HANDBOOK FOR THE DECEASED: RE-EVALUATING LITERATURE AND FOLKLORE IN ICELANDIC ARCHAEOLOGY

by

BRENDA PREHAL

A dissertation submitted to the Graduate Faculty in Anthropology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

2021

Handbook for the Deceased:
Re-evaluating Literature and Folklore in Icelandic Archaeology

by

Brenda Prehal

This manuscript has been read and accepted for the Graduate Faculty in Anthropology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

Date	Thomas McGovern Chair of Examining Committee
Date	Jeff Maskovsky Executive Officer

Supervisory Committee:

Timothy Pugh

Astrid Ogilvie

Adolf Friðriksson

THE CITY UNIVERSITY OF NEW YORK

ABSTRACT

Handbook for the Deceased: Re-Evaluating Literature and Folklore in Icelandic Archaeology

by
Brenda Prehal

Advisor: Thomas McGovern

The rich medieval Icelandic literary record, comprised of mythology, sagas, poetry, law codes and post-medieval folklore, has provided invaluable source material for previous generations of scholars attempting to reconstruct a pagan Scandinavian Viking Age worldview. In modern Icelandic archaeology, however, the Icelandic literary record, apart from official documents such as censuses, has not been considered a viable source for interpretation since the early 20th century. Although the Icelandic corpus is problematic in several ways, it is a source that *should be* used in Icelandic archaeological interpretation, if used properly with source criticism.

This dissertation aims to advance Icelandic archaeological theory by reintegrating the medieval and post-medieval Icelandic literary corpus back into archaeological interpretation. The literature can help archaeologists working in Iceland to find pagan religious themes that span time and place. Utilizing source criticism as well as interdisciplinary methods, such as animal aDNA, this work presents two case studies of often ignored grave goods. These grave goods are found in both Icelandic pagan graves as well as in the graves of the pagan Scandinavian homelands, spanning from the Stone Age up until the Middle Ages.

ACKNOWLEDGEMENTS

I would like to start by thanking my close family and friends for supporting me emotionally for all these years, especially my parents. Dearest friends, you know who you are.

My committee is made up of incredibly talented and insightful scholars, whom I am very grateful for. Thank you to Tom McGovern for allowing me to attend the field school in the Westfjords of Iceland many, many years ago: I am still in Iceland. Thank you to Adolf Friðriksson who inspires and encourages my love of the strange. I would also like to thank Tim Pugh for also encouraging this as well as helping me with putting together my first ever course I taught, "Magic, Witchcraft, and Religion." Astrid Ogilvie has been a huge inspiration for how to properly criticize source material and apply it to archaeology.

Many colleagues along the way have also been a tremendous asset, especially those at CUNY and at Fornleifastofnun Íslands. CUNY colleagues, Sant Mukh Khalsa, Ceecee Cesario, Megan Hicks, Cameron Turley, Frank Feeley, and Ramona Harrison, thank you for either letting me dig holes in your sites and/or also for crying in class with me. Thank you to Sólveig Beck for helping me with my weird little stones. Thank you also to Lilja Björk Pálsdóttir for the great fun and for showing me your amazing archaeology skills. Thank you to Guðrun Alda Gísladóttir for providing unlimited data, artifacts, and beer access. Hildur Gestsdóttir deserves a huge thanks for teaching me how to excavate my first graves. Howell Roberts also deserves a thanks for making me walk through a horrible bog for weeks to excavate a really fun pagan cemetery in the middle of nowhere. Thanks to Lisabet Guðmundarsdóttir and Dawn Elise Mooney for suffering in those walks with me.

Other colleagues I would like to thank are: Terry Gunnell, for being an inspiration in interdisciplinary collaboration; Ármann Guðmundsson for helping me navigate the National Museum of Iceland's storage; Liv Aurdal for sharing similar ideas; Kolbrún Kolbeinsdóttir and Kristine Mærsk Werner for helping me translate Icelandic and Danish; Vicki Szabo for attempting to do cool stuff with cats with me; Eva-Marie Geigl for doing the cool stuff with cats with me; Anne Birgitte Gotfredsen and Kristian Murphey Gregersen of The Danish Zoological Museum, University of Copenhagen for combing through their databases for me; and Susanne Bjerknæs Petersen from the Agency for Culture and Palaces of Denmark for combing through her database as well.

Lastly, I would like to thank the *Leifur Eiríksson Foundation* for financially supporting my research in Iceland.

CONTENTS

DEDICATION

This work is dedicated to:

My daughter, Eydís Líf,
who inspires me every day.

And to my husband, Ingvi,
whose unconditional support has been a lifeline.

TABLES

FIGURES

APPENDICES

GLOSSARY

Burial Site: A specific geographical location with one or more burials. These burials can be pagan or Christian; inhumations or cremations; or any combination. The term includes burial mounds, boat burials, stone settings, cairns, and flatmarked graves. Burial sites can also be cairns/stone settings that no longer contain human remains but do have artifacts. Specific burial sites in Iceland are referred to by their farm name, such as the Ingiriðarstaðir burial site. Specific burial sites in other countries are referred to by the area they are found in, as they are cited in their individual databases.

Cemetery/Grave field: Used to define a burial site with four or more burials.

Cosmology: I use Hicks' (2010:20) definition which states that cosmology consists of myths that make up an all-embracing system of classification explaining how the universe came to be, including the spiritual and human worlds.

Document: An official written record, e.g., censuses and annals

Grave: The literal hole in the ground where humans and/or animals are buried. One grave can contain one or more skeletons or cremations. Specific graves are referred to with their specific numbers, i.e. Vs Västerås, Tuna Gr. 33.

Literature: "Writings in prose or verse; especially writings having excellence of form or expression and expressing ideas of permanent or universal interest." *Merriam-Webster Dictionary, 2020.*

Magic: Frazer's 1922 definition is used where magicians perform magic rituals to obtain immediate results without the aid of spiritual beings; something akin to pseudoscience. In the

Icelandic tradition, there are at least two types of magic: *galdur* and *seiður*. They have subtle differences, but they will be grouped together under 'magic' for this dissertation.

Myth: Hicks' (2010:xvii) definition will be used here, which is a story that explains the unexplainable, such as death, customs, landscape features, etc. Myths also transmit beliefs about various views of the world to their listeners.

Norse: Refers to the cultural group of people originating from Norway, Sweden, and Denmark, and who settled in Iceland, Greenland, the Faroe Islands, and the British Isles from roughly AD 700 – 1100.

Pagan: Refers to Nordic European religions based in local religious traditions that share overarching themes. These religions flourished before Christianity was introduced to Northern Europe. However, these religions did coincide with Christianity for a short period of time during conversion. I will use this term when referring to the religion of the Norse culture, except when quoting other scholars who prefer to use "Pre-Christian".

Pre-Christian: Some scholars choose to denote pagan cultures in comparison to Christianity. I do like to define a culture by comparing it to another, so this will only be used when quoting other scholars.

Religion: There is no one universal definition, so I will utilize Tylor's (1871:424) "belief in spiritual beings," and belief in life after death that a particular group adheres to as the simplest explanation.

Ritual: "…repetitive forms of behavior that are carried out on socially prescribed occasions and that convey messages whose meaning may-or may not-be explicitly known to the participants" (Hicks 2010: xxii). Ritual can be used to denote both religious and non-religious acts. For this dissertation, ritual will refer only to religious acts.

Scandinavia: This term denotes the geographical area of the Scandinavian Peninsula in Northern Europe. This geographical area now includes the countries of Norway, Sweden and Denmark. However, culturally speaking, Scandinavian also refers to groups in Iceland, Greenland, and the Faroes, as well as occasionally Finland.

Symbol: Turner (1975:152;155) is used here. A symbol is something that a group agrees represents or recalls something else by association and/or similar qualities. Symbols are different from signs in that symbols are metaphors and carry multiple meanings.

Text: Any written or printed work.

Viking: Commonly used term for all Viking Age Scandinavian groups. However, for this dissertation, the historical and academic definition will be used. Here, Viking refers specifically to the seafaring raiders from Norse areas (AD 8^{th} – 11^{th} C.).

Worldview: How a culture or individual experiences and interprets the universe and their place within it. "The way the world looks to that people looking out" (Redfield 1952:30).

LANGUAGE CONVENTIONS

Both the modern Icelandic and Old Icelandic/Norse languages contain letters and sounds not found in the English language. Many translations of the medieval Icelandic texts and later literature utilize English spellings. For the purposes of this dissertation, however, I will strictly use modern Icelandic letters and spellings for names, places, and terms, except for direct quotes from other scholars who use varying English spellings.

The Icelandic/Old Norse letters and sounds not found in English are:

- **Þ, þ** = Pronounced as voiceless "th" as in "thing" in English and almost always comes at the beginning of a word; English translations use "th", so *þorp* (village) is *thorp*.
- **Ð, ð** = Pronounced as voiced "th" as in "there" in English and is never at the beginning of a word; English translations use "d", so *veður* (weather) is *vedur*.
- ***Æ, æ*** = Pronounced as "eye" in English; so *æsir* (gods) is pronounced eye-sear; sometimes written as "ae" in English.
- **J** = Pronounced as a Y, so *hjalp* (help) is pronounced "hyalp".
- **LL, ll** = Double L is usually pronounced with a "T insertion", so *vellir* (fields) is pronounced "vetlear".
- **Á/á; É/é; Í/í; Ó/ó; Ö/ö; Ú/ú; Ý/ý** = The other vowels used in Modern Icelandic, but their pronunciation, along with the diphthongs, are not necessary here.

When utilizing the modern Icelandic spellings, I will only use the Nominative Case instead of declining, except when directly quoting other scholars or originals. Both modern Icelandic and Old Norse have many declensions and can make spellings vary greatly, hence making it quite

confusing for English speakers. For example, Snorri will remain Snorri instead of declining to Snorra.

CHAPTER ONE

INTRODUCTION

The scratching of a quill on vellum accompanies the flicker of candles. A middle-aged man, dressed in fine woolen clothes, strains his eyes as he writes. He is determined to write down stories, which have been circulating and evolving, across mountains and oceans, for countless generations. Stories of gods and giants, of magical creatures, and heroes of an ephemeral and fathomless past.

It is around the year AD 1220 and Snorri Sturluson, a lawyer, powerful chieftain, ambassador, and poet, is writing down what we call the Prose Edda[1]. He is writing down the journeys of Thor, Oðinn, and Loki; the beginning and end of Time and Space; of life and death; of human purpose. All things all humans have ever asked about the unanswerable. He is writing The Norse Mythology. Through this small, medieval window, we see a glimpse into the worldview of the people we call "the Vikings."

This keeper of the myths of old led a life as adventurous and dramatic as the stories he wrote down. Crossing treacherous seas, holding court with kings, delving into political intrigue, and betrayal. But why did this Christian leader take it upon himself to preserve the mythology of his heathen ancestors? Was it for pure love of the past, a love for the dramatic, or was it a pawn's move in a king's game? How close was he to the truth? Is truth something that is dependent on time and space? Many scholars have attempted to explain Snorri's intentions. Snorri's "why" is a heavily debated topic and is not my interest, nor my goal. It is the "why" of his ancestors he gave voice to that I am interested in.

[1] Snorri most likely dictated all or most of his works to a scribe(s) rather than write himself (Johansson 1997:324; Tómasson 2002:795,798-9).

1.1. The Argument

Before this work, modern Icelandic archaeology shied heavily away from the use of medieval and post-medieval Icelandic literature to interpret pagan Norse religion in Iceland. The goal of this dissertation is to change this mindset and redirect Icelandic archaeological thinking back to the literary record, with the incorporation of source criticism. This work will attempt to demonstrate that medieval and post-medieval Icelandic literature, despite their flaws, are in fact important resources in archaeological interpretation of pagan Norse Icelandic religion.

The rich medieval Icelandic literary record is comprised of mythology, sagas, poetry, and law codes. The post-medieval literature encompasses grimoires and folklore. Both categories have provided invaluable source material for previous generations of scholars attempting to reconstruct a pagan Scandinavian and Icelandic Viking Age worldview. The Icelandic literary record is also the national treasure of Iceland. For centuries, it has been the main source of Icelandic pride, as it is the sole keeper of Norse mythology and legends of the "Golden Age of the Vikings" (Friðriksson 1994).

In modern Icelandic archaeology, however, the Icelandic literary record is almost rejected outright in interpretation of pagan religion. The prevailing mindset is that the literature is too flawed, and its use contradicts the science of archaeology. Perhaps this is due to the dubious past of Icelandic antiquarians who took the literature too literally. There is also the problem of the motives and biases of the writers, which gives archaeologists pause.

However, this leaves a major gap in the field, as the archaeology can only tell us so much on its own. The items and structures left in the ground cannot fully explain the religious intentions and beliefs that were behind them. Without literature, one can only speculate to a very low degree. The literary corpus of Iceland can put meat on the bones, so to say, and although the literature is

problematic, its benefits far outweigh the flaws. The archaeology and the Icelandic literature are not enemies, but are rather, friends.

Archaeologists in Scandinavia have been using the Icelandic literature to interpret pagan religion for centuries. Neil Price (2000a et seq.), however, has been a pioneer in using the literary sources to interpret Norse pagan religion and ritual, while simultaneously understanding their limits. This dissertation aims to bring this Price-style of archaeological interpretation to Icelandic archaeology, particularly of Norse pagan Icelandic religion. This work is the first to attempt to validate the Icelandic literary corpus as a valuable resource in Icelandic archaeology with regards to Norse pagan religion.

1.2. Scope and Limitations

To accomplish the aforementioned goals, this dissertation uses two case studies. As mortuary practices are the most likely of archaeological remains to reveal prehistoric religious belief systems (Renfrew 1994; Parker-Pearson 1999; Gowland and Knüsel 2006), the case studies focus on pagan Icelandic burial practices. Specifically, the two case studies spotlight overlooked and under-interpreted grave goods found in Icelandic Viking Age pagan burial contexts: cats and crystals/white pebbles.

To conduct these case studies, previously excavated Icelandic Viking Age burials are compared with excavated Scandinavian burials spanning from the Stone Age up until the Middle Ages, with an emphasis on the Iron Age. Common themes and motifs found across time and location in Scandinavian archaeology are applied to the Icelandic Viking Age pagan burial record. These themes and motifs are then referenced to available/accessible Icelandic literature, ranging

from medieval literature to modern folklore. Some ritual contexts outside of burials are used, both in Iceland and Scandinavia, as well, with the same process applied.

To be specific, Scandinavian archaeological sites only include Norway, Sweden, and Denmark. Other areas within the Viking diaspora, except Iceland, are outside the scope of this dissertation. Also outside the scope are written works by foreign contemporaries, such as of Adam of Bremen and Ahmad ibn Fadlan. The validity and usefulness of outside foreign accounts of the Proto-Norse and Norse requires a full and whole other examination. The Saami culture in Scandinavia, which had relationships with and influence on the Proto-Norse and Norse, is also excluded as it also deserves its own investigation.

For the cats case study, I chose only to include identifiable domesticated cat samples. Wildcats were included for the sake of argument for a long human relationship with felines in Scandinavia, which can be found in **Appendix F and G**. Lynx and other wild feline species were excluded altogether as they are not of close enough size or demeanor to domestic cats. For the quartz case study, I chose only to include white or clear stones that did not have a clear function. Strike-a-lites, for example, have their own sacred significance as fire-starters and fall within a different category of symbolic study.

The difficulty in integrating literary material unfortunately goes beyond Icelandic archaeologists' skepticism. It additionally involves an extensive backlog of previously excavated sites and funding issues that do not leave any time for more robust investigations. Equally problematic is that most site reports are written only in Icelandic, which precludes peer review and discussion outside of Iceland. These issues will only briefly be discussed as they lie outside the scope of this research, as well.

There are limitations on the available archaeological records from Scandinavia. Not only are the archaeological data extremely variable, they are constantly being updated. Therefore, there is the limitation of working with a dataset from a particular point in time. There is also the limitation of the unavailability of certain Icelandic literary works, as well as the limitations of the author to translate them. Therefore, the author must rely on Icelandic manuscript and language scholars. A limit is also in place for the amount of source criticism necessary. An archaeologist wanting to use the Icelandic literary records should not have to spend decades studying the manuscripts. A basic knowledge of the sources and their constraints should be all that is required for an archaeologist.

1.3. State of the Art

1.3.1. History of Scandinavian Archaeology

Archaeology in Scandinavia began in the early 17th century. Inspired by English historians and their work documenting monuments, Scandinavians began to do the same. As part of patriotic movements, Scandinavian royals sponsored antiquarians to document their local histories. During this time, the first museums were established to house man-made cultural objects and laws were established to protect ancient monuments.

Notable work accomplished during this time was the documentation of Iron Age runestones and their inscriptions across Scandinavia by Ole Worm and Johan Bure. Some of the first to excavate and record, however, were Olof Rudbeck of Sweden and Erik Pontoppidan of Denmark. Rudbeck trenched the large burial mounds at Gamla Uppsala in Sweden to determine their relative ages. Pontoppidan excavated a multi-age use megalithic tomb in Sjaelland also to determine the relative dates within the mound. At the end of the 17th century, antiquarian research fizzled in

Denmark and Sweden due to a lack of funding (Klindt-Jensen 1975:14-21; 35-36; Trigger 1989:49; 64).

It was not until the early 19th century that antiquarian research once again gathered momentum. Patriotism, again, was an inspiration. This time, however, it focused on not just the collection and categorization of monuments and objects, but on the "the evolution of the ways of life throughout prehistoric times," (Trigger 1989:80). In the first half of the 19th century, Danish antiquarian Christian Jürgensen Thomsen introduced the Three Age System for Prehistoric Scandinavia (the Stone Age, the Bronze Age and early/late Iron Ages). Thomsen also created a typology and seriation for the evolution of prehistoric Scandinavian technologies.

In the second half of the 19th century, Thomsen´s student, Jens Jacob Asmussen Worsaae, was the first professional prehistoric archaeologist and was one of the first to see archaeology as a science. Worsaae contributed paleobotany and archaeological stratification to the field (Klindt-Jensen 1975:71-73; Trigger 1989:73-87). Also in the late 19th century, Swede Oscar Montelius reworked Thomsen´s Three Age System by turning the Nordic Iron into three segments instead of two (now, the Pre-Roman, Roman, and Germanic Iron Ages). During this time, Olof Rygh identified "Stone Age Cultures" in Norway and Sophus Müller identified multiple contemporary Neolithic cultures in Denmark. In Sweden, Sven Nilsson wrote about the development of subsistence economies instead of technological advancements and used ethnographic parallels for wear patterns on artifacts to determine their functions (Klindt-Jensen:87-96; Trigger 1989:80; 156-173).

The late 19th and early 20th centuries saw the excavations of important Nordic Iron Age monumental burials. In Sweden, Bror Emil Hildebrand excavated the mounds of Gamla Uppsala and Hjalmar Stolpe excavated a mound at Vendel (1881-3) and the cemeteries at Birka (1888-9).

In Norway, Nicolay Nicolaysen excavated the mounds at Borre (1851-2) and Gokstad (1882). The Gokstad mound produced a well-preserved early Viking age ship. In 1903, Gabriel Gustafson and Haakon Shetelig excavated another well-preserved Viking Age mound containing a funerary ship. This extravagant and lavish burial was the Oseberg mound. These excavations were of a historical antiquarian nature (Sjøvold 1966).

To summarize, the traditional archaeological approach to archaeology in Scandinavia has been chronology and seriation, i.e. Schnittger (1922) and Wilson and Klindt-Jensen (1966). However, thoughts about ancient pagan religion in the North did arise as well as attempts to reconstruct ancient beliefs and religious rituals.

1.3.2. Scandinavian Archaeology and Pagan Religion

As early as the 18th century, Scandinavian antiquarians and archaeologists have thought about pagan religion in the Nordic world. As a standard, the medieval Icelandic literature was used as a basis for the reconstruction of pagan religions of Scandinavia. However, there has always been the problem about the reliability of the Icelandic sources. To overcome this enormous hurdle, scholars have taken two approaches.

The first approach was to compare the information about pagan Norse religion and ritual from the medieval Icelandic literature to the information from contemporary accounts by foreigners, as well as to linguistic evidence found in placenames, runestones, etc. The second was to use archaeological materials as evidence of the veracity of the medieval Icelandic literature (Petersen 1876; Andrén 2007:105-106).

For example, Berhard Salin (1902; 1903) connected imagery on gold bracteates to particular gods, such as ravens to Oðinn. However, Salin was a product of his time. He aimed to

give a chronology to pagan religion in Scandianvia in the same way as artifacts. This was to study the cultural influences on Scandinavia over time and not the religion itself (Gräslund 2020:81).

In 1937, Haakon Shetelig and Hjalmar Falk produced an English translated book called *Scandinavian Archaeology*. In this work, they drew from Frazer´s *Golden Bough* and delved into Norse pagan religion by means of comparisons to the ancient Romans and Germans. Shetelig and Falk (1937:421-4) discussed evidence of ritual in archaeology but did so with heavy reliance on medieval Icelandic literature and foreign contemporaries for pagan religious concepts, such as sacrifice, magic power, and ancestor worship. For example, placenames, Snorri Sturluson´s *Edda*, Adam of Bremen´s account of Gamla Uppsala (*Gesta Hammaburgensis ecclesiae pontificum,* AD 1076), and linguistics were used as evidence for pagan ´temples´ in prehistoric Scandinavia.

The approach used by Shetelig and Falk was very in depth and quite informed. However, it relied too heavily on the literature without explaining its complexities. Their interpretation of the medieval Icelandic literature was as if Viking Age pagans wrote it and not medieval Christians. There was no source criticism and that is a problem. Shetelig and Falk (1937:432) themselves also had a Christian bias, as they saw the pagan concept of the afterlife as bland compared to the Christian Paradise.

In 1969, Hilda Ellis Davidson and Peter Gelling produced their important work, *The Chariot of the Sun,* which systematically examined prehistoric Scandinavian religious themes and motifs. Beginning with the Bronze Age, Davidson and Gelling discussed common motifs found in rock carvings across Scandinavia. There is a uniformity to these motifs despite the long distances between the carvings, which suggests a shared cultural identity. By systematically and objectively categorizing the motifs, shared fundamental religious themes could be identified. To demonstrate, parallels of foreign religions were discussed, but not as evidence.

Ellis Davidson and Gelling continued by tracing these themes and motifs through time. They found that symbols and motifs were reworked several times throughout the ages, but the underlying core religious themes remained intact, such as the veneration of the sun. These motifs were found in archaeology and in medieval literature up until the introduction of Christianity. *The Chariot of the Sun* is a very important work as it employed a systematic and objective approach to attempt to interpret a subjective religion. There is an attempt to give meaning to the symbols and motifs and hence an attempt to understand pagan religious thought. Ellis Davidson (et seq.) has produced many other works on ancient religion in the Nordic world, all of which are inspiring and follow along similar veins as *The Chariot of the Sun*.

Soon after, in 1970, Ole Klindt-Jensen wrote his *World of Vikings*, which also discussed pagan religion in Scandinavia. Klindt-Jensen's focus, however, was the Viking Age. Several methods were used in this work, including modern religious analogy, and the application of medieval Icelandic literature and foreign contemporary accounts to archaeology. For example, the picture stones of Gotland were compared to myths found in the medieval literature. The themes and motifs of the pagan era even carried into the medieval Christian world, in the form of church art. Although Klindt-Jensen does understand that analogies and literary comparisons are risky and can be misleading, he does not seem to recognize his own bias. For example, Klindt-Jensen (1970:217) describes the pagan mortuary practices as, “barbaric and horrible,” which is problematic.

However, new approaches to addressing the problems of the medieval Icelandic literature came throughout the 1990s and early 2000s. This was due to changes in both religious studies and material culture studies within archaeology (Andrén 2007:106). Archaeologists then began asking

questions about religion and how it related to gender, collective identity, mechanisms of kingship, and construction of elite identity (Jochens 1995; Norr 1998; Herschend 1997; Sundkvist 2001).

Several prominent Scandinavian archaeologists who focus on pagan religion in the Nordic world have emerged over the past few decades. Stefan Brink (1990; 2001; 2007) wrote about pagan cult sites as well as landscape symbology and variance within pagan religion. Anders Andrén (1991 et seq.) has also been vital in exploring landscape symbology as well as Norse cosmology within archaeology. Material culture from Norse ritual activity as well as human and animal relationships has been examined by Anne-Sofie Gräslund (2000; 2004; 2008), Lotte Hedeager (2003; 2011) and Kristina Jennbert (2006; 2011).

Neil Price (2000a et seq.), however, has emerged as a pioneer in the realm of archaeology and ancient Scandinavian religion. Price's most important work, for which this dissertation takes as example, is *The Viking Way: Magic and Mind in Late Iron Age Scandinavia* (2002, 2nd ed. 2019). *The Viking Way* was a ground-breaking dissertation that explored the Norse religious mindset via archaeology and Icelandic literary sources. Price's work was pioneering in that he made leaps in interpretations and ran with them, while simultaneously using large data patterns, especially in burials, to stay grounded. Price used systematic archaeological classification and categorization of sites, manmade constructions, and artifacts alongside religious themes and motifs found within the Icelandic literature. *The Viking Way* also focused on ancient cosmology and beliefs as important in their own rights.

Another key work guiding this dissertation is *Old Norse Religion in Long-term Perspectives: Origins, Changes and Interactions* (2006), edited by Anders Andrén, Kristina Jennbert, and Catharina Raudvere. This is a compilation of lectures from an international conference given at Lund, Sweden in 2004. The contributions to this book include discussions on

Norse worldview/cosmology in archaeology; ritual/religious practice and cult sites in archaeology; and myth in archaeology. Many of these contributions not only look at meaning in pagan ritual and religion, but also use medieval Icelandic literature and contemporary outside sources as means of discussion.

There are two books on ancient Scandinavian burial practices that have been extremely influential particularly to this dissertation. This first is *The Materiality of Death: Bodies, Burials, Beliefs* (2008), which is also a collection of papers from a conference (EAA session, Krakow, 2006). Archaeologists discussed pagan cosmology and religious beliefs in relation to death, as found in archaeology. They did so in conjunction with themes and motifs found in the medieval Icelandic literature. For example, Johansson (2008) and Grön (2008) looked at bridges in Viking Age Swedish archaeology alongside their representation in the Norse mythology.

The second book is *Dealing with the Dead: Archaeological Perspectives on Prehistoric Scandinavian Burial Ritual* (2005), edited by Tore Artelius and Fredrik Svanberg. Topics covered in this book have a symbolic focus. For example, chapters deal with grave good symbology, landscape symbology, and fire symbology.

1.3.3. Icelandic Archaeology

When delving into religious theory in Icelandic archaeology, the progressive aforementioned approaches have mostly been avoided. Icelandic archaeologists tend to stay away from "too much interpretation" as far as religion and ritual is concerned, especially if that interpretation has anything to do with the Icelandic literary corpus. To understand the stagnation of Icelandic theory, it is necessary to provide a brief history on archaeological thought in the country.

Icelandic archaeological theory can be traced back to the 12th century. Medieval Icelanders attempted to understand their history and origins by compiling accounts of their ancestors and their arrival in Iceland around 300 years earlier into written documents. It is from these medieval compilations of settlement stories and other sagas of the original settlers that archaeological theory in Iceland sprang forth.

Antiquarians in Iceland then looked to the medieval Icelandic literature to establish physical locations in the archaeological record of historic locations cited in the sagas. As archaeological theory developed over the centuries, the use of the medieval texts became outdated and was quickly viewed as severely flawed and therefore not useful. The view on using the medieval texts in Icelandic archaeology has remained this way up until very recently. It is only now that Icelandic archaeologists are just beginning to see the texts' potentials as essential resources in interpretation.

As long as the literary sources are used in the proper framework alongside the hard science, these texts potentially hold a wealth of possibilities in archaeological theory. As one of the current directors of the *Institute of Archaeology Iceland (FSÍ),* Adolf Friðriksson, says, these texts, along with place-names, and folklore, "have formed the cosmology of Icelandic archaeology" (Friðriksson 1994:16) and are therefore are imperative in understanding archaeological theory in Iceland.

1.3.3.1. Antiquarianism in Iceland

Íslendingabók (early 12th C.) and *Landnámabók* (13-14th C.) are the first attempts by Icelanders to establish their own history. In these compilations, meaning "Book of Icelanders" and "Book of Settlement," the medieval authors often write about farm ruins and ancient burial mounds

associated with the first settlers of the 10th-11th C. This was likely motivated by not only a longstanding interest in folklore and legend, but by a desire to establish unquestionable written claims to land. During the Middle Ages, several more documents, such as *Biskupasögur* (the Sagas of the Bishops) and the *Poetic* and *Prose Eddas* (where we derive Norse mythology from) were also written. As most of these written documents come from the Middle Ages and refer to pre-Medieval Norse times, most early archaeological investigations have dealt with these eras (Friðriksson 1994; Lucas and Parigoris 2013).

When Iceland fell under the dominion of Denmark (along with Norway) in the late 14th century, the little island country was left with questions of identity. As the political climate changed in the 17th-19th centuries, Antiquarianism in Iceland concerned itself with monuments of its great past. Momigliano (1990:58) defines Antiquarianism as, "systematic descriptions of ancient institutions, religion, law, finances." In the 17th and 18th centuries, learned erudite men concerned themselves with collecting antiquities from various cultures with systematic yet disconnected detail. Antiquarian theory thus dealt with the "customs and morals of the ancients" and Antiquarian practice (archaeology) dealt with "monuments" (Marchand 2007:3).

In 1609, Arngrímur Jónsson published the first modern collective history of Iceland, called *Crymogæa* (meaning "Iceland" in Greek). Since Iceland had no large international wars or great modern heroes to lay claim to, Arngrímur used the medieval texts as the foundation of Iceland's national pride. Iceland likely felt a growing need for a national identity on par with the rest of Europe, as 53 years later, Iceland was forced to accept Denmark's absolute rule.

Trigger (1984) points out that it is common for cultures to use history/archaeology in this way to establish their nation's validity. Iceland has continually used the medieval literature to legitimate itself as, "Iceland was often portrayed as a backward, uncivilized place by the increasing

number of tourists and scientific expeditions who went there from the mid- eighteenth century" (Lucas and Parigoris 2013:97). Prior to *Crymogæa,* Arngrímur penned *Brevis Commentarius de Islandia* (*A Brief Commentary on Iceland)* in 1593 defending Iceland against the derogatory writings of foreigners who had never even set foot in the country (Middel 2016:112-113; Ogilvie 2018:83-84; Ogilvie 2020:12).

In the 17th and 18th centuries, antiquarians such as Árni Magnússon and Jón Ólafsson began interesting themselves in Iceland's barrows and other ruins. However, Icelandic Antiquarianism did not really pick up until the 19th century when the *Danish Royal Commission for the Preservation of Antiquities* "undertook a systematic survey of the realm of the Danish king" (Friðriksson 1994:6). It was Denmark's prerogative to use Icelanders as, "the custodians of the Danish national (or even pan-Scandinavian) heritage, linguistic and cultural" (Lucas and Parigoris 2013:97).

The Collection of Icelandic Antiquities was founded in 1863 and the *Archaeological Society* in 1879. Jónas Hallgrímsson was the first to excavate in Iceland, but Sigurður Vigfússon became the leader in Icelandic archaeology in the mid-late 19th century. Daniel Bruun, a Danish antiquarian working in Iceland, published the first book on Icelandic archaeology in 1897. The first official academic antiquarian was Matthías Þorðarson, appointed in 1907.

Once again, burial mounds and farm ruins associated with characters in the Icelandic texts were the focus of 19th century excavations in Iceland. It is no surprise that it was the Icelandic member of the Danish Royal Commission, Finnur Magnússon, as well as local Icelanders who were in charge of the surveys. Their national pride was reflected in the ruins' and burials' association with their own folklore and medieval texts.

The focus of archaeological investigations at this time was on preserving and illuminating archaeological remains, as well as increasing the knowledge of the sagas and early traditions; to prove the sagas correct with excavations (Friðriksson 1994:182). Icelandic archaeologists only focused on single sites possibly connected to the literature and not on any particular aspects or overarching themes. Icelandic archaeology found itself in a crucial position because it was used to serve a Danish colonial agenda as well as a national Icelandic one.

It was not until 1904 that Iceland was granted home rule from Denmark. The decades leading up to this hallmark were filled with Icelandic nationalist movements with gradual progression towards independence. Instead of archaeology being the main focus of nationalist discourse, however, it was "Iceland's medieval literary heritage [that] was a far more powerful tool in the fight for independence…because it demonstrated Iceland's right to be counted as a modernizing and advanced nation." Nevertheless, archaeology did become a source of national Icelandic pride because it was entangled with the literature, thus making "non-descript sites into monuments" (Lucas and Parigoris 2013:99).

The Icelandic "Saga Age" became the representative of the Icelandic nationalist movement. "In the latter half of the nineteenth century there emerged a growing desire to preserve Icelandic antiquities as they were the objective confirmation of the great past" (Friðriksson 1994:8). Any antiquities and archaeology not from this "Saga Age" were ignored, as they did not reflect the grandeur of a supposed great Icelandic historic past. Archaeologists and antiquarians were also fascinated with excavating outlaws' caves at this time. Perhaps this is also a reflection of identifying with separation sentiments coinciding with Iceland's desire for separation from Denmark.

Margrét Hermanns-Auðardóttir (1991) suggests that the nationalist social and political movements of the 19th and 20th centuries had a huge impact on Icelandic archaeology and that these influences are still present today. All throughout the 19th century, the medieval Icelandic texts were used to decide which archaeological sites to excavate. Antiquarians believed that "The accounts in the literature were not only true, but also offered details of events, people, and places. The relics from this period of heroism and grandeur could be observed in the landscape, and in return, by excavation and survey, the sagas could be verified" (Friðriksson 1994:182). At the turn of the 20th century, however, a huge shift occurred in the opinion on the texts' accuracy and usefulness.

1.3.3.2. Processualism in Iceland

Leading up to Processualism, the early 20th century saw advancements in scientific thought and inquiry. Scholars in Iceland began paying more attention to the variability in saga accounts and started creating categories of their reliability. This had a great effect on Icelandic archaeology, as many sagas connected to archaeological sites were now being looked at as entirely fictional and therefore not useful. While the Culture-Historical Approach was in effect in North American archaeology in the 1930s-1940s (Vere Gordon Childe 1944; Julian Steward 1942), Icelandic archaeology was slowly progressing and leaving antiquarianism behind.

Slowly but surely, Icelandic archaeology began leaving out the connections to the medieval texts altogether, culminating with Kristján Eldjárn's (1956) groundbreaking doctoral dissertation, *Kuml og haugfé* (Pre-Christian Graves and Grave Goods). His dissertation was a complete and systematic catalogue of the pre-Christian graves absolutely free of literary references. Eldjárn was the first to use the Culture-Historical typology of weapons and ornaments in reference to Icelandic

material. He also eventually concluded that the role of archaeology was to "create cultural history" as opposed to describing "historical occurrences" (Friðriksson 1994:186).

Although archaeological theory in Iceland was progressing with advances in science, and scholars were beginning to question the validity of the literature, it is questionable whether to refer to this period as using the Culture-Historical paradigm. The medieval literature was still heavily in use as reference to archaeological sites in the same ways as earlier decades, even after Eldjárn's pioneering dissertation.

Although Eldjárn was likely a Culture-Historicalist, as he was influenced by mainland Scandinavian theory, and was concerned with "typologies" and "phases" of Icelandic archaeology, he was in the minority at this time. Most of Icelandic archaeology was still focused on proving or disproving the medieval literature and continued so for a very long time. Even well into the 1970s, Eldjárn pleaded at a conference in Reykjavik (1974) to be extremely careful about using an archaeological site to make new discoveries about a particular original settler (Friðriksson 1994:14).

This period should, perhaps, rather be referred to as Literary Analogy than Culture-Historical as the dominant themes were still focused on using the medieval texts as main references to excavation sites. Literary Analogy is the term used to describe the use of early historical documents (sagas, Eddas, etc.), placenames and folklore in Icelandic archaeology. Although this period saw advancements from the simple collections of Antiquarianism, it still lacked in finding more scientific ways in dealing with the medieval texts and folklore (Friðriksson 1994:14). Literary Analogy was still well in use up until the 1980s, despite Eldjárn's advancements.

Kristján Eldjárn was a monumental figure in Icelandic archaeology as he was a major influence in pushing towards Processualism later in his career. He was the first to comprehensively

examine the relationship between archaeology, placenames, and the medieval texts. He questioned why the medieval texts were written in the first place: for pure historical interest, to prove Icelanders were descendants of royalty, to reinforce elite landownership? Or perhaps even as Christian propaganda?

Processualism was dominant in the 1960s-1970s in North America and saw archaeology purely as a science focusing on cultural processes. Out of it came new archaeological methodologies integrating multiple new types of data. Important scholars, such as Sally and Lewis Binford (1968), Kent V. Flannery (1967), and David L. Clarke (1973), emerged and have greatly contributed to modern archaeological practice.

However, Processualism did not become popular in Icelandic archaeology until the 1980s and 1990s when the rest of Europe and North America were progressing into Post-Processualism. There was a sudden movement in the 1980s to completely abandon the use of the medieval texts altogether in Icelandic archaeology in favor of strictly using hard science. Perhaps this was a result of Iceland running to catch up?

Hermanns-Auðardóttir (1991) and Einarsson (1989) critique the longstanding practice of referencing Icelandic literature in archaeology by stating that Icelandic archaeology can stand alone without the literature. Einarsson (1989) set out, in Processualist fashion, to markedly move away from this tradition by creating new research goals in Icelandic archaeology. He wanted to find new ways of studying the colonization of Iceland that did not involve referencing the medieval literature. At a farm site in northern Iceland, Einarsson used tephrochronology and radiocarbon samples to study the beginnings of farm settlements.

Much of the Processualist movement in Iceland has focused on using zooarchaeology, archaeobotany, and tephrochronology to study trade and settlement patterns. Any other kinds of

alternative interpretations have mostly been left out. There were no real attempts at identifying past belief systems. Only functional, truly Processualist investigations were carried out. Leading scholars in the field have been/are zooarchaeologists Tom McGovern (et al. 1988, 2006, 2014.) and Sophia Perdikaris (McGovern et al. 2006), with significant research done on settlement impact on environment and vice versa. Further ground-breaking research on human and landscape relationships has been undertaken by geologists such as Andrew Dugmore (et al. 2000, 2005, 2013), and archaeologists such as Doug Bolender (2007, 2015).

Scholars have also focused on the social and environmental impacts of the conversion to Christianity. Examples are Jenny Jochens (1995) and Orri Vésteinsson (2005) who has done extensive examinations of medieval Church patterns as well as on overall impacts of Christianity in Iceland. Hildur Gestsdóttir (2014) has been instrumental in investigating medieval Christian cemetery patterns as well as human osteology looking at diet, health, and pathology. Guðný Zoëga (2014) has also researched early church patterns in northern Iceland, with Douglas Bolender and John Steinberg in their project called the *Skagafjörður Church and Settlement Survey* (*SCASS*).

Processualism has dominated Icelandic archaeology up until very recently. As mentioned earlier, Icelandic archaeological theory has had trouble keeping up with current trends outside of Iceland and therefore change comes very slowly. There have been some attempts at Post-Processualism, but for the most part, the theoretical shift has not yet taken place.

1.3.3.3. Modern Archaeological Approaches in Iceland

The 1980s saw the emergence of Post-Processualism. Archaeologists, such as Ian Hodder (1984) and Bruce Trigger (1989), critiqued Processualism by stating that more interpretive

perspectives needed to be examined, as well. They paved the way with creating a new paradigm that expanded Processualism by adding fields such as identity, gender, and materiality.

In the late 1980s and 1990s, few scholars discussed moving towards a Post-Processualist paradigm in Icelandic archaeology. Archaeologists and even folklorists were very reluctant to attempt to interpret past behavior based on excavated materials and structures that had no that had no clear function. Hilda Ellis Davidson (1989), a folklorist, briefly mentions the dominant Processualist view on using folklore and the medieval texts in archaeological investigations. She states, "The tendency to avoid the study of past customs has been strengthened by the attitude of archaeologists…this negative attitude towards the interpretation of spontaneous religious practices or belief was of course in its turn a reaction against the tendency to assume that popular customs and traditional tales and odd bits of evidence are difficult to understand must reveal archaeological glimpses of a well-organized pagan past" (Ellis Davidson 1989:131). She goes on to promote using folklore in interpreting archaeology, but only very briefly. Most of the article focuses on possible past belief systems, leaving archaeology mostly out the discussion.

Adolf Friðriksson, in his 1994 book, *Sagas and Popular Antiquarianism in Icelandic Archaeology*, was the first to really attempt to bring Post-Processualism into Icelandic archaeological theory. Friðriksson was the first, at least in English, to actually review and critique Icelandic archaeological theory throughout its entire history up until that point. His main argument is against the dominating Processualist paradigm that had completely eschewed using the medieval literature. Instead, he provides thoughtful insight into the importance of Iceland's medieval texts in relation to Iceland's archaeological history and how it is still relevant to modern archaeology.

Friðriksson argues that the Processualists in Iceland have "failed to put forward any reasoning for their opinion" (Friðriksson 1994:187) on completely separating Icelandic

archaeology and Icelandic medieval literature. He goes on to say that the Processualists have a very limited view of the role the medieval texts play in Icelandic archaeology. Friðriksson criticizes those who suggest ridding Icelandic archaeology of all literary references because the critics have not offered any sufficient reasons for abandoning the tradition. Rather, he suggests that new ways of using the texts in relation to the archaeology should be investigated and that "rather than ignoring the available literary sources, their content and potential must be perpetually pursued" (Friðriksson 1994:192).

Friðriksson gives the example of a 1950s excavation in southern Iceland at a site called Gröf. The archaeologist heading the excavation, Gísli Gestsson, used the medieval literature in a unique combination (at the time) with the archaeology. Instead of using the literature to directly link the farm house to a particular house referenced in the medieval literature, Gestsson simply used the farm house as an example of a type described in the literature that could have been contemporary with when the account was written (Friðriksson 1994:190-191).

Unfortunately, Post-Processual thinking in Iceland has remained on the fringes. A few other scholars have stepped forward in attempting to bring it about, such as Jenny Jochens (1995) through her pioneering work on gender in Viking Age and medieval Iceland in the 1990s. However, for the most part, Processualism has reigned supreme and the medieval literature has remained neglected in favor of the strict use of hard science. The problem of keeping up with outside contemporary archaeological theory may not be due just to Iceland's island isolation. Another, powerful factor is also at play.

The main problem with Icelandic archaeological self-reflection is that reports and articles are mostly written in Icelandic. Many archaeologists and scholars working in Iceland do not speak

or read in Icelandic on a sufficient level. It is a very tough language to learn with its own nuances in archaeological terminology. Outside input is hard to come by.

Most of the self-reflective articles on Icelandic archaeological theory are written only in Icelandic. This makes it very difficult for review by outsider peer-review. If self-reflection is only written in Icelandic, how can anyone know there is a theoretical debate going on in the first place? I am quite certain this is the reason archaeological theory in Iceland has been so slow to catch up. Icelandic scholars have unfortunately insulated, and continue to, insulate themselves to this day by only publishing in Icelandic. Who has the time or desire to sit down and translate theoretical articles into English when it is so much easier to just simply look at all the Processual statistical charts instead?

One of the few self-reflective articles on Icelandic archaeological theory written in English comes from Þora Pétursdóttir. Her 2009 article, "Icelandic Viking Age Graves: Lack in Material-Lack of Interpretation?", expresses her frustration with the current domination of strict Processual thinking in Icelandic archaeology. To demonstrate, she uses current and past interpretations of the Icelandic pre-Christian burial material. These interpretations suggest that the material is "boring" and the graves are simply "poor" because they lack the copious and elaborate grave goods found in contemporary burials in the Scandinavian homeland and no other thought is given to them.

However, she explains, "… the lack, I argue, is not in the material, but in its interpretation…" (Pétursdóttir 2009:38). Pétursdóttir argues there is a lot more going on in Icelandic burials than just the "poor" and meager grave goods. Rather, she says there is a lot to learn about the complexity that goes into a grave itself, not just the items placed in it. There is a lot missing in the material record and that needs to be considered as well.

Fortunately, other archaeologists are beginning to take new directions in archaeological

thought in Iceland. They are reexamining past interpretations and looking to further expand their interpretative possibilities. Ruth Maher (2009) has investigated gender and age studies in pre-Christian burials. Roberts and Hreiðarsdóttir (2013) have looked at evidence of ritual in burials other than artifacts, such as post-holes and secondary burials. Rúnar Leifsson (2011) examined horse burials and how they might have been used to ritually change social status for original settlers in Iceland.

A great example is the case of Hofstaðir. In the 19th century, Daniel Bruun originally identified the northern Icelandic farm site of Hofstaðir as a pagan ritual site based on the "hof" name (Friðriksson 1994:184). At the time when Friðriksson wrote his book in 1994, the current viewpoint was that Hofstaðir was just a regular, albeit large, farm and the place-name connection was ignored. However, Lucas and McGovern (2007) eventually proved Bruun correct. They found that the zooarchaeology indicated massive amounts of ritual cattle decapitation had occurred there.

Despite these advancements, however, texts are still mostly taboo, unless they are censuses. A particularly interesting scholar in Iceland is a folklorist named Terry Gunnell (2017). He is a professor of Old Nordic Religion and Belief at the University of Iceland and often sites archaeology in his work. His integration of archaeology with literature in interpreting pagan belief systems is an excellent example of the direction archaeology should be heading. Unfortunately, the dialogue between the disciplines is so far only one way…mostly.

Occasionally archaeologists, such as McGovern (et al. 2009), will briefly mention the medieval literature in their discussions, but more than a sentence or two is very rare. On the other end of the spectrum, there are two archaeologists working in Iceland who in fact *do* use the literature in their interpretations. However, the way they employ it is less than desirable. Jesse Byock (1993) and Bjarni Einarsson (2008) (once an advocate for not using literature at all) use the

literature in a way that harkens back to Antiquarian days. These will be discussed further in **Chapter 4** under "The Problems of Literary Sources in Archaeological Interpretation."

With the current international growing concern about climate change, the main direction that modern Icelandic archaeology has proceeded in is that of multidisciplinary and highly collaborative research projects based on environmental and climate change. Some of these new projects bring Saga Studies back into archaeological research, at least in some kind of collaborative effort.

The Inscribing Environmental Memory in the Icelandic Sagas (IEM) project, in particular, has the most to do with the integration of the Icelandic medieval literature in multidisciplinary studies. The IEM project, "…aims to link literary and historical studies of the Sagas to environmental records…" and "…to bring together scholars working on Icelandic/Scandinavian/North Atlantic history, literature, archaeology, environment, and climatic change." IEM's primary goal is to examine all types of evidence regarding the environment and environmental change from AD 850-1500. The data are then related to the reciprocal relationship between medieval Icelanders, their environment, and their literature (http://www.nabohome.org/iem/). Astrid Ogilvie´s work (1982 et seq.) has led to a similar project called *Reflections of Change: The Natural World in Literary and Historical Sources from Iceland ca. AD 800 to 1800 (ICECHANGE)* (http://www.svs.is/en/projects/icechange), which she currently heads.

Academics such as Patricia Boulhosa (2010), an Anglo-Saxon, Norse and Celtic Studies scholar, and Vicki Szabo (2012), an historian, are currently using a similar approach as IEM by using literature to look at fishing and whaling in the North Atlantic. Szabo (2012), for example, compares comprehensive catalogues of whalebones from excavations in Iceland and Greenland to

written sources about how whales were used in the past. For example, why are whalebones so underrepresented in the archaeofauna? The answer is that 75 percent of a whale's body can be taken away without leaving a single trace behind. The medieval literature explains laws concerning ownership and division of whale meat, and therefore the whale's underrepresentation is explained as being taken away by multiple various owners. The sagas also correctly follow whale migrations.

On the cautionary side, however, Szabo notes the hang-ups are in the details and also in law-adherence. For example, the whaling laws are only concerned about the size of whales, not species. Also, the sagas tell a different story than the law books, as the sagas depict people openly defying the laws.

1.3.4. Literature Alongside Archaeology

The debate about the use of medieval Icelandic literature in interpreting pagan Norse religion has been on-going since the 18th cen. (Andrén 2007:105). Arguments for a Christian origin of the Norse mythology contained in the medieval Icelandic literature have been brought up several times over the last few hundred years. To give just a few examples, Sophus Bugge (1867) claimed that the *Poetic Edda* was purely a Christian and Latin invention and that the mythology within it could not be looked at as pagan belief. Rudoph Simek (2006) agreed and vehemently opposed the medieval literature in pagan religious studies.

Directly opposing this view, L. Winefred Faraday (1906:389) said that Snorri's prose version, based on the *Poetic Edda*, is not biased by Christianity at all. Faraday also argued that the Christian bias in the sagas is easily recognizable when it pops up, which is a rare occasion, and therefore is not a problem. Svend Grundtvig (1867) concurred and even argued that the *Poetic Edda* originated in the Migration Age through the Viking Age (ca. A.D. 400-800). Birgir Nerman (1931) suggested that when passages about pagan belief and ritual in the medieval literature are

vague or unclear, then archaeology should be used to determine how to interpret it.

However, most scholars have agreed on some areas within the middle ground. Turville-Petre (1953; 1964) and Thomas DuBois (1999) have stated that, although there was Christian influence on particular sources, pagan elements within the literature can still be found. Margret Clunies-Ross wrote a two-volume work, entitled *Prolonged Echoes: Old Norse Myths in Medieval Northern Society* (1994; 1998), dedicated to finding an approach to using the medieval literature in an appropriate way. Clunies-Ross concluded that the medieval literature can be useful in studying Norse pagan religion, but with heavy source criticism. She also concluded that most of the information gathered about pagan religion from these texts should be more understood as how the medieval Icelanders interpreted the religion of their pagan ancestors, rather than a reflection of what the pagans themselves truly believed. Neil Price (2002 et seq.), of course, has also been an advocate for the use of the medieval Icelandic literature as a resource in interpreting pagan religion in ancient Scandinavia. He argued that seriation and chronology do not tell us much of anything and that we should aim to find some kind of meaning in the archaeology (Price 2019:31).

There are many inspiring examples of the use of archaeology combined with the Icelandic literature to extract meaning from Norse pagan religion. To name just a few: Hilda R. Ellis (later Ellis Davidson)´s *The Road to Hel* (1968) examined Norse pagan concepts of death and the dead; Anders Andrén´s (2001) *Förhållandet mellan texter, bilder och ting* (*The Relationship Between Texts, Images and Things*) suggested that Norse mythology was recited as part of boat burial mortuary rites; Michele Hayeur-Smith´s *Draupnir´s Sweat and Mardöll´s Tears* (2004) examined gender and identity via jewelry and texts; Ulla Loumand´s *The Horse and Its Role in Icelandic Burial Practices, Mythology, and Society* (2006), which is self-explanatory, and Leszek Gardela´s *Into Viking Minds: Reinterpreting the Staffs of Sorcery and Unravelling Seiðr* (2008) that focused

on magic found in archaeology and the literature.

For a more in-depth discussion, see **Chapter 4**, which is dedicated to source criticism.

1.3.5. Case Studies

1.3.5.1. Cats and Humans

From behavioral studies (Case 2003) to genetics (Menotti-Raymond et al. 2008), the domestic cat has been the subject of interest for many different fields of study for quite some time. Most data have come from studies on the cat's domestication process as well as on its symbolism, particularly in Ancient Egypt. The domestication process of the cat was not as straightforward as other domesticates (Montague et al 2014). Rather than being artificially selected by humans for a particular job or product, the cat instead likely domesticated itself, or at least was preadapted to be domesticated (Cameron-Beaumont et al. 2002; Berteselli et al. 2014). Wildcats saw humans as providing an opportunity for food (i.e. mice around grain storage) and protection and started a commensal relationship with humans (Hu et al. 2014). Humans then took advantage of the cat's proliferation at rodent control and its eventual companionship (Clutton-Brock 1993:33; Clutton-Brock 1999).

Through the domestication process, humans likely developed their reverence for the cat. Although the first domesticated cat in archaeology comes from Cyprus (Vigne et al.2004; Vigne 2015), the first region to clearly venerate the domestic cat was of course Egypt in antiquity (Van Neer et al 2014). Reverence for the cat likely grew not only out of the cat's pest control which protected human food as well as humans themselves (from snakes and scorpions), but also out of the cat's acute senses which likened it to the supernatural world. Humans also probably noticed the cat's cleanliness as well as its proclivity for breeding. The fecundity of the cat then may have

led to its link to fertility in religious symbolism (Malek 1997; Engels 1999). From Ancient Egypt, the domestic cat spread to Greece and then to Rome. The Romans then brought the cat to the rest of Europe (Ottoni et al 2017). The reverence the Egyptians felt for the cat feasibly travelled with it across the world.

The domestic cat's subsequent ill treatment in the Middle Ages of Europe has also been a popular area of research interest. The consensus is that the cat received such poor treatment during the Middle Ages of Europe because of the introduction of Christianity. Most scholars agree that the cat's reverence in the pagan world, especially its relationship with female fertility deities, doomed it when Christianity arose. Hence, when the female fertility deities of pagan religions were demonized, so too were their feline companions (Darnton 1984:92; Oldfield Howey 1989:96; Engels 1999:142). As medieval Christian Europe began to understand the cat in relation to the devil and witchcraft (old world pagan elements turned evil), their appearance as ingredients in magic spells came about (Mitchell 1988).

The domestic cat in Scandinavia has been a subject of research for over 100 years. In 1871, Jón Hjaltalín wrote about the pagan worship of animals in ancient Scandinavia by examining how animals appeared in the medieval Icelandic literature. The 1960s through the 1980s saw the study of the spread of the domestic cat to Scandinavia (Bernström 1963; Lepiksaar 1986; Colling 1986). The discussion about cats used for their fur in the Viking and Middle Ages also took place in the late 1980s and early 1990s (Colling 1986; McCormick 1988; Andersson 1993:30 after Bernström 1963; Hatting 1990). In 1972, Elisabeth Iregren wrote about Scandinavian Iron Age cremations and animal inclusions, which led to her later work (1997) about animals as Iron Age grave goods, including the cat.

Maria Andersson, inspired by Iregren (1972), wrote her indispensable 1993 thesis: *Kattalog: En Studie Av Den Svenske Tamkattens Tidiga Historia* (*Cat-alog: A Study Of The Early History Of The Swedish Domestic Cat*). This work was integral as it created a starting point for this dissertation. Andersson compiled a catalog of cats in pagan Swedish graves and gave as well as attempted to extract meaning from it, although quite limited. Later, Nielsen (1996), Nilsson (2003), and Torun Zachrisson (2004) wrote about animals found in Iron Age Scandinavian pagan cult contexts, including the cat. Again, not much in the way of meaning was extracted for the cat, but it was briefly addressed. In all of these works, the most basic connection to Norse religion and the cat in archaeology was the Norse fertility goddess Freyja, whose special animal was the cat.

Recently, more in-depth analyses at the domestic cat in Viking Age Scandinavia have been undertaken, such as Bitz-Thorsen and Gotfredsen (2018)'s work which revealed an increase in skeletal size of the modern domestic cat in Denmark from that of the cat of the Viking Age. More pertinent to this study, however, have been my MA, *Freyja's Cats: Perspectives on Recent Viking Age Finds in Þegjandadalur North Iceland* (Prehal 2011), Selene Mazza's MPhil, *Cats in Context: Archaeological evidence of human-cat relationships in Scandinavia and Iceland 200-1100* CE (2017) and Matthias Toplak's article, *The Warrior and the Cat A Re-Evaluation of the Roles of Domestic Cats in Viking Age Scandinavia* (2019).

My MA (Prehal 2011) was the first to attempt a major extraction of meaning from cat remains in Iron Age Scandinavian and Icelandic archaeology. For this work, I utilized the medieval literature, contemporary outside accounts, archaeology, and historical analogy. I concluded that the cat had a religious significance to the Norse pagans of Iron Age Scandinavia and Iceland, particularly related to the fertility goddess, Freyja. Mazza's MPhil countered my MA with similar methods and concluded that Viking Age Scandinavians had a complex and multidimensional

spectrum of relationships with the domestic cat, as opposed to just a one-dimensional religious relationship. Finally, Toplak's article (2019) contends with my MA again, arguing for a more practical use for cats in the Viking Age, over religious. In **Chapter 4** of this dissertation, a response to Toplak's article is given.

1.3.5.2.Quartz and Humans

Quartz and humans have had a very long relationship. As it is a very common mineral found all over the world, it has become important to many different cultures spanning time and location. Quartz is not only hard and rough, which can be used for creating tools and metals, it is also quite beautiful. Quartz is triboluminescent, which means it glows when broken or when two pieces are rubbed together. It is no wonder that the functionality and splendor of quartz has turned humans towards seeing it as supernatural (Lewis-Williams and Dowson 1990; Taçon and Ouzman 2004; Goldhahn 2007).

From the Stone Age, across the world, quartz has been used for making stone tools; from simple scrapers and knives to elaborate ceremonial spears (Taçon 1991; Lindgren 2004; Cooney 2016; Driscoll 2016). Quartz was also used to forge bronze (Eriksson 2005). In fact, without quartz, there would have been no bronze revolution, and hence no Bronze Age (Goldhahn 2007: 124).

In Scandinavia, archaeologists have come across quartz in several different contexts across several different time periods. Not only has quartz been found in great quantities in relation to Stone and Bronze Age tool production and Bronze Age bronze smelting (Jaanusson 1978; Andersen and Madsen 1984), it has also been found as votive bog deposits (Carlie 1999) and in great association with Bronze Age rock carvings. Many of these rock carvings were on large stones with prominent quartz veins (Goldhahn 2007). In 1977, Petterson and Kristiansson wrote about

the snake-like appearance of these rock art quartz veins. However, all that was said about this phenomenon was that the snake-like quartz veins appealed to the "primitive mind" and hence were attractive to Bronze Age people.

30 years later, Joakim Goldhahn (2007:163) researched this topic much more extensively. Goldhahn's conclusion was that the quartz veins on the rock carvings were "…symbolic openings to worlds hidden from us." Melanie Wrigglesworth's (2011:213) dissertation concurred and noted that as there were plenty of large, more easily carved stones in these areas, there must have been something significant about the quartz: "The rock could have been perceived as a veil or membrane to another world, perhaps where supernatural beings were thought to exist."

Also discussed over the past century has been the early Iron Age "holy white stones" of Scandinavia, which are large phallic-shaped white quartz stones (Petersen 1905; Arne 1919; Larsen 1994). Some of these stones have been found on top of grave mounds. They have been interpreted as fertility cult objects associated with the Norse god Njörðr (Petersen 1905), fertility magic facilitators (Svederup 1935), and evidence of a male fertility cult (Skjølsvold 1963).

Large quantities of crushed quartz have also been found in Bronze Age and Iron Age burials in Scandinavia (as well as other parts of Europe). Many archaeologists dismissed these quartz finds as merely contamination from a nearby older nearby settlement (Johansson 2003; Lindman 2003). Oftentimes, though, these quartz deposits have been intentionally crushed and placed in the graves. Crushing quartz in this way has no functional purpose, as it does not make tools, nor does it assist in smelting.

Unfortunately, all that is usually said about this phenomenon is that it is ritual in nature. Sometimes quartz as grave goods is counted as part of shamanic equipment in some early Bronze Age graves. However, quartz as a symbolic and religious object has been overlooked and not

documented satisfactorily in Scandinavian archaeology up until the beginning of the 21st cen. (Carlie 1999; Goldhahn 2007), or barely at all in Iceland (Jónsson 2014).

A large layer of freshly crushed quartz on a burial would have likely been quite a spectacle. It would have dazzled and sparkled in the sunlight. Quartz has also been found in graves as small portables, like talismans or amulets. Anne Carlie (1999) and Christina Lindgren (2008) both suggested that white quartz in Iron Age Scandinavian graves, both as crushed layers and as portables, were part of a ritual to recreate cosmological myth.

Quartz in ancient Scandinavian graves had a long tradition spanning from the Bronze Age well into the Iron Age. It also varied by location, with some areas having higher concentrations than others. Individual graves also varied, as one grave could have just one piece of quartz at the same time as another grave with 100 kilos worth in the same grave field (Goldhahn 2007:175-176). This is very similar to what is seen in the Icelandic material.

Human fascination with quartz and other white stones continued into the Middle Ages and even into our modern times in New Age religions. Medieval Scandinavians and Icelanders (along with their contemporaries in Europe) saw precious stones, including quartz, as having magical properties. These magical properties could be protective or medicinal (Gilchrist 2008; Thompson 2005; Mitchell 2011). **Chapter 6** of this dissertation continues this discussion on quartz in Scandinavia and Iceland.

1.4. Chapter Overview

I have used the data obtained from my two case studies to demonstrate the value in reintegrating Icelandic literary works in archaeological interpretation. However, in order to

understand my argument, much more needs to be delved into than just the case studies. To do so, I have chosen to order this dissertation in the following way:

Chapter 2 provides the geological and cultural backgrounds for the Scandinavian regions, as well as Iceland. Subjects such as raids, trading, colonizing, and religious views are covered. Also included in this chapter are the origins and contexts of the Icelandic literature.

Chapter 3 delves into the theory and methodology applied to the herein datasets. Brief explanations of the different fields used in this multidisciplinary approach, such as aDNA, are provided.

Chapter 4 discusses using the literary sources in interpreting Icelandic archaeology. This includes the pros, cons, and compromises.

Chapter 5 is the first of the case studies: cats. This chapter provides a very brief history of the domestication of cats and their arrival in Scandinavia. It also breaks down the data of cats mentioned in Icelandic literature and cats in graves (and other ritual contexts) in Scandinavia and Iceland. Lastly, the aDNA results from Icelandic cats are presented and discussed.

Chapter 6 gives a very brief background on stone types and their locations in Scandinavia and Iceland. This chapter also breaks down the data of special stones mentioned in Icelandic literature and white or clear stones, particularly quartz, in graves in Scandinavia and Iceland. Lastly, it makes

a connection to similar and nearby cultures that the Norse and their ancestors had contact with, the Picts and the Irish, to look for similar themes.

Chapter 7 discusses of how the interpretations drawn in *Chapters 5 and 6* relate to the argument made in this dissertation. The conclusion and future research interests are included.

CHAPTER TWO:

NORSE AND ICELANDIC HISTORY

Although the Vikings are famous for their raids on Europe, most of the Norse who traveled were actually tradesmen and settlers who founded many large trading cities, such as York, England and Dublin, Ireland. Their presence in Western Europe is still seen today in the modern languages and customs across the British Isles. The Norse had a vast trade network, expanding as far as Iraq, Byzantium, and even an attempt at North America. In the East, they are also responsible for setting up the political foundations of modern-day Russia. They settled previously uninhabited islands in the North Atlantic, as well; the most famous being Iceland.

2.1. The Iron and Viking Ages

The Iron Age in Europe, including Scandinavia, spanned the time of about 500 BC to AD 1000. The cultural revolution of iron production is what gives this age its name. During this time, settlements grew quite large and increased in social stratification complexity. Populations flourished and technologies were advanced or created (Price 2000a:36-37).

The Iron Age saw lots of movement of people all over Europe. At this point, we know that Iron Age people in Scandinavia were Proto-Germanic who evolved into the Proto-Norse and then eventually to the Norse. The Norse of the Viking Age, therefore, had common cultural roots with those of Western Europeans, as well as sharing similar languages.

The era just before the Viking Age in Scandinavia, the Vendel/Merovingian Era (AD 6th – 8th C.), saw chiefly power consolidation with many small kings in a high-ranking warrior aristocracy. Growing regional kingdoms created regional identities that would last throughout the

Viking Age. By AD 700, there were seven Norwegian kingdoms, two in Sweden, and Denmark was already completely unified.

The Vendel/Merovingian Era produced a beautiful material culture. Elaborate metal artifacts were used for decorating the body and everyday objects. Artisans made individual pieces with intricate filigree and precious stones (Lundström 1983:106). All over Scandinavia, people wore similar clothes and lived in similar houses. They also had, more or less, generalized mortuary practices: cremation in Norway and Sweden and inhumation in Denmark (Brøndsted 1936; Gräslund 1981; Price 2000a:39). Large royal burial mounds were erected at the end of the Vendel Era (Jørgensen 2000:75).

During the transition into the Viking Age, major trading sites turned into towns. At the beginning of the Viking Age, it is estimated there were around 300,000 people in all of Scandinavia, which is about the population of modern Iceland. The Viking Age marks the transition from "chiefdom" to "state" in Scandinavia and traditionally spans the period from AD 787/AD 793 to AD 1066. These dates are arbitrary as they represent the first written accounts describing raiders from the North and the last large-scale attempted Scandinavian invasion on England (Jørgensen 2000:72; Price 2000a:40-41).

The first date of the Viking Age, AD 787, comes from the *Anglo-Saxon Chronicle*, which states that three Danish ships came to the Isle of Portland, off the south coast of England. The local sheriff, thinking they were tradesmen, was killed. The most frequently used date for the beginning of the Viking Age, AD 793, however, comes from another account in the *Anglo-Saxon Chronicle*. This account records the raid on the monastery on the Isle of Lindisfarne, off the coast of northeastern England. It is most likely, however, that these so described "Norsemen" began small scale, reconnaissance raids several years earlier.

AD 1066 arbitrarily marks the end of the Viking Age. In this year, the last major "Viking expedition" to conquer England took place. Harald Harðráði, king of Norway, sought to invade England, but was killed at the battle of Stamford Bridge. This left Harald Godwineson, an English king of Danish descent, as ruler of England until his own defeat by William of Normandy at the Battle of Hastings. Although Harald Harðráði´s was the last Scandinavian attempt to invade England and severely diminished Norse territory in the West, the Viking raids trickled out slowly over the next few years and the culture eventually synthesized with Christian Europe (Roesdahl 1998:258; 296).

As in the previous Vendel/Merovingian period, the geographical area of Viking Age Scandinavia was a defined cultural unit. It had many natural resources, which made it nearly self-sufficient. It was also removed "…from the political and cultural centers in the rest of Europe…. The languages were very similar…and religion, burial customs and architecture had much in common" (Roesdahl 1998:28).

Viking Age society in Scandinavia had three basic social classes: the jarl, the karl, and the þræll (the earl/nobleman, the freeman/farmer, and the slave, respectively). These were governed by small, local kings. Status was obtained and maintained by a system of reciprocal gift giving, where silver and gold were especially prized. Kings and aristocrats made their wealth by taking tribute from farmers and/or renting out their land to tenant farmers (Roesdahl 1998:30-31).

There was a lot of competition between local kings, as well as groups of kings, fighting for control of larger areas. Large burial mounds with extremely rich inclusions were erected during this time, suggesting the need for marking territory and legitimizing power. Large halls dominated Viking Age estates. Here, kings and aristocrats would entertain guests to show off and gain more

subjects. These large halls were richly adorned and had hoards of precious metals, coins, and imported goods.

Large trading towns were also established, such as Björkö in Sweden (Birka in English), Kaupang in Norway, and Hedeby in Denmark. Here, the craftsman population (part of the freemen) was the highest. They were also taxed via tributes to local kings and aristocrats (Jørgensen 2000:75). These towns were under royal monopolies and eventually led the way to monetization and commercialization (Hedeager 2000:85). Craftsmanship may be said to have become industrialized during the Viking Age. Instead of the standard being unique handmade pieces, molds were used to meet the demand of these larger trading sites. The Norse did not make ceramics, but rather used soapstone to make vessels. All the ceramics present in Viking Age Scandinavia were imported via these trading towns (Kaland and Martens 2000:52-53).

The rural settlements consisted of small villages comprised of three to ten farms or loosely grouped single farm households. This allotted shared farmland and grazing areas, which distributed the workload. Barley, wheat, oats, and rye were the grains grown. The vegetables consisted of cabbage, onions, peas, and beans. Hops were also grown for brewing beer. Cattle and sheep were the most consumed meat animals and were also kept for dairy purposes. Wool production was also very important. Wild resources were also used to augment diets.

The longhouse was the standard Viking Age farm dwelling. It was much smaller than the halls of the kings and aristocracy. The longhouse consisted of a long hall with a central hearth, with beds and benches lining the walls. There were separate rooms at each end for domestic and ritual activities. The farm complex also had outbuildings used for storage along with auxiliary buildings for craft production (Kaland and Martens 2000:43-45). The farm household was comprised "of the couple owning the farm and their children, grandparents, unmarried brothers

and sisters of the owners, foster sons and daughters, and servants. The more prosperous farms probably had slaves in the household" (Jørgensen 2000:82).

The Viking Age also saw the establishment of general laws. Law assemblies, called Things, were held both locally as well as at larger regional scales. Here, all free men were able to speak and vote on various matters. The Law Speaker was voted in and was required to recite the local and regional laws, settle disputes, and punish criminals (Jørgensen 2000:75).

The Norse were not the only ethnic group occupying Scandinavia during the late Iron Age. A circumpolar nomadic culture, called the Saami, inhabited the area, as well. The archaeology suggests that the two groups coexisted peacefully. The modern-day descendants of the Saami still dwell in the northern parts of the Peninsula. The Saami are of Finno-Ugrian origin which differs from the Germanics who are of Indo-European origin. Not much is known about when and where the Saami came to Scandinavia from, but they were not always segregated to the far north as they are now. We do know, however, that they are remotely linked to the Finns, Estonians, and Hungarians (Price 2000a:37-39).

The Saami had many interactions with the Norse and the two groups influenced each other. The archaeological record suggests that trade was not uncommon between the two and religious ideas were shared as well. The Saami beliefs of animism and shamanism were ever present in Norse ritual practices as well as the mythology (Price 2000b:70-71). Unfortunately, including the Saami is outside of the scope of this dissertation.

2.2. Settlement of Iceland

Archaeological evidence suggests Iceland was settled by the Norse (mostly from Norway) around AD 871 (Roesdahl 1998:262). Genetic research done in Iceland has revealed that although

70-75% of the male settlers were Norse (20-25% being Gaelic), 62% of the female settlers came from the British Isles (with 37.5% being Norse) (Helgason et al. 2000 and 2001). The genetic data, therefore, suggests that male Norse settlers likely obtained Gaelic females and brought them to the frontiers of Iceland. The implications of possible Gaelic influence on the Icelandic settlement culture will be discussed in **Chapter 6.**

Iceland was uninhabited when it was colonized by the Viking Age Norse. Some scholars, however, believe that Irish monks may have found it earlier, but did not stay long. The Irish monk Dicuil (AD 825) described an island that sounds like Iceland in his *De mensura orbis terrae* ("Concerning the Measurement of the World") (Buckland 2000:146). However, no real archaeological evidence has been found to confirm this. Some placenames in Iceland contain the word "papar", "father" which is suggestive of monks, though this is not sufficient evidence (Roesdahl 1998: 262; Vésteinsson 2000:164-165).

It is likely that people came to Iceland before AD 871 to do some reconnaissance ahead of full settlement. There is one pollen sample from a boggy area near Reykjavik which hints at a pre-871 barley cultivation. We do not know if the Norse found Iceland accidentally or if they purposefully set out on exploration missions. It is possible they found Iceland by following migrating walrus populations, which they hunted. They could have also heard about it from the Irish, if they were indeed the first in Iceland.

Due to heavy volcanic activity in Iceland, archaeologists and tephrochronologists (scientists who study volcanic ash deposits) are often able to give very accurate dates to archaeological sites. Tephra is the term used for the super fine shards of glass that make up part of volcanic ash. Each volcanic eruption has its own tephra signature. Different amounts of tephra, varying from large amounts to none, fluctuate across different parts of the country. The term

tephrochronology was coined by the Icelandic geologist Sigurður Thórarinsson (1944, 1956) to describe the technique he pioneered.

The Landnám Tephra sequence is the most important for archaeologists, as this is the tephra that marks the first human activity in Iceland. The Veiðivötn volcano, located in the southern part of Iceland, erupted in AD 871±2 and again around AD 920. Between these two eruptions, or directly on top of AD 920, is where we get the first known human activity, and it is considerable (Vésteinsson 2000:164). When scholars discuss the settlement of Iceland, they usually use the Icelandic term *Landnám*, which literally translates to "land-taking". This directly correlates to the human activity found in the Landnám Tephra sequence.

As mentioned in **Chapter 2**, Iceland used to be covered in shrubby birch tree forests. When the Norse arrived, trees and wooded areas were cleared by burning to make fields for farming, although some areas were left to be carefully maintained. Before the Norse arrived in Iceland, about 25-40% of the island was covered in birch trees. Within 50 years, a significant number of trees were cleared. As a result, exacerbated by erosion, only about 1% of tree coverage is left today (Smith 1995:323; Eysteinsson 2017:4).

The first buildings early settlers built were pit-houses. These were simple and small houses that were dug into the ground and covered in a turf roof. They lived in these pit-houses while they built their much larger longhouses. These longhouses were built in a similar style as in Scandinavia, although turf and stone were used more frequently. The long-held theory on how Iceland was initially settled states that farms were situated large distances from each other. However, archaeological evidence from the past several years indicates that at least the Reykjavik area was colonized with multiple farms within close vicinity to each other (Vésteinsson 2000:168).

The longhouse sites of Aðalstræti, Lækjargata, and Tjarnargata in Reykjavik are within very close range of each other and suggest that original settlers initially preferred to live in hamlet-like settlements similar to their Scandinavian homelands. The Aðalstræti site is especially interesting because it contains the oldest known man-made structure in Iceland: a turf boundary wall dated to AD 871±2 (via the first tephra layer in the Landnám sequence). However, for unknown reasons, there was a quick reorganization and a switch to isolated farms was made. Within a few decades, most of the best land in Iceland was claimed (Vésteinsson 2000:167).

It is believed that the settlers came with a "Settlement Package" or "Landnám Package," which included domesticated cows (mostly for dairy), horses, dogs, sheep/goats, pigs and chickens. The pigs and goats were quickly abandoned in favor of cows, as the pigs and goats were destructive and thrived better in wooded areas. The climate may have also been more suitable for cattle. To compensate for harsh conditions, settlers also took to harvesting wild resources, such as fish, whales, seals, and birds and their eggs (Vésteinsson 2000:170-171; Brewington 2015).

The material culture in Iceland unfortunately seems to be lacking in comparison to contemporary sites in Scandinavia. This could be due to several factors, such as merchants not willing to travel to Iceland often and shortages of raw materials. Imported goods comprised of stoneware, glass beads, copper alloys, lead, jet and amber. Common locally made finds are made of bone, stone, and iron, including whetstones, spindle whorls, bone combs, bone clothing pins, and iron artifacts. Bog iron is available in Iceland, and most farms had blacksmithing areas (Vésteinsson 2000:169).

As in Scandinavia, the pioneers of Iceland determined their status by keeping large plots of land and renting areas for others to work. They worked hard clearing the land and did not want to see newcomers benefiting from them. By the 12th century, "society was dominated by a small

group of chieftains, each ruling over a loosely defined group of householders…[with the] real political power [lying] in the hands of a small aristocracy" (Vésteinsson 2000:174).

The *Alþing* (general assembly), established in *Þingvellir* (Parliament fields) in AD 930, marked the beginning of the Commonwealth period (AD 930-1262). This was something that Scandinavians had in the homelands, but the scale in Iceland was much larger. The *Alþing* would have facilitated communications between chieftains, coordinated sheep-roundups, and negotiated control over boundaries. Here, chieftains also established laws and customs for the entirety of the island (Thorláksson 2000:175;178).

2.3. Medieval Iceland and Its Written Sources

2.3.1. Introduction

In the year AD 1000, it is said that Iceland officially converted to Christianity (Schledermann 2000:189). This not only changed the social structure of Iceland, but also brought literacy (Sigurðsson 2000:186). The Viking Age longhouse was abandoned, and the medieval house was built only a few meters away. This is unlike the pattern in mainland Scandinavia where houses were rebuilt on top of each other. This is likely due to more land availability in Iceland. Not much is known about medieval houses in Iceland, as excavation focuses have mainly been on Viking Age longhouses.

Medieval Iceland had a semi-feudal system. There were about 700 wealthy landowners across the island. They owned quite large areas and subsequently could not farm them on their own. Therefore, these landowners oversaw 25,000 households as their tenants, with about 1000 independent farmers who would rent the land and livestock (Vésteinsson 2000:174).

13th century Iceland is known as the "Age of the Sturlungs." During this time, there was a large-scale Civil War, spanning about 40-50 years. There were five "great" families fighting for control of all of Iceland. They were all in pursuit of kingship. This period is named for the Sturlunga family, the most powerful of the five (Sigurðsson 1999:71). In the end, everyone lost with Norway taking control in AD 1264.

From AD 1100 - 1700, Iceland had a large significant economy focused on cod fish. They eventually improved their cod-fishing industry with standardization, a common grading system, and monetization. This economy stimulated mass trade for Iceland, as they created and then monopolized the dried fish market in Europe. Dried fish is easy to transport and has a very long shelf-life, making it a staple for winter stocks. This major revolution in fishing fueled early medieval expansion and a rise in populations. As a result, there was a major increase in merchants and markets (Hartman et al. 2017).

The most spectacular product of medieval Iceland, arguably, is its written record. Pre-Middle Ages, the Norse in Iceland and Scandinavia were not fully literate. They had an alphabet consisting of "runes", which are letters comprised of stroke marks. These runes were never committed to books, at least none that has ever been found. Instead, they were used to carve into stone, wood, and bone and mostly used to mark ownership or commemorate a deceased loved one (Meulengracht Sørensen 1997:204). The conversion to Christianity not only changed the social structure of Iceland and Scandinavia, it also brought full literacy.

The medieval Icelandic literary record consists of sagas, Eddaic poems, and law codes. The sagas of Icelanders are prose stories mostly about the lives of the first settlers of Iceland. These stories are not contemporary but were written about 200 years after the Viking Age, mostly during the 13th century. The poems, however, probably did develop in the Viking Age as an art form.

Before literacy, cultures use devices such as poetry, to preserve cultural history. With the introduction of literacy, these previously memorized poems are then committed to paper (in this case, vellum). It is from these sagas and poems that we get our modern interpretation of Norse life, including religion and mythology (Larrington 2008:x). This written tradition continued into modern times. The 16th and 17th centuries produced sagas, folklore, and grimoires, which are also particularly interesting in their own rights.

2.3.2. The Poetic Edda

The Poetic Edda is the collection of poems, written down in the span of around AD 1000 – 1300 in various manuscripts. These poems are also known as *The Elder Edda*. In Icelandic, the collection of poems is called *Eddukvæði.* These poems are the earliest known examples of Icelandic writing and are considered to be the most reliable. However, as they are a form of art, they hardly consist of any "factual" accounts. Instead, these poems are fantastical tales of mythical creatures, gods, and heroes. The poems are divided into Mythological History Poems and Heroic Poems (Larrington 2008:x; Adams Bellows 1936:xv).

There are many fragmentary manuscripts containing various poems by anonymous authors. The earliest and most complete collection of poems was thought to have been copied down by Sæmundar the Wise, and thus is sometimes called *The Sæmundar Edda.* The bishop of Skáholt, Brynjólfur Sveinsson, found the manuscript in 1643. He then sent it to King Frederick III of Denmark in 1662.

This collection of 29 poems (complete and fragmentary) is contained in a manuscript called the *Codex Regius* (GKS 2365 4to) (AD 1260 - 1280). Not much is known about the Codex's origin and history, although folklorist Terry Gunnell (2005:85) says that "Its central importance is that it

contains a (slightly rusty) key to the pagan religious world not only of the settlers of Iceland, but also of the people of Scandinavia as a whole."

The *Codex Regius* is currently housed in the *Árni Magnússon Institute* in Reykjavik (under *Eddukvæði - Sæmundar-Edda*), as it was returned to Iceland in 1971. It is the best known of the collections and is the basis for most translations. It is also considered to be the "…best evidence for the religious beliefs and the heroic ethics of the pagan North before its conversion to Christianity…" (Larrington 2008:x).

Poems not included in the *Codex Regius* are *Baldrs draumar* ("Baldr's Dreams"), *Gróttasöngr* ("The Song of Grótti"), *Rígsþula* ("The List of Ríg"), *Hyndluljóð* ("The Poem of Hyndla"), and *Svipdagsmál* ("The Lay of Svipdag"), which is divided into two poems: *Grógaldr* ("The Spell of Gróa") and *Fjölsvinnsmál* ("The Lay of Fjölsvid"). *Svipdagsmál*, however, is a later work (17th C.) and is usually excluded from translations after 1950. All these poems are included in this dissertation's method.

The meter and style of the *Poetic Edda* is fairly simple. This differs from the more complicated skaldic poetry found in Snorri's *Prose Edda*. The poems in the *Poetic Edda* use four different types of meters: *ljóðaháttr, fornyrðislag*, *galdralag* and *málaháttr*.

Carolyne Larrington (2008: xxvii-xxviii) explains:

> Ljóðaháttr *is …used for wisdom and dialogue poetry, has stanzas consisting of two halves, each composed of a long line with four stresses and two alliterative syllables, and a shorter line, with two stresses and two alliterative syllables…*Fornyrðislag *is the most frequent narrative metre, especially in the heroic poetry. It consists of four-line stanzas; a line consists of two half-lines, each with two stresses and one alliterative syllable…*Galdralag *(literally 'spell-measure') is different again, a repetitive metre…while* málaháttr *is an augmented* fornyrðislag*…It has five stresses and two alliterating syllables in the first half-line and usually five stresses with one alliterating syllable in the second half-line.*

The most famous poems are *Völuspá* ("Prophecy of the Seeress") and *Hávamál* ("Sayings of the High One"). *Völuspá* is the first poem in the collection. It is set up as a conversation between a völva (a seeress) and the god Oðinn. In their discussions, the Norse cosmology is revealed. The creation of the universe, the gods, the earth, and humanity are explained. It also covers the famous "Ragnarök", or "Twilight of the Gods". This is the foredooming of the destruction of the gods and the end of the world. *Völuspá* is mostly composed in the *fornyrðislag* meter (Larrington 2008:3).

Hávamál is the second poem in the collection. It is thought to be the sayings of the god, Oðinn. In it is advice for social behavior, common sense, polite conduct, and how to obtain wisdom. It also explains how Oðinn came by the mystical knowledge of runes and magic spells. It is composed in the *ljóðaháttr* meter (Larrington 2008:14).

There have been many translations of the *Poetic Edda* over the centuries. It has been heavily debated on how best to translate it. The first translation was A.S. Cottle's (1797) *Icelandic Poetry, or The Edda of Saemund.* The most accepted modern translation is Carolyne Larrington's (1996) *The Poetic Edda.* Larrington's 2008 reprint is the edition this dissertation uses.

2.3.3. Snorri Sturluson and The Prose Edda

Snorri Sturluson was a wealthy and powerful chieftain born in AD 1179. He is claimed to be the descendant of Egil Skallagrímsson, the hero of *Egil's Saga*. Over his life, he could have been considered a Renaissance man, as he was not only a powerful chieftain, but also "a politician, historian, saga-writer, and poet" (Ellis Davidson 1990:24).

Snorri was raised at Oddi, a farm in the south of Iceland, which was a cultural and learning center. There he gained an excellent education. In AD 1202, he married an heiress, moved to Reykholt, and hence gained great wealth and likely chieftain status (Karlsson 2000:67; 75). He

eventually became an influential figure in Icelandic politics. At the age of 36, he was elected Law Speaker at the *Alþing* (AD 1215 - 1218) (Ólason 1951:306).

After his term ended, he headed to Norway to meet with its rulers. He traveled extensively throughout Norway and Sweden for several years, immersing himself in their politics. He established great ties with Norway, and even promised to promote Norwegian rule in Iceland for King Hákon Hákonarson. However, when he returned to Iceland, he did not live up to his promises.

Two years upon his return to Iceland, Snorri was re-elected as *Alþing* Law Speaker (AD 1222 - 1231) (Ólason 1951:306). During this time, he wrote his most important works. However, his deep involvement in the tumultuous Icelandic and Norwegian politics ultimately led to his death. He fell out of favor with Norwegian King Hákon Hákonarson who then had Snorri killed. Snorri was assassinated in his cellar in AD 1241 (Karlsson 2000:81). This political upheaval eventually led to the collapse of the Icelandic Commonwealth and the beginning of Norwegian rule (AD 1262) (Faulkes 2005:xii-xxiii; Karlsson 2000:84).

It is generally held that the *Prose Edda*, also called the *Younger Edda* and *Snorra Edda*, was written by Snorri around AD 1220 as a "handbook for poets and intellectuals" (Ellis Davidson 1990:24). However, all the surviving manuscripts were written after his death. These manuscripts "differ from each other considerably and it is not likely that any of them preserves the work quite as he wrote it" (Faulkes 2005: xiv). Faulkes 2005 uses the *Codex Regius* (GKS 2367 4to, different from the *Poetic Edda*'s manuscript version), as he believes it is the most coherent with the least amount of alteration (Faulkes 2005:xxx).

The *Codex Regius* containing the *Prose Edda* is called *Konungsbók Snorra-Eddu* in Icelandic. Together with the with the *Codex Regius Poetic Edda* this manuscript was given by

Brynjólfur Sveinsson to King Frederick III of Denmark in 1662. The prose manuscript was returned to Iceland in 1985 (www.handrit.is).

The *Prose Edda* is not only a treatise on skaldic poetic composition, it is also a composition of Norse pagan mythology. Skaldic versions of poems found in the *Poetic Edda* are contained in it and also adds flesh to "the contents of many myths that would otherwise have been lost" (Faulkes 2005:xvi). Snorri most likely compiled these myths from oral traditions passed down for centuries.

Skaldic poetry is much more complex than Eddaic poetry. This type of poetry appealed mostly to royalty and aristocrats. Its complex form consists of regular alliteration and internal rhyme. It also includes poetic devices called *kenningar* and *heiti*. *Kenningar* (*kennings* in English) are similar to metaphors. They are poetic words (compound words or phrases) that represent something else. They are made up of a base word and its qualifier. For example, *hrein-braut* literally means "reindeer-road," but as a *kenning* it means "land." The individual parts of kennings can also have their own kennings, which can create quite long and complicated descriptions of comparatively simple things. *Heiti*, on the other hand, are easier. They are simply nouns used strictly in poetry and not in everyday speech nor in written prose. For example, *jór* is used for "horse" instead of the normal *hestr* (Kristjánsson 1988:87-88).

The argument debating the pros and cons of Snorri's work, along with the other medieval texts, will be discussed in **Chapter 4**.

2.3.4. The Sagas

The Icelandic Sagas consist mainly of five different genres: *The Historical Sagas, The Kings' Sagas, The Contemporary Sagas, The Family Sagas, also known as the Sagas of Icelanders, and The Heroic Sagas*. There is debate about which categories some sagas should be assigned to,

but that discussion is beyond the scope of this thesis. For the purposes of this dissertation, I will only use the most commonly accepted categories. The word "saga" translates to "story" in Icelandic.

The *Historical Sagas* are *Íslendingabók* (the *Book of Icelanders*) and *Landnámabók* (the *Book of Settlements*). These two received their own category because they are the closest to being historical records (Karlsson 2000:66). *Íslendingabók* is thought to have been written by Ari, the Wise, Þorgilsson in the early 12th century. "It is the earliest major source on the first ages of life in Iceland…", although through a Christian lens (Sigurðsson 2000:186). This book describes the settlement of Iceland, along with the bringing of Norwegian laws, establishing the *Alþing*, the conversion to Christianity, and the discovery and settlement of Greenland.

Landnámabók is also from the 12th century and it is possible that Ari the Wise wrote this, as well. It is a codification of *Íslendingabók* (Karlsson 2000:66), which recalls the settlement of Iceland by every region in the country. "This book is unusual because it describes the beginning of an entirely new nation and because it was written at such an early date" (Sigurðsson 2000:186). It is likely that *Landnámabók* contributed greatly to a shared sense of Icelandic identity, as all of the family lineages are contained within it.

The *Kings' Sagas* were recorded around AD 1150 and are royal histories of Norway, Sweden and Denmark. Icelanders wrote these sagas, thus making them "the writers of royal history for Scandinavia" (Sigurðsson 2000:187). Also included in this category are the sagas of the *Orkney Islanders* (*Orkneyinga saga*) and the *Faroe Islanders* (*Færeyinga saga*), written around AD 1200.

The most famous of the Kings' Sagas is *Heimskringla* (Circle of the Earth), written by Snorri Sturluson around AD 1225. It covers the history of Norwegian kings from a mythological past and up until Snorri's time. This saga tells of Norwegians being unhappy with Norwegian King

Harald Hárfagri (Finehair) and thus relocating to Iceland. 13th century Icelanders used this to promote the idea that they chose to be an independent nation (Sigurðsson 2000:187).

The *Contemporary Sagas* relate stories of various Icelandic chieftains and their quarrels with each other, covering the period of roughly AD 1120 until the end of the Commonwealth (AD 1262). Most of these sagas only survive in a 14th century compilation called *Sturlunga Saga*. Some, however, can be dated to the 13th century. "The largest and most important of the contemporary sagas…is *Íslendinga saga* (the *Saga of the Icelanders*) …and recounts political intrigues, disputes and fights during the last eight decades of the Commonwealth" (Karlsson 2000:69).

The *Family Sagas* were mostly written in the 13th century and describe the life events of early Icelanders and their families (c. AD 930 - 1030). These sagas should be regarded as exaggerated histories. Although written afterwards, the stories begin during the settlement period in Iceland. These sagas are also called *Íslendingasögur* (the *Sagas of Icelanders*) and number around 40. Shorter stories within this category are called "þáttur/þættir". Examples of the longer sagas are *Egils saga Skallagrímssonar* (*Egil's Saga*), which was possibly written by Snorri Sturluson and *Laxdæla saga* (*Saga of the People of Laxardal*). These sagas tell the stories of everyday life, while highlighting conflict and family feuds. The subject of these stories is usually personal dramas as opposed to political events. The protagonists are also not chieftains, but mostly commoners.

The *Heroic Sagas* (*fornaldarsögur Norðurlanda*), written in the 13th century, are fantastical rather than historical. These sagas take place in the remote past of Scandinavia. The heroes that star in these stories have mythical components as they are not only of royal ancestry, but are also bigger, badder, and stronger than the realistic heroes of the Family sagas. These sagas also contain creatures such as dwarves and elves and describe supernatural events. They are based on folktales,

romances, and mythical poetry (Karlsson 2000:70-71). Examples include *Völsunga saga* (the *Saga of the Völsungs*), which includes the famous story of Sigurd and Brynhild, and *Ragnars saga loðbrókar* (the *Saga of Ragnar Shaggy Pants*), which tells of another legendary character, Ragnar Loðbrók, and his family.

The *Bishops' Sagas* (*bisupska sögur*) were modelled after the Saints' Sagas. These were also originally written in Latin and translated into Old Norse/Icelandic. The Bishops' Sagas, however, do originate in Iceland and detail the lives of Icelandic bishops, so they are used in this dissertation. The *Saints'/Holy People's Sagas* (*heilagra manna sögur*), were biographies of European Christian saints that were translated from Latin to Old Norse/Icelandic. These will not be used in this dissertation as their origin is outside of Iceland and Scandinavia.

Lastly in this list are the *Romantic/Chivalric Sagas* (*riddarasögur*), written in the 13th century. These sagas consist of prose translations of French (and other foreign) chivalric poems, as well as Icelandic versions of foreign hero knights and their love stories (Karlsson 2000: 68; 71). Examples include *Tristams saga* which is a retelling of the Celtic legend of Tristan and Isolde, and *Karlamagnús saga* (the *Saga of Charlemagne*) which relates the story of Emperor Charlemagne of the Holy Roman Empire. As these also originated outside of Iceland and Scandinavia, they will not be used in this dissertation, either.

2.3.5. Grágás – The Laws of Early Iceland

Grágás translates to "Grey Goose" in English and was officially written down in AD 1117 - 1118. It contains the laws of early Iceland and the origin of its name is unknown. It has mainly survived in two late 13th century manuscripts, *Codex Regius Konungsbók Grágásar* (GKS 1157

fol.) and *Staðarhólsbók* (AM 334 fol.). There are also vellum fragments from older manuscripts, as early as AD 1150, that contain additional laws (Dennis et al. 1980:13).

Íslendingabók (the *Book of Icelanders*) states that these early Icelandic laws were based on Norwegian ones brought over by a man named Úlfljótr. More specifically, these laws were based on *Gulaþing*, which was the legislative assembly of the Norwegian west coast. *Gulaþing*'s laws were modified to fit the needs specific to Iceland. The main focus of *Grágás* was the establishment of the *Alþing*, mentioned earlier in **Chapter 2**, as the annual general assembly in Iceland's *Þingvellir*, and a Lawspeaker to preside over it. The earliest known Lawspeaker took office in AD 930. These laws and procedures endured until Norwegian rule took over in AD 1262.

The early Icelanders decided to forego a monarchy. Instead, they chose a primitive form of democracy where laws were based on negotiation and compromise. For civil cases, there would be a prosecutor, defendant, and a panel of judges. "All free people enjoyed the same legal status but their immunity or right to legal redress might be diminished or lost by their own act" (Dennis et al. 1980:7). However, the Sagas tell many stories of outlaws who thought they could get away with going around the rules. People being people, it is likely that this occasionally did happen.

Grágás is not a "unified corpus of law", but rather a collection of laws that were in effect at different times. Therefore, several laws were possibly no longer in effect when they were written down (Dennis et al. 1980:9-10). The two main manuscripts also vary from each other, which are partially due to the transcriber and partially editorial. The *Grágás* laws from the *Konungsbók Grágásar* are divided into the following categories: the Christian Laws Section; the Assembly Procedures Section; the Treatment of Homicide; The Wergild Ring List; Truce and Peace Speeches; the Lawspeaker's Section; the Law Council Section; the Inheritance Section; the

Incapable Persons' Section; and the Betrothal Section (Dennis et al. 1980:13-15). The *Konungsbók Grágásar* is the manuscript used for the original and translation for this dissertation.

2.3.6. Grimoires and Folklore

Although Iceland officially converted to Christianity, in AD 1000, Icelanders never fully abandoned their pagan past. Obviously, Icelanders did not become devout Christians overnight. It would have taken several decades of transition. Also, as Iceland was isolated from mainland Europe and Scandinavia, strict adherence to Christian laws was not necessary. Certain pagan practices, such as eating horse meat and infanticide, were still allowed. Although Christianity was in full force by around AD 1100, the Icelandic Church had a "strong secular element" and a "cultural conservatism" that created a need for maintenance of traditions (Flowers 1989:5-6).

It is thought that the magic found in the 16th/17th century manuscripts was practiced from heathen times well into the conversion to Christianity. However, it was not until the tumultuous time of the Icelandic Protestant Reformation (AD 1550 - 1650) that Icelanders felt a need to put these magic spells to paper in grimoires. A grimoire is a book on how to perform magic spells and rituals.

Although Denmark officially adopted Protestantism (in the form of Lutheranism) in AD 1536, Iceland, under Danish rule at this point, did not accept this change easily. Lay Icelanders and Catholic clergy had resisted this transition and hence created a low-scale war in Iceland. In AD 1550, Catholic Bishop Jón Árason was executed, securing the win for Protestantism in Iceland. However, it would be another 100 years before Protestantism was accepted by most Icelanders.

During the 1600s, Denmark increased its stranglehold on Iceland, leaving the island nation suffering from political and economic depression. Icelandic scholars wrote down their traditions

and transcribed older manuscripts in order to ship them off to Danish scholars to protect. Manuscripts that were kept in Iceland were subject to destruction to be used as alternative materials due to the depression. Fortunately, the manuscripts containing magic spells survived this way (Flowers 1989:7-9).

As manuscripts containing Icelandic magic were written down amid religious turmoil and transition, Christian elements were fused within them. "From what we have in the Reformation Age, it is possible to speculate that the heathen [pagan] tradition was kept alive on its own terms for a long time but eventually was syncretized with the Christian tradition" (Flowers 1989:19). Christian elements, such as characters (Jesus, Mary, and Saints), and prayer formulas were added, as well as Judeo-Gnostic formulas.

Eventually, the pagan gods were either associated with demons within the magical context, or assimilated into Christian characters. However, again due to Iceland's isolation, magical practice was not prosecuted until AD 1554, when the first witchcraft trial was held. The last was in AD 1720. Even though Icelandic magicians were prosecuted, the number of trials is extremely small in comparison to the numbers of the European Inquisition in the 15th century. Only 350 trials were held, of which only 125 have survived in written records. Of these, only 26 were executed. Not only did prosecution of magic practice come to Iceland later than the rest of Europe, it was also strange in that only 9 of the 125 on record were women, with only one woman executed. Clearly, in Iceland, men practiced magic more openly than in Europe. It also appears that the rich and powerful were mostly exempt from prosecution (Flowers 1989:20;23-25).

From the Sagas, we know of two legendary magic books: *Rauðskinni* (*Red Skin*) and *Gráskinni* (*Grey Skin*). Whether they existed is unknown, but what does exist is the *Galdrabók* (*Book of Magic*). This manuscript was written in the second half of the 1500s and is a collection

of spells somewhat haphazardly thrown together. The *Galdrabók* contains two types of magic: the prayer formula and rituals designated by symbols and actions. Spells range from protection to medicinal to terrorizing others (Flowers 1989:28-30). Over 100 years, it was added to by four different scribes. It now resides in the *State Historical Museum*, as *Svartkonstbok från Island*, (SHM inv. nr 21284) in Stockholm, Sweden.

Other Icelandic manuscripts containing magic are the *Huld Manuscript* (ÍB 383 4to) from AD 1860; the *Kreddur Manuscript* from Eyjafjörður, written in the 1600s, but copied in the 1800s; the *Svend Grundtvig Collection* (DFS 1883/67) housed in Copenhagen (1800s); and the *Ólafur Davíðsson Collection* (Lbs 2302 4to), published in AD 1903, but from 17th century manuscripts.

Icelandic folktales, mostly collected in the 18th and 19th centuries, are filled with references to magic and magical practice (Flowers 1989:20). Jón Árnason's *Íslenzkar þjóðsögur og æfintýri* (*Icelandic Folktales and Wonder Tales*), is the Icelandic version of the Brothers Grimm Fairytales Collection. It was the first of Icelandic folklore to be compiled into a single collection.

Jón Árnason and his friend Reverend Magnús Grímsson were inspired by the growing European fascination with collecting and studying folktales. They decided to take up this trend in their home of Iceland. Neither of them could financially afford to spend all of their time on this project, so they enlisted the help of former students. These students spent time collecting and writing down stories from all around the country. The two friends then compiled the stories in a small book. After the initial published copy received little attention in 1852, the two friends severely slowed down their project. However, after Magnús died in 1860, Jón decided to continue on his own (Simpson 2004:11-12)

Jón continued to have his students send him stories. Once collected, he took on the "task of comparing, selecting and organizing the vast mass that had accumulated" (Simpson 2004:12).

This resulted in two volumes published in 1862 (Vol. 1) and in 1864 (Vol. 2). Manuscripts from Jón's unused variations were discovered and were later published in a 3rd edition, which also contains notes and indices (6 Volumes, 1954-61).

Jón's collection is divided into two categories: folktales and wonder tales, as the title suggests. The folktales are connected to real people and places and are generally held to be true by the audience. The wonder tales (or fairytales), on the other hand, are fantastical. The line is blurry, however, on what was considered "realistic" and "fantastical." For example, ghosts, changelings, and trolls were both seen as realistic and fantastical, depending on the type of story (serious or light-hearted).

Of upmost importance to this dissertation is that these folktales are not just modern stories. Many stories, motifs, and possible beliefs can be found in the sagas and other works from the middle ages. Some can even be said to be older as they are found in the poems and myths of pagan Iceland (the *Poetic Edda*). And although there are many parallels to other folklore traditions, such as the British Isles, the Icelandic folktales are firmly rooted in Icelandic localities and events. The closest related folklore tradition is that of Scandinavia (Simpson 2004:12-13), which is also briefly used in this dissertation (see **Chapter 3**).

2.4. Mythology

As mentioned earlier in **Chapter 2**, what we know of Norse mythology and religion mostly comes from the *Poetic* and *Prose Eddas*. Relying solely on these written sources, however, is very problematic, as they were mostly written after the conversion to Christianity. Many scholars have sought out the Christian influence in these myths to try to weed out the underlying pagan beliefs (Clover and Lindow 1985; Clunies Ross 1994; 1998). This is where archaeology comes in. It is

within the marriage between the medieval literature and archaeology where the fleshing out of a Norse pagan religion is done (Price 2019:139).

2.4.1. Norse Cosmology

Cosmological order of Norse mythology consists of creation, destruction, and social/class order. The *Poetic* and *Prose Eddas* differ slightly in these myths, so for the purpose of this dissertation, the commonalities will be used. The creation myth comes from *Gylfaginning* section of the *Prose Edda* and *Völuspá, Vafþrúðnismál*, and *Grímnismál* in the *Poetic Edda* (Hultgård 2012:214).

The Norse creation myth begins with a magical void, called Ginnungagap. The void was enclosed by two worlds: Niflheim and Múspelheim. Niflheim was the cold, icy, and dark world at the bottom of Ginnungagap and Múspelheim was the warm, fire-filled, and bright world at the top. At some point, Niflheim and Múspelheim began to grow towards each other, eventually meeting. As a result, an explosion of life occurred with the creation of the first being, a giant named Ýmir. As Ýmir was alone, he self-generated his own progeny. While he slept, he would sweat and from the sweat under his arms and his legs sprang the family of frost giants. A giant cow had also formed from the ice, named Auðhumla. Her milk nourished and sustained Ýmir.

Auðhumla also created life. As she licked a salty block of ice, the primordial god Búri emerged. Búri had three grandsons, Óðin, Vilji, and Vé, who would go on to kill Ýmir and the frost giants (except for two). They created the universe and the world as we know it from Ýmir's body. The universe was made up of three main worlds: Ásgarður, Miðgarður, and Jötunheimar. There is thought to have been nine worlds altogether but identifying them is tricky. The other worlds were the homes of supernatural beings such as dwarves and elves.

Miðgarður was the realm of humans. From Ýmir's skull, they created the sky dome. From his blood, the seas and lakes were created; from his eyebrows, a wall protecting from giants. From Ýmir's bones and teeth came mountains and stones; his hair became the forests and his brain the clouds. The three gods then created humans to inhabit this world. The first two humans were Askur and Embla and were made from two trees on the seashore. Ask and Embla are Icelandic for Ash and Elm trees. These two characters can be said to be Adam and Eve equivalents, which is clearly a Christian influence.

Below Miðgarður were the realms of the dead that extended into Niflhel (Niflheim). The goddess Hel, daughter of Loki, ruled here and took in the humans who died of disease or old age. Other worlds below included the dark places where Loki and his other monster children resided: Fenris the Wolf and Jörmundgandr the World Serpent.

Ásgarður was the home of the gods and lay above Miðgarður. The gods were divided into two families: the Æsir and the Vanir. These two families had a civil war, but eventually came together to join forces against the giants. Ásgarður is the location of all of the gods' individual homes, including Oðinn's "Valhalla" (Valhöll), which shone by the light of their silver and gold roofs. A rainbow bridge, called Bifröst, connected Ásgarður with Miðgarður (Price 2019:140-141; Ellis Davidson 1990:27;32).

Jötunheimar was the realm of the giants. The gods were constantly at odds with the giants and also frequently traveled to their homes. The relationship between the gods and giants was complex. Not only were they in constant conflict, but they would also interbreed and intermarry.

Yggdrasil was a giant ash tree known as the "World Tree". Its beginning is unknown, but it connected all of the worlds together. At the top of the tree lived an eagle, at the bottom a dragon. A squirrel would run between the two relaying insults. The roots of Yggdrasil were connected to

each world and allowed travel between them. Under the roots lay a well that nourished the tree, called Urðarbrunnur (the Well of Urðr). Guarding the well were three supernatural female beings called Nornir. These three, Urðr (Fate), Verðandi (Being), and Skuld (Necessity) were similar to the Fates of Greek mythology in that they decided the destinies of individual humans. They also maintained Yggdrasil so that it would not die from various animals gnawing at it (Ellis Davidson 1990:26-27).

The destruction myth is famous, even in popular knowledge. It also found in *Gylfaginning* and *Völuspá*, as well as *Vafþrúðnismál* and *Helgakviða Hundingsbana II* in the *Poetic Edda*. It is called Ragnarök, or the Twilight of the Gods. This depicts the final battle of the gods and their ultimate doom. It begins with three years of war followed by three consecutive severe winters (called *Fimbulvetr*). During these times, society crumbles, with brothers killing brothers and families falling. Then the earth begins to break, the land sinks into the oceans and Yggdrasil quakes. The great monsters who were once fettered are freed, along with all the giants and trolls, and create havoc. The gods prepare for war.

The gods know, like every other being in this universe, that they have a fated role to play during the destruction. Although they know their fate, they go down in flames of glory. Everyone is headed towards the field of Vígríðr where the ultimate battle will take place. The dark forces of giants, trolls, and the undead meet the gods and Oðinn's warriors of Valhalla. Each god has a matched monster to battle. In the end, everyone dies, including the gods, and the dead humans who will die again. The universe goes out with a bang.

Out of the destruction comes a myth of rebirth, which is likely a Christian influence. From the seas, the land arises, the fires dwindle, and Yggdrasil has survived. A Christ-like figure

emerges in the aftermath: Oðinn's son Baldur. Two humans, Líf and Lífþrasir, have also survived, who waited out Ragnarök in the trunk of Yggdrasil. They are tasked with repopulating the earth.

As this rebirth is most likely Christian ideology, "We are left with a sobering conclusion, which is that the Vikings created one of the few known world mythologies to include the pre-ordained and permanent ruin of all creation and all the powers that shaped it, with no lasting afterlife for anyone at all…The outcome of our actions, our fate, is already decided and therefore does not matter. What is important is the manner of our conduct as we go to meet it" (Price 2019:148-149).

The cosmology also explains how everyday things came to be, especially landscape features. The gods are usually responsible for these, as well as demonstrating good and bad qualities of human behavior. Another important element is the explanation of social order and the class system, reinforcing the fact that social status is pre-determined and divine.

The Norse class system consisted of the Jarl, the Karl, and the Þræll. This comes from *Rígsþula* in the *Poetic Edda*. This poem follows the god Heimdallr as he creates the social classes of humans. Heimdallr, under the name Ríg, visits three different households. The households represent the three different classes.

Heimdallr sleeps with each of the women of the households and sons are born. These sons are the progenitors of each of the social classes. Þrall (Slave) is described as dark-skinned, wrinkled, and ugly, with a crooked back and knuckles. He is also strong, as he labors all day long. Þrall is the progenitor of the lowest societal class, the slaves. Karl (Farmer) is described as rosy with lively eyes and grows up to be a farmer. Karl is the progenitor of the middle class, consisting of freemen, farmers, and craftspeople. The last son is Jarl (Lord/Earl). He is described as blond

and bright with piercing eyes and learns the ways of the nobility. Jarl is the progenitor the upper class made up of aristocrats (Larrington 2008:246-252).

2.4.2. Norse Religion in Practice

Like other peoples, the Norse believed in gods, supernatural beings, and an afterlife. The Norse gods were not a pantheon, as Snorri tried to categorize them. Rather, different gods dominated different areas and groups of people at different times (Andrén 2007; Brink 2007). However, as the literature tells, the gods fall into the following categories: Battle Gods (ex: Oðinn), Thunder God (ex: Þór), Fertility Gods (ex: Freyja), Sea Gods (ex: Njörðr), Gods of the Dead (ex: Hel), and Enigmatic Gods (Loki). Some gods overlap categories. Supernatural beings include dwarves (dvergar), elves (álfar), giants (jötnar), valkyries (valkyrjur), and spirits (dísar). Deceased humans are allocated to certain places in the Underworld, such as fallen warriors who go to Oðinn's hall of Valhalla (Valhöll).

The Icelandic literature describes these gods and beings, as well as ritual practices. There are also outside contemporary sources in which scholars have gathered information on Norse religion. The Roman historian Tacitus (AD 98) was the first to write about the Germanic peoples and their traditions. He believed that Rome could learn and benefit from their culture (Ellis Davidson 1990:14-15).

Three German clerics/historians, Rimbert (c. AD 870), Thietmar of Merseburg (c. AD 1010), and Adam of Bremen (c. AD 1075) visited Scandinavia and recounted their experiences among the "heathens". In their writings, they described religious rituals performed by the Nordic pagans. However, all of their accounts are somewhat questionable, as they were sent as mercenaries aiming to convert non-Christians. The Old English epic poem *Beowulf* (AD 1000)

also describes Norse religious practices in Scandinavia, but this too has been influenced by Christianity.

The Arab diplomat Ibn Fadlan (AD 922) also wrote of his encounters with the Norse on the Volga River. He wrote about a funeral of a chieftain on the river and the rituals involved. His account may be fairly reliable as his descriptions are without judgement and he did not have a mercenary agenda (Andrén 2014:14; Ellis Davidson 1990:14-15). However, none of these are definitive proof of actual religious practice.

Archaeological evidence, on the other hand, does confirm some of these rituals and myths. Cult sites, votive offerings in watery areas, human and animal sacrifice, petroglyphs (rock art), rune stones, placenames, figurines, and amulets (Þór's hammers) all are confirmations of religious beliefs and ritual practice. Burial practices are also important in deciphering Norse beliefs in the afterlife.

What we can say about Norse religion and its practice is that it was entwined within everyday life. Humans and nature were woven together and natural elements from rocks to animals were sacred (Gräslund 2000:56; Price 2019:71). There was no uniform or codified religion. Rather, the Norse religion consisted of groups of belief systems and practices that varied across time and location by were connected by common themes and motifs (Price 2019:157).

CHAPTER THREE:

THEORY AND METHODOLOGY

3.1. Theoretical Framework

The most appropriate framework for this dissertation is an interdisciplinary approach, as the argument is for incorporating multiple fields in archaeological interpretation. The best paradigm for this framework is Processual Plus.

3.1.1. Processual Plus and Interdisciplinary Approach

Michelle Hegmon (2003) has called the synthesis of the Processual and Post-Processual paradigms, "Processual-Plus," where scientific method is essential, as well as the incorporation of multivocality, agency, and the individual. In "Setting Theoretical Egos Aside: Issues and Theory in North American Archaeology," Hegmon (2003:217) explains that the term she coined, "Processual-Plus," is not meant as a unified theory, but rather as a term to refer to a broad range of approaches. She uses this single term because she believes, "it is more useful to consider crosscutting trends than to seek lines of difference." This approach is imperative for this work, as setting up and using strict paradigms severely limits mobility in thought and process.

To clarify, Processual-Plus theory "…takes on Post-Processual themes but attempts to develop systematic methodologies and generalizable conclusions" (Hegmon 2003:218). An example is the Post-Processual focus on symbols and meaning. Aligning symbols with Processualism generates three main theoretical categories. First is that meaning (gained from symbols) is a large contributor to social, economic, and religious/ritual processes. Hence, this leads to the development of power structures and political systems. Here, prestige artifacts act as social

signifiers of status.

Second, interpretations should come from all types of archaeological evidence, "…from portable material culture to architecture and landscapes" (Hegmon 2003:222). For example, instead of just focusing systematically on spatial distribution of artifacts or buildings, meaning is also attributed to the patterns of placement of these things in a specified cultural landscape. As a result, places and things take on cultural significance as opposed to just being purely functional.

Burials are a good example, as they represent more than just a place for deceased bodies. They function as places of cosmic interaction defined by myths specified by each culture. They also have the practical function of demarcating land ownership, as the commemoration of ancestors creates justification of property claims by living descendants.

Lastly, the third category sees symbols and meaning as important on their own merit and not just used in understanding social processes. Here, cosmological significance of urban planning, iconography, and architecture are studied within their own contexts, as opposed to relating to practical functions. Rather, the significance of religious and ritual practice connected with these archaeological features is explored (Hegmon 2003:223).

Most importantly, the concept of Processual-Plus allows for open dialogue not only between archaeologists, but also between archaeology and other disciplines. Hence, allowing this dissertation to incorporate manuscript and folklore studies along with aDNA sequencing and some geology.

3.1.1.1. Written Sources and Archaeology

Under the umbrella of Processual-Plus, this work takes an interdisciplinary approach. The central source being used in conjunction with archaeology is medieval Icelandic literature and

post-medieval folklore. To be successful in this venture, it is crucial to take care in how these disciplines are used together. This will be the focus of the upcoming **Chapter 4**.

Archaeology has traditionally been divided into two main subdisciplines: "prehistoric" and "historic." This division is set by the absence or presence of writing, respectively. “Writing was a conceptual revolution that made it possible to render the spoken word in signs. This representation system, which is found in a multitude of different forms, has been spread over the world…Many cultures without texts of their own are known to varying extents from descriptions by outsiders, composed in areas with writing" (Andrén 1998: 5).

The use of texts alongside archaeology, then, has generally been employed by "historical" archaeologists. Historical archaeology began with antiquarianism in 16th and 17th century Europe, which took written histories at face value. "Antiquarian study was based on the idea that human history as a whole could be followed through texts; even Creation itself was known through the book of Genesis” (Andrén 1998:1). This attitude has persisted even until modern times with views such as that of Peter Sawyer who said that historical archaeology is “…an expensive way of telling us what we already know (cited in Rahtz 1983:15),” and Göran Sonnesson (1992:299) who said that texts and artifacts are one and the same.

However, we know that historical texts are not literal in many ways as the writers were bound by their own biases and agendas. The extreme view of historical archaeology providing little to no benefits to the archaeological discipline as a whole has spurred from this acknowledgement, particularly by prehistoric archaeologists (i.e. Hodder 1986:154; Trigger 1989: 12; Hodder 1991). Grete Schmidt Poulsen (1986:173) said particularly of religious and literary texts: “they add little to the archaeological finds, since the written and the archaeological sources relate to different aspects of the culture…Archaeology has thus been able to ‘falsify’ literary evidence.” Although Schmidt Poulsen is correct in that sometimes archaeology can “falsify” literary evidence, it can also sometimes, confirm it (Meulengracht Sørensen 1986; Lucas and McGovern 2007; Zachrisson 2017).

"Historical archaeology" is usually applied to cultures that have written their own histories, which can create problems for those studying cultures with more blurred boundaries (Andrén 1998:1; 7). For example, the Norse of the Viking Age diaspora did not have traditional writing that recorded their own history, such as the extensive "historical" annals created by the Franks and Anglo-Saxons. These contemporary foreigners were "peoples of the book" (i.e. Christian or Islamic) and were defined and shaped by their doctrines. In contrast, the pagan Norse had a writing system comprised of runes, which were viewed as tools rather than cultural contraints. Runes were letters whose vertical and horizontal shapes were easily carvable. The runes were used to inscribe short messages into stone or wood, such as to commemorate someone or to send a quick message, as well as were tools to perform magic. Hence, writing held a different purpose, and perhaps significance, for the pagan Norse than their doctrinal contemporaries (Roesdahl 1998: 46-51; Gräslund 2000; MacLeod and Mees 2006).

The Norse were also written about by other groups: their medieval descendants as well as foreign contemporaries. The problems then arise of distance within time (i.e. Christian great grandchildren writing about their pagan ancestors) and distance between cultures (i.e. outsider observation with different cultural biases). There is also the problem of oral history, past and present. Oral histories can be just as old or older than the oldest written records, so then how does one categorize these cultures (Andrén 1998: 5)?

Christopher Tilley (1991:16) has suggested that text, oral history, and archaeology can all work together as they "… all involve a similar materialist practice: they are all transformations of a primordial human practice, variations on the same theme, sharing common qualities. All are fundamentally to do with communication between persons and the creation of meaning." Anders Andrén (1998:4) agreed and said that written records are just partially different versions of the same past shared by a group‘s material culture. As texts can aid archaeology and vice versa, a discourse applying texts to prehistoric archaeology has since emerged, particularly in Scandinavia (Lindow 2004; Gansum 2008; Grön 2008; Vidal 2013).

3.1.1.2. aDNA

Along with Icelandic literature, this dissertation also utilizes the hard science of ancient DNA (aDNA) sequencing. The use of aDNA has been a crucial advancement in archaeological interpretation. Not only is it used with human remains, it is also used to analyze animal remains. This dissertation utilizes aDNA in the analysis of ancient cat remains from Viking Age Iceland, which will be discussed in **Chapter 5**. For the purposes of this dissertation, only a brief introduction to the use of aDNA will be presented. Detailed discussion is far outside the scope of this project.

At its core, "Ancient DNA analyses rely on the extraction of the tiny amounts of DNA remaining in samples that are hundreds to tens of thousands of years old" (Rohland and Hofreiter 2007:343). aDNA samples are taken from bones, teeth, mummified tissue, and fossilized material. There are many different methods of extraction, each with their own benefits and flaws. However, this is a basic process that is followed. The description below is by no means comprehensive. It is just a very basic outline of extraction and sequencing.

The first step in aDNA extraction and sequencing is to make sure the location of extraction and analysis is a sterile environment. Extreme care must be taken to minimize contamination from modern DNA. Next, the bone sample itself must be decontaminated to prevent outside material from coming into contact with the interior sample. There are a few ways to do this, such as polishing the bone with sandpaper. Then, the bone sample is drilled to collect bone powder (0.5g-5g worth).

After the bone powder is collected, it must be purified so that the aDNA can be separated from other parts of the cell. To do this, the bone powder is dissolved and placed in a centrifuge. A centrifuge is a machine that applies centrifugal force via a rotating container. This separates the

cellular proteins to be eliminated. The resulting isolated liquid is then mixed with a buffering agent. A buffering agent maintains and adjusts pH levels. This mixture is placed in a column and centrifuged again. The column is a tube with binding agents to absorb the aDNA and allow the nucleotides and other compounds to flow out. The absorbed aDNA in the column is then extracted via a solvent (Yang et al. 1998:539-40).

The main problem geneticists face when extracting aDNA is the limited amount surviving in samples. In this case, Polymerase Chain Reaction (PCR) is used. PCR replicates a specific part of an aDNA sequence one wants to analyze. The replication process uses a *Taq* DNA polymerase (a heat resistant enzyme from the bacteria *T. aquaticus*), a template DNA, all four nucleotides (basic structural units of DNA), and primers (two 15-20 nucleotide DNA strands), and which are combined in a tube. The replication process takes place when this mixture is subjected to repetitive cycles of heating (creating aDNA strand separation) and cooling (bonding the primers to the aDNA).

The results of the PCR replication are then displayed for viewing via gel electrophoresis. The process of gel electrophoresis starts with adding the replicated aDNA sequence to a gel that acts as a molecular sieve. Electricity is applied to the gel, which then separates the nucleic acids and proteins by size and electrical charge. When the electricity is turned off, a DNA-binding dye is added. This turns the DNA bands florescent pink, which the geneticist is then able to read in ultraviolet light. The new replicated aDNA sequence is then read by a sequencing machine and the geneticist can determine the gene expression being sought (Campbell et al. 2008:403-6).

aDNA is used in archaeology for a variety of purposes. Before aDNA sequencing was developed, archaeologists and anthropologists would determine “race” of excavated remains by morphometric features (physical differences in bones). Gendered artifacts were also heavily used

to determine sex. aDNA refutes the racist and sexist conclusions made from these techniques (Müller 2013).

A recent example is that of the so-called "Viking Warrior Woman". In 2017, aDNA analysis was performed on a skeleton from a Viking Age burial ground in Birka, Sweden. Originally, this skeleton was assumed to be male because of all the warrior associated artifacts found as grave goods with the skeleton. However, the aDNA tells, yet again, a different story: the skeleton is biologically female. “This was significant because the grave, which was excavated in 1878, had long been seen, and repeatedly published, as a spectacular example of a high-status warrior burial—an identity with intriguing implications in the light of our new sex determination” (Price et. al. 2019).

The main use of aDNA in archaeology today, however, is to trace haplogroups (haplotypes with a common ancestor) in both humans and animals to study human migration patterns over time/space and to trace domestication. For example, the mtDNA (mitochondrial DNA) haplogroups in house mice has been traced in the North Atlantic, which follows human settlement patterns. The conclusions of this study found house mice came over from Norway to Iceland in the Viking Age, thus confirming earlier studies (Jones et. al. 2012).

3.1.1.2.Geology/Minerology

The second case study in this work is that of clear/white quartz and other clear/white pebbles found in Icelandic and Scandinavian pagan graves. This chapter section briefly goes over the basics of geology and then the mineralogy of quartz and other small clear/white pebbles.

Before the Earth was even created, the chemicals that would become its building blocks were formed. These chemicals (elements) came from stars and their processes. These early stars

died and dispersed the chemicals throughout the universe, which would later form our solar system and Earth. Minerals are chemical compounds and are the solids that make the Earth (Klein and Philpotts 2013:31). They are naturally occurring, inorganic, and have "…a definite, but not necessarily fixed, chemical composition" (Nesse 2000:3). Minerals are formed with the combination of high heat and high pressure.

The Earth is made up of a solid inner core, a liquid outer core, a lower mantle, an upper mantle, and a crust. The entire core is made up of mostly the heavy chemical elements of nickel and iron, but also contains some small amounts of light chemical elements including silicon, oxygen, sulfur, and hydrogen. This is where earth's magnetic field is produced. The mantle lies above the core and is a flexible solid. Within the upper mantle lies the asthenosphere, which is where the earth's plate tectonics move around. The crust is the outermost layer of the Earth and where we find minerals and rocks (Rapp 2009:46; Klein and Philpotts 2013:40-42).

Rocks are made up of groups of minerals and are formed by the movement of the plate tectonics. For example, the rock granite is made up of the minerals quartz, feldspar and mica. Rocks are divided into three categories, based on how they are formed: igneous, sedimentary, and metamorphic. Igneous rocks, such as basalt, are formed from molten material. Sedimentary rocks, such as sandstone, are formed by weathering and transport via sediments. Lastly, metamorphic rocks, such as schist, are formed by changes within the Earth, such as temperature, pressure, and fluids. (Klein and Philpotts 2013:31; 44).

However, this subsection only deals with minerals. Mineralogy is the branch of geology that studies the chemistry, physical properties, and crystal structures of minerals and are categorized as such. Minerals are divided into 11 chemical composition groups. As of 2013, there are 4150 known minerals, of which most are silicates. However, only 85 minerals form rocks. The

chemical group with which this mostly dissertation deals with is the Silicates (Mg_2SiO_4, Al_2SiO_5), apart from calcite which is a carbonate. Case Study 2's data is comprised mainly of the silicates quartz, feldspar, opal and zeolites. Silicates, in general, are insoluble metal salts containing silicon and oxygen in a negatively charged ion called an anion.

The main physical characteristics that minerals are classified by are habit, state of aggregation, color, luster, cleavage, hardness, and specific gravity. Minerals that have shapes made up of external smooth plane surfaces are called crystals. Habit is the external shape and symmetry of a crystal. How a mineral is found grown together with other minerals is its state of aggregation. Luster is how a mineral reacts to light. Cleavage is how a crystal break along its planes. Lastly, specific gravity is a mineral's density ratio to that of water's density. Color and hardness are self-explanatory (Hazen 1984; Nesse 2000:97-112; Klein and Philpotts 2013:103-135).

The crystal structure of minerals refers to their internal architecture. This internal structure is made up of an ordered arrangement of atoms or ions. These atoms or ions make recurring three-dimensional patterns within the minerals. The structure is determined by the size of the atoms or ions (Klein and Philpotts 2013:66-68; 161).

The minerals quartz, feldspar, opal, and zeolites found in Case Study 2's data, belong to the category of framework silicates (first ordered by chemical group and then by crystal structure). Framework silicates makeup two-thirds of the Earth's crust and their structure is that of a tetrahedron (a triangular pyramid made of four planes). This openness in their structure does not allow for stability at high pressures, restricting them to Earth's crust (Nesse 2000:201-234).

Quartz is the second most common mineral in Earth's crust and can be a component of all three types of rocks. Often, quartz is found as an amygdale. Amygdales are bubbles in volcanic rock that have been filled with a mineral, such as quartz. Quartz's chemical formula is SiO_2 and

its color is usually clear or white. Quartz's luster is vitreous (like glass) and its hardness is a 7 (on a scale from 1-10, 10 being the hardest, i.e. diamond). Its specific gravity is 2.65 and its crystal structure ranges from trigonal 32 to hexagonal 622. Under quartz, subcategories found in this study are chalcedony, agate, and onyx. Rock crystal is also found, but this term just refers to colorless and transparent quartz (Klein and Philpotts 2013:399-401;519).

Agate and Onyx fall under the category of Chalcedony. Chalcedony is a subcategory of quartz that encompasses the microcrystalline varieties. Microcrystalline means all quartz varieties that are made up of microscopic or submicroscopic crystals. Agate is a distinctly banded and fibrous variety of chalcedony and its color can be multi or various. Its luster is waxy and dull with a hardness of 6.5 – 7 and a specific gravity of 2.6. Agates are commonly found in the cavities of volcanic or other types of rocks and may form from silica deposits in seeping groundwater. Onyx is a black and white banded variety of agate. Its luster is waxy, and its hardness is 6.5 - 7. Onyx's specific gravity is 2.6 - 2.65 and its crystal structure is trigonal (Klein and Philpotts 2013:699-700).

Feldspar is the most common mineral in Earth's crust. It is also a major mineral in rock formation. Its chemical compositions are K, Na, Ca, Al, and Si. Feldspar is split into two groups: alkali (or K) and plagioclase. K feldspar ($KAlSi_3O_8$) is found in all three types of rocks. Its crystal structure is tetrahedral with a hardness of 6 and a specific gravity of 2.55. Colors range from clear to white to light pink and is translucent to transparent. Plagioclase feldspar ($NaAlSi_3O_8$ to $CaAl_2Si_2O_8$) is found in almost all igneous and metamorphic rocks. Its hardness is a 6 with a specific gravity of 2.62 – 2.76. Its color ranges from white to shades of gray. It is iridescent and its crystal structure ranges from triclinic (3 unequal oblique axes) to tetrahedral (Klein and Philpotts 2013:389-99).

Opal's chemical formula is $SiO_2 \cdot nH_2O$ and its color also has a large range: clear, white, yellow, green, blue, black, brown, red, and orange, but common opal is milky white. Precious opals have multiple colors that appear to glow and change with light. Its luster ranges from vitreous (glass-like), to dull, to waxy to greasy. Opal's hardness is 5.5 – 6.5, its specific gravity is 1.9 – 2.3, and its crystal system is amorphous. It is found as fillings or linings of host rocks (Klein and Philpotts 2013:116;1034; Rapp 2009:83).

Zeolites, like feldspar, are a little more complicated. Zeolites are a group of tectosilicates (infinitely extending tetrahedral crystal frameworks) and can also be found as amygdales. Their chemical makeup is SiO_4 and AlO_4. There are about 60 naturally occurring species categorized under many subgroups. Zeolites have a lot of voids in their crystal structures. These voids can contain H_20, Na, Ca, and/or K atoms. Zeolites are found in metamorphic rocks that start in the cavities of basalt flows (Rapp 2009:325; Klein and Philpotts 2013:893;1063;1175).

Lastly, calcite, falls outside of the silicates and is a carbonate. A carbonate is a mineral that has carbon at its center with oxygen at the corners of equilateral triangles. Calcite is a non-water (anhydrous) carbonate, that is newly formed by chemical reactions due to atmospheric conditions. It also a detrital mineral, which means that it destroys earlier minerals present, such as feldspar. Calcite forms in sedimentary and igneous rocks and is the main component in limestone. Calcite's chemical formula is $CaCO_3$ and is triangular in structure. Its crystal form is mostly rhombohedral, scalenohedral or stalactite. Its hardness is a 3 with a specific gravity of 2.67 - 2.73. Calcite is usually colorless or white but can come in a variety of other colors. It is also transparent or translucent with a vitreous, resinous luster. Calcite can also have a strong fluorescence (Klein and Philpotts 2013:661;677-679; mindat.org).

3.1.2. Ritual Theory, Symbolism, and the Cognitive Approach

To find evidence of religious ritual activity in archaeology, it is necessary to define what exactly religious ritual activity is. There is no one universal definition of religion or ritual, as the terms have been debated for over 100 years. Anthropologists have long discussed what religion and ritual actually are and their functions within societies, such as Durkheim (1965), Eliade (1968), and Lévi-Strauss (1969), etc. However, the simplest definition of religion is Edward B. Tylor's (1871:424) "belief in spiritual beings." This dissertation utilizes Tylor´s definition with the addition of belief in life after death.

Although the term ritual can be used to denote both religious and non-religious acts, only the religious performances pertain to this dissertation. With this in mind, this dissertation works under David Hicks´ (2010:xxii) definition of rituals as "…repetitive forms of behavior that are carried out on socially prescribed occasions and that convey messages whose meaning may-or may not-be explicitly known to the participants."

Several anthropologists have theorized on the universality of religious ritual. Rodney Needham (1985) suggested that humans are ceremonial creatures and therefore ritual is just part of natural human behavior. However, this approach does not cover any psychological or social contexts. Others have filled in this gap, such as Bronislaw Malinowski (1948), who stated that ritual is employed by humans as a means of coping with anxiety and stems from a desire to control one´s own fate. Durkheim (1965) suggested that rituals are used to maintain social cohesion and serve as a function of social interaction. The universality of ritual in human behavior likely involves all the above in various entanglements.

One of the main types of religious ritual is the recreation of myths. Myths are stories within a belief system that explain the human condition as well as the natural world. Myth can be viewed

as the personification of natural phenomena (Frazer 1922). The main cross-cultural themes covered by myths are death, birth, fertility, and the afterlife. However, myths serve more than just this single function of explanation; they are multifaceted. Myths often have communicative and affective dimensions and need to be understood as part of a complex system (Clunies-Ross 1994:14).

Myths not only explain how humans and the world came to be, they also explain the origin of things essential for human survival, such as fire. Myths are also used to justify social inequalities as well as to resolve intergroup conflict. Myths can also create group identity and solidarity (Lévi-Strauss 1969; Lévi-Strauss 1978).

Myths are closely associated with rituals. Myth is functional and is oftentimes performed as a ritual. A very vital ritual in many societies is the recreation of cosmological myth. These religious rituals are performed with the belief that doing so keeps the universe, and therefore the human world, in proper balance. This in turn can also allow humans to have contact with the primordial supernatural elements or beings that the myths describe (Eliade 1954; Eliade 1969). Most importantly for archaeologists, myths are a large part of material culture.

Rituals can also be performed without representing myths. As formalized acts, rituals can create their own meanings and hence change the religion its based in (Bell 1992). Individuals are constantly reshaping their religions and belief systems through their rituals (Rowlands 1993; Bradley 2002). “Although specific rituals may remain the same over long periods of time, their meaning for society is constantly recontextualized. People transform and change underlying religious beliefs through the creation and practice of rituals” (Fogelin 2007:58).

The concept of *sacred versus profane* is an important facet of ritual theory. According to this principle, everything in existence, whether real or ideal, is classified by humans into two

categories: those which are sacred and those which are profane. The sacred and the profane are two sides of the same coin where one is defined by the other: Sacred things are special and profane things are not (Eliade 1954; Eliade 1969).

Sacred things are considered superior to profane things because they supposedly possess supernatural properties. The sacred are therefore set apart from the profane, both ideologically and physically. The sacred are also forbidden to the uninitiated within the community and are usually delegated to the oversight of spiritual leaders. Just like profane things, sacred things can be physical objects or places. They can also be physical or vocal performances as well as intangible concepts, such as the spirits of the dead (Durkheim 1965:52-57). This principle is what allows archaeologists to see traces of religious ritual activity in the ground.

Symbolism is another essential part of ritual theory. Symbols are objects, words, actions, or concepts that represent something else. This representation can be in the form of association, resemblance, or tradition. Religious symbolism is the representation of the sacred. “Symbols are the most important vehicles by which culture is transmitted…By employing symbols-words, gestures, colors, and every type of medium that can be used for symbolization-societies give life to their beliefs and meaning to their rituals” (Hicks 2010:xiv-xv).

For archaeologists, symbolic objects (or concepts depicted via objects) are imperative for interpreting ancient religious beliefs and practices. Symbols are material by nature and hence ideology is conveyed through these objects (Robb 1998:330-1). For Ian Hodder (1982) and Michael Schiffer (1999:10;30-50), objects do not just reflect the culture who made them, but also actively participate in creating that culture. Material culture therefore both "constrains and creates human behaviour," (Oestigaard 2004:48). By studying objects with religious symbolic meaning, archaeologists can attempt to understand the social complexities of the cultures that produced

them.

How then, does an archaeologist determine which archaeological remains would have been perceived as sacred or symbolic to the cultures that left them behind? The Cognitive Approach, also called the "archaeology of the mind", is the method this dissertation uses to answer this question.

In the Cognitive Approach, religious experience in past cultures is interpreted by cross-cultural comparison. This is to say that the experience of the supernatural as seen by cultures who could tell us (either via written word or spoken) can be translated to past cultures who only left archaeological features behind. If humans can experience religion and the supernatural today, then past cultures must have been able to as well (Renfrew 1994:48).

A major obstacle in looking at these religious and ritual symbols is what Renfrew calls "embeddedness". Embeddedness is where religious and ritual activity is inseparable with daily life activities. Thus, singling out purely religious and ritual activity from its other functions can be difficult. However, it is worth it to try. To achieve this, the Cognitive Approach seeks to "…identify various aspects inherent within most or all religions, which we can expect to accompany those other aspects which may be more readily identifiable in the archaeological record" (Renfrew 1994:49).

The important thing to remember is that religious experience and beliefs are largely shared by a community. Therefore, religious belief is a social phenomenon. As a group, people choose to designate their religious activities to specific places, times, objects, and types of action. The archaeologists' job is to recognize and define these choices (Renfrew 1994:49).

This is not to say that individuals within this community do not show variance, however. A spectrum of meaning will always be present, as different people will understand their collective

symbols, myths, and rituals in various ways (apart from dogmatic religions). When education is increased and precise communication about beliefs and rituals are conveyed to mass audiences, then the variance declines (Barth 1987:31-35;63;79-81). For example, there was a lot of variance within pagan Iron Age Scandinavian burial practices, due to social class segregation as well as local preferences (Price 2020:158). When Christianity was introduced, a standardization came as well as inclusivity (Zoëga and Bolender 2017b:72).

Renfrew (1994:51-53) says the key to identifying religious ritual is repetition. Repeated themes, symbols, artifacts, and detectable activity are the clues archaeologists use to designate ritual and religious activity. He has also compiled a list of archaeological indicators of ritual and religion to look for that seem to be cross-cultural patterns .

These indicators are (Renfrew 1994:51-52, from Renfrew and Bahn 1991:359-60): Focusing of Attention; Boundary Zone between this world and the next; Presence of the Deity; and Participation and Offering. The Focusing of Attention includes choosing special places either in nature or separate buildings. It also involves choosing special equipment designed to grab attention, such as structural features like hearths, benches, and portable objects such as vessels and noise makers. The designation of the Boundary Zone between this world and the next involves conspicuous public display and expenditure. The sacred area between worlds is also marked by a separation between that which is seen as clean from dirty. For example, the use of water (such as basins, pools, or natural bodies of water) is often used to define a clean sacred area. Oftentimes, the clean and the dirty will be strongly bound together as one is defined by the other (Douglas 1966:3).

The Presence of the Deity is found in imagery and iconography. A supernatural being may appear as a direct representation, in abstract form, by themes associated in the being's mythology,

and/or relics. Lastly, Participation and Offering are found with gestures of worship that can include drugs, human and animal sacrifice, and food and drink. Votives (such as weapons) are also regularly used where they are intentionally broken and discarded. This practice is particularly noteworthy for ancient Scandinavia (Ilkjær and Lønstrup 1982). There is often a great investment of wealth and time involved in not only the offerings, but in the structures built to house the rituals.

3.1.2.1. *Scandinavian Myth and Ritual*

Scandinavian myth, religion, and ritual studies have been a focus of scholarly interest for over the past few centuries. The myths, of course, come from the medieval Icelandic literary record and early scholars were quite literal in their extrapolations. For a long time, the ideas about Norse pagan religion and ritual also came from the medieval Icelandic literature, particularly the sagas and their depictions of pagan activities. For example, Jón Hjaltalín (1871) discussed the concept of animal worship amongst ancient pagan Scandinavians by looking at the way in which animals are mentioned in the medieval literature.

James Frazer´s acclaimed *The Golden Bough* (1922) delved into Scandinavian myth and ritual, as well. Frazer examined the myths about the Norse god Baldur. Although many scholars have determined Baldur and the myths about him to be of Christian invention, due to his parallels to Jesus Christ (Bugge 1867), Frazer argued that Baldur was in fact a pagan deity who had connections with fire rituals across Europe. According to Frazer, the myth of Baldur´s blazing boat funeral was dramatized and performed at these fire rituals, whose function was to help the sun on its journeys across the sky during the solstices.

Almost 100 years later, Georges Dumézil continued in this vein of thought. Dumézil wrote his renowned *Gods of the Ancient Northmen* in 1973, which discussed the Indo-European roots of Norse mythology. Dumézil did this by comparing it to the mythology of other cultures. When doing so, he found common thematic traits, such as the characteristics of the gods and divinely

ordained social class structure, within the Norse mythology as well as many other Indo-European mythologies.

Gabriel Turville-Petre´s *Myth and Religion of the North: The Religion of Ancient Scandinavia* (1964) discussed Norse pagan religious cults. He considered evidence for them with the accounts of contemporary outsiders, such as the Roman historian Tacitus (AD 98), as well as accounts from the medieval Icelandic literature. Turville-Petre explained that fertility cult processions and human sacrifice likely did take place in pagan Scandinavia, but the concept of pagan "temples" in the North is more complicated.

For example, there are some accounts of pagan "temples" from contemporary outsiders, i.e. Adam of Bremen (AD 1076). However, the Old Norse terminology that has been translated as "temple," most likely did not hold the same meaning as it did for say the ancient Romans. In fact, foreign writers such as Adam of Bremen had strong agendas to portray the Norse pagans as antitheses to themselves, (i.e. Christians), hence making the pagan "temple" a demonized counterpart to a "civilized" church. Therefore, more evidence, such as place-names and archaeology, is required (Turville-Petre 1964:236). Hilda R. Ellis Davidson (1968 et seq.) has also produced several publications about Norse pagan religious cult practices along the same route as Turville-Petre, with multiple lines of evidence.

There are many examples of other progressive theoretical works about Norse pagan religion, myth, and ritual in archaeology (Brink 1990 et seq.; Hedeager 2002 et seq.; Ratke and Simek 2006). However, the modern leader in this arena is Terry Gunnell. Gunnell (2001 et seq.) has written a multitude of works on several different topics within the field, particularly focusing on the dramatization and ritualization of myth in cult practices. Gunnell is a visionary as he has demonstrated the myriad data one can get with interdisciplinary collaboration. As a folklorist, Gunnell has proven what can be done by using archaeology, along with several other lines of evidence. Archaeologists, particularly working in Iceland, should be taking a lead from Gunnell and making research objectives a two-way street instead of a one-way.

3.1.2.2. Animal Symbolism

As the first case study of this dissertation is about cats, a look into animal symbolism and human-animal relationships is necessary. Archaeologists studying animals have historically looked at them in one of two ways: from an archaeozoological perspective or from that of zooarchaeology. Archaeozoology is closely related to the natural sciences, such as natural history and veterinary medicine. This field has focused on the evolution of animals, the historyf the domestication process, and the ecology of past human settlements. Zooarchaeology, however, is more closely realted to anthropology and sociology, as it "studies past human life through the animal remains found at their sites" (O'Day et al. 2004:xi).

Either from an archaeozoological or zooarchaeological standpoint, animals have only ever been studied as objects rather than beings with agency, up until recently (Jennbert 2011; Overton and Hamilakis 2013; Jennbert 2014). Animals have of course had a much more complicated and multifaceted relationship with humans. It must first be stated that our modern Western bias of viewing animals as something different than humans has permeated much of the research. Humans have not always understood animals in this way.

Animals have always been around humans and humans have always noticed them. Not only do we eat them and exploit them for various byproducts, we also admire them. We see ourselves in them as they are like us in many ways. Yet, animals are different enough from humans, which creates a mystery surrounding them, as well. Animals are therefore like humans and yet not-human simultaneously. Animal symbolism and metaphors, therefore, are very common cross-culturally. In this way, animals help humans understand themselves as well as the wild, chaotic, and uncontrollable natural world (Jennbert 2011). The symbolism and metaphors, in turn, actively create the types of relationships between humans and animals (Ingold 1988; Datson and Mitman 2005; Russell 2012).

Humans have regularly understood animals as akin to themselves and often blur the lines between the two. Zoomorphic and anthropomorphic symbols, therefore, are prevalent in a myriad of art styles across the world. Zoomorphic human figures are usually interpreted as a desire to

obtain or portray an admired trait of that particular animal (Jennbert 2011:187). For example, the early Viking Age Borre art style incoroporates many animal figures, particularly the "gripping beast". This has been interpreted as the animals' strength and protection directed through the design and onto the bearer (Kristoffersen 1995; Hedenstierna-Jonson 2006). Depending on what qualities and traits a particular culture finds positive or negative, animals with those qualities are also associated with certain humans thought to embody those traits as well as particular social categories. For instance, hunters may be associated with top predator and domesticated livestock may be associated with household roles (Jennert 2011:180).

Vice versa, animals are also often depicted as having human qualities, particularly in myths. As metaphors, anthropomorphized animals are used both to praise and criticize certain groups of people or individuals (Tilley 1999; Datson and Mitman 2005). Certain animals are cross-culturally considered to have human-like consciousness, due to their intelligence. How that culture views that animal, however, varies. For example, the raven is a very intelligent bird, but it is also a scavenger (Jennbert 2011:176). For many Native American and Circumpolar groups, the raven is an important spiritual helper, but is also very dangerous as it is a harbinger of death (Mandelstam Baltzer 1996). Similarly in the Norse mythology, the raven is associated with seers and shamans and is also considered a wise messenger. However, unlike the Native American traditions, the raven is viewed in a more positive light in the Norse mythology as it is also considered a fierce battle spirit. As warfare, warriors, and death in battle were considered positive, so too then was the raven (Ellis Davidson 1964:65; 146-147; Ellis Davidson 1969:40-41; Jesch 2002).

Besides symbology and metaphor in art and myth, the manner of treatment of deceased animals is also an effective way of interpreting a society’s relationship with them. All throughout human history, humans across the globe have deliberately set aside certain animals for special burial treatment (Morris 2011). Just as in our modern society, humans in the past determined certain types of people as well as animals, varying with location and time, to be more important to their societies than others.

This attitude is reflected in how both human and animal corpses were disposed of, not including animals used for ritual feasting at funeral sites (Bond and Worely 2006:89, 92). Not only have certain animals been buried akin to humans (as opposed to being discarded in trash middens), they have also been deliberately sacrificed to accompany human burials. Animals have also been found in sacrificial ritual contexts without humans, such as house foundation deposits.

Not only are animals in human burials social signifiers (i.e. someone wealthy enough to kill and bury an expensive horse) (Jennbert 2014), they also represent a special and close relationship. The animals chosen for accompanying humans in the afterlife likely had roles as companions in life as well as having a role guiding the dead to their new afterlife. For example, in Iron Age Scandinavia and Iceland, horses and dogs held a special place in human society, as they are both commonly found buried alongside humans as well as having their own special graves. The dogs and horses were not only imperative as functional working animals, they were also companions and perhaps even spiritual guides (Gräslund 2004; Bond and Worley 2006; Jennbert 2006; Loumand 2006; Maher 2009; Leifsson 2011). The cremation of animals together with humans, as opposed to inhumation, can viewed as the actual physical blurring of the two, melding them together (Williams 2004:281).

Lastly, animal symbolism and metaphor can also be associated with individual body parts. Humans, since at least Plato, have believed that the human body represented the cosmos (Douglas 1973). Hence, people could also understand cosmology similarly in the bodies of animals. Particular body parts of both humans and animals are loaded with symbolism, not only in art but in archaeological contexts. The most obvious example is the phallus, which has fertility implications (Hodder and Meskell 2011; Jennbert 2011:123-124). Specific body parts of animals also appear in mythological narratives as "significant aspects of a cosmological structure," (Jennbert 2011:130).

Animal body parts are also seen in magical ritual. For example, many cultures view the head as the location of the soul and hence animal heads found in ritual contexts are interpreted as the essence of that animal (Carlie 2004:136). As a head, it not only contains the animal's essence,

it also has the voice, which can ask for divine help. In this way, animal body parts can be intermediaries between humans and the divine (Ellis Davidson 1988:121; Williams 2001:203). This tradition even continued into medieval Christian Europe with animal parts as ingredients in magic spells (Mitchell 1998).

3.1.2.3. Shiny Stone Symbolism

Minerals have long been used by humans, from prehistoric people extracting metals to medieval medicine to modern day New Age crystal healing. Humans' fascination by minerals and precious stones can be seen from prehistoric times. Eventually this fascination turned into traditions starting with ancient India, Mesopotamia and Egypt and continuing with the ancient Greeks and Romans. These traditions of precious stones and their "powers" continued and evolved in the middle ages and by the 17th century, they were studied under scientific scrutiny (Lecouteux 2012:1).

Archaeologists have long worked with petrology (the study of rock composition) and mineralogy. Even the conventional eras with which archaeology categorizes human cultural evolution derives from humans extracting and using different minerals (Stone Age, Bronze Age, Iron Age). Not only did our ancestors use minerals and precious stones for practical purposes, they also contained magic properties as well as symbolic and religious meanings (Kunz 1913:1-2; MacLeod and Mees 2006:2; Rapp 2009:75; Klein and Philpotts 2013:52).

The subcategory of "…archaeominerology is the study of the minerals and rocks used by ancient societies over space and time, as implements, ornaments, building materials, and raw materials for metals, ceramics, and other processed products…" although this is mostly practiced by geoarchaeologists (Rapp 2009:1). As minerals are deposited in uneven amounts throughout the world, the trade of minerals became increasingly important to humans. Thus, stones and minerals

have had a huge impact on cultural revolution throughout the world.

Starting at the beginning, our Stone Age ancestors quickly found which rocks chipped and flaked best for different types of tools and weapons. The term lithics, as used in archaeology, deals with this use in tool and weapon making. For example, quartz is good for making hammerstones and basalt is used for quern stones.

Softer minerals have been used for carving for a long time, which we know goes back at least until the Paleolithic. Here, minerals were carved into amulets, with holes drilled in them for wearing, serving decorative and/or magic purposes. In the Neolithic, we get figurines carved from minerals that either acted as entertainment or represented some kind of religious/ritual or magic purpose. Soft minerals have also been long used for practical purposes, such as to carve out vessels of various kinds.

As time progressed, precious stones and minerals played a large part in social signification, such as status, profession, and religion. Precious metals have been the most coveted minerals, such as gold (Au), silver (Ag), and copper (Cu). The use of these metals in weaponry, jewelry and other various artifacts suggest high status in cultures across time and space (Rapp 2009:45;69-75;91;121;143).

Shiny rocks, particularly quartz, have also fascinated humans since they were first encountered. Quartz, along with feldspar, calcite, and some opal, is triboluminescent, which means that it shines from static electricity. When the stones are rubbed together, the subsequent friction emits light and causes the stones to glow (Whitley et al. 1999:236). Not only does this happen by purposely rubbing pieces of quartz together, it can also happen naturally such as when quartz is rolled around together by water.

Mercea Eliade (1964) said that because of this triboluminescent quality, several cultures associate quartz with light and that this light is believed to come from supernatural sources. There is a cross-cultural repeated pattern of humans attributing quartz with magical and supernatural powers. Quartz in particular tends to be a common element of shamanic and other ritual specialists' tool kits (Boivin 2004; Lewis-Williams and Pearce 2004). For example, quartz is said to be "solidified light" for the Australian Aboriginal cultures and by utilizing quartz, one can commune with the supernatural (Eliade 1964: 138). For the Ancient Mayans, the aspect of "shininess" was an important religious element, as can be seen in the "shine" glyph, iconography, and costume pieces. They believed that the shininess of stones came from lighting strikes, and hence a divine origin. There was even a deity that was the personification of "shininess" (Stuart 2010).

Many cultures have understood quartz as the remains of primordial beings and/or elements. For example, across South America, humans have perceived the shining quality of quartz as being a primordial element. The creator god, Wanandi, is made of this primordial light, the same as what makes up quartz. Quartz is also seen as the petrified bones of gods as well as other primordial beings of light (Sullivan 1988:106-107; 120; 711-712)

Anders Kaliff (2007:184) has argued that shiny stones can represent eternal life and re-birth. Stones, such as quartz, that visibly create sparks and light are symbolically linked to fire. The creation of fire or light can explain why humans believed that supernatural beings reside in stones. The South American Warao shamans, for instance, believe that quartz is crystallized fire and primordial heat and light. Therefore, having glowing quartz connects them to the primordial divine (Sullivan 1988:416; 654).

Quartz and other shiny stones have also been universally used as protective and healing amulets. Through homeopathic (imitative) magic (Frazer 1922), many cultures, past and present,

believe the seemingly eternality and light of quartz could be transferred to those who bear it. This tradition was so strong in pagan Europe that it even pervaded into the Christian Middle Ages and beyond (Kunz 1913:23-27).

3.1.3. Burial and Mortuary Theory

Finally, this dissertation makes use of burial and mortuary theory. Mike Parker Pearson's (1999) definitive *The Archaeology of Death and Burial* is the main guide this dissertation utilizes. Pearson's book covers how humans dispose of their deceased; where humans place their dead; understanding how a body is treated; how humans experience death; how to use ethnoarchaeology and analogy to interpret meaning; death used for status, rank, and power purposes; and gender and kinship expressed in death.

The crux of burial and mortuary theory is that it is, contrary to its name, the study of life. What Parker Pearson and this dissertation aim to focus on is how burial and mortuary practices can tell archaeologists how a person lived. The physical features of human remains and what they can tell us about the physical body is left to bioarcheologists (also called osteoarchaeologists) (Crossland 2010: 388).

There are several ways to dispose of a deceased body. These different methods can reveal how the living viewed their dead. Different cultural groups have various preferences for disposal. Oftentimes different groups (i.e. gender, class, age) within the same community are designated with their own methods of disposal. As such, burial methods and grave goods can be evidence of identity, social roles, and ideology (Shanks and Tilley 1982; Joyce 2005; Crossland 2010).

No matter the matter the manner of disposal, the mortuary process is ritual in nature. Cross-culturally, mortuary practices employ some form of dramatized ritual when disposing of human

remains. Inhumation, which is the burying of an intact body in the ground, requires ritual functions. The basic acts of digging a hole, putting a corpse inside, and then filling it in are part of a process that allows the living to have an active role in that person's departure from the community. More often than not, inhumations incorporate many more ritual acts than just the basics mentioned above, for example placing the dead in large mounds surrounded by extensive superstructures (Parker Pearson 1999; Williams 2009).

Cremation, unlike inhumation, allows the mourners to witness the physical transformation of the body in real time. Cremation involves burning as much of the body (and other inclusions) as possible. This creates a spectacle in that the body bursts, moves, and makes deafening sounds within the fire. The dead are thus visibly transformed in front of the mourners' eyes. The fire then leaves residual bones that require further action: either crushing them or simply gathering them (Pearce 1997; Williams 2008: 248-149).

Cremation requires a lot more resources and time than basic inhumation and is not an option for many groups. For example, pagan Viking Age Iceland does not have any known cremation burials. While cremations were quite common all over Viking Age Scandinavia, Iceland simply did not have the necessary resources to practice it. Viking Age Iceland, like today, was very scarce in trees and the ones that were present needed to be used for other necessary functions for the living. Therefore, the pagans in Viking Age Iceland had to choose inhumation, even if they practiced cremation elsewhere (Eldjárn and Friðriksson 2016).

Less common disposal methods include excarnation, mummification, and bog burials. Excarnation involves removing the flesh and organs by either natural means or by human intervention. Mummification is the preservation of the body via desiccation, also by either natural means or human intervention. Bog burial is similar to mummification as the body is also preserved.

It differs, however, in that the body is not desiccated but rather preserved due to the inability of bacteria to break down the body (Glob 1969; Parker Pearson 1999).

Several factors come into play when analyzing a grave, whether it be an inhumation or cremation. These include the shape and depth of the hole; the degree of formality; the location within the landscape; the orientation of the grave itself, its inclusions, and structures associated with it; and how the body is arranged (Parker Pearson 1999:1-7). For example, Viking Age pagan burials in Iceland tend to be oriented in alignment with or towards bodies of water, suggesting water was an important aspect about travel in the afterlife (Maher 2009:205-215; Friðriksson 2013).

Grave goods, or what is included with the human remains, can have multiple functions, the most common of which are clothing, accessories, vessels, and food and drink remains. These inclusions can either be gifts from the living to the dead; equipment to be used by the dead in the next life; magical items to prevent the dead from haunting the living; and indicators of social status. Lastly, grave goods can also reflect religious belief, especially cosmology, and mythology. For example, the Þór's Hammer pendant found in many Viking Age pagan graves across Scandinavia reflects not only the belief in a supernatural being but also in a mythology (Andersson 2005; Andrén 2014:189).

The cemetery itself is a ritual space and patterns within it can reveal cosmological beliefs (Parker Pearson 1999; Williams 2008:256). Multiple burials make up cemeteries or grave fields, each having their own kind of organization. Not only can these organizational patterns provide relative dates and track changes over time, they can also be informative about social status and cosmological beliefs. For example, Anders Andrén (2014) has argued that stone tricorn settings within pagan Scandinavian Iron Age burials represent the mythological Yggdrasil, the tree of life,

which suggests a belief in a cosmological landscape. Another example is the orientation of medieval European Christian graves, which tended to be East – West in order to face Jerusalem (Parker Pearson 1999:7-17).

3.2. Methodology: 2 Case Studies

The basis of the methodology used in this dissertation is the utilization of two case studies. Both case studies focus on unusual burial inclusions found in Icelandic Viking Age pagan graves and grave fields. To establish a pattern taken from Viking Age pagan Scandinavia to Iceland, these unusual burial inclusions are compared to finds in Viking Age Scandinavian pagan burials (restricted to Norway, Denmark, and Sweden). The two case studies are cat remains, which is based on Prehal's 2011 MA thesis, and white pebbles/quartz.

3.2.1. Data Collection

The data collected for both of these case studies was collected from multiple sources. Most of the archaeological information comes from online Scandinavian and Icelandic archaeological databases as well as Friðriksson's (2016) updated version of Kristján Eldjárn's (1956) *Kuml og haugfé* (*Pre-Christian Graves and Grave Goods*) Icelandic graves catalogue. The literary data comes from online databases as well as a motif index.

3.2.1.1. Scandinavian Archaeological Online Databases

Norway, Denmark, and Sweden each have their own public access archaeological database sets online. Iceland's archaeological record is disparate online and most of it is housed in a private database. For both Case Studies, I chose to filter the results by grave finds and the dates Undated

and the Stone Age to the Early Middle Ages. I chose grave finds and did not include possible ritual sites, as it is too difficult to distinguish actual ritual sites via the information given in the databases. I also chose these particular dates because Late Medieval sites, and later, coincide with Christianity as the norm. These results would interfere with interpretations of pagan beliefs, as either cats or quartz would indicate something other than religion, such as contamination. I allowed unknown dates if the cats or quartz are clearly associated with the original burial.

Norwegian archaeology is state-run through universities. The online archaeological database is curated under the umbrella of the *Universitetsmuseenes Samlingsportaler* (*University Museums Collection Portals*), www.unimus.no. The Collections Portals hub has Natural History and Cultural History hubs. The archaeological database is found in the Cultural History hub, under the sub-portal *Arkeologisksøk* (*Archaeology Search*), www.unimus.no/ arkeologi/forskning/index.php. Here, one types in a keyword to search.

For the Cats Case Study, I searched for both the words "katt" (Norwegian for "cat") and "felis catus" (Latin for the genus and species of domesticated cats), as the database is not consistent in how animal bones are recorded. For the Quartz Case Study, I searched for "kvarts" (Norwegian for "quartz") and "hvit stein" (Norwegian for "white stone"). For both Case Studies, I manually filtered the results by type of site and time period. I selected only sites that were burials/grave finds (gravfunn) from the Steinalder (the Stone Age) up until Middelalder (the Middle Ages), also including gravfunn with unknown dates (Udateret). For the Cats Case Study, I also accepted a fur production site, as the number of graves was so low, and the potential magical implication of cat fur.

The information given with each site are: Gjenstand (Objects/Artifacts), Materiale (Material), Fylke (County), Kommune (Municipality), Gård (Farm), Musnr. (Museum

Identification Number), and Mer Info Tekst (More Information Text). Under the Musnr. is more information about the artifact, such as dating, acquisition, and type of site. GPS coordinates are also recorded if available. Under the Mer Info Tekst is information about other artifacts also found at the site, the human remains (if any), and more information about the site itself. The amount of detail varies greatly between individual site registrations, **as they can have any or none of the following: grave type; time period; type of bones of humans and animals;** number, sex and age of humans; **unburnt bones or burnt bones (cremation); all animals present; and all artifacts present.**

Swedish archaeology is also state-run. The online archaeological database is run by the *Historiska museet* (*The Swedish History Museum*), http://mis.historiska.se/mis/sok/sok.asp. This database is, by far, the most comprehensive of all the databases accessed. There are several ways to filter searches. The searches can be filtered by Inventarienummer (Inventory Number), Fyndplatser, (Location), Föremål, (Object/Artifact), Utställda föremål (Exhibited Object/Artifact), Ben (Bone), Föremålsbilder (Object/Artifact with Pictures) and Taggar (Tags).

For the Cat Case Study, I searched under Ben (Bone), Art (Species) for both "katt" (Swedish for "cat") and "felis catus" (Latin for the genus and species of domesticated cats), as there are inconsistencies in registrations. **For the Quartz Case Study, I searched under** Föremål, (Object/Artifact) for both "kvartz" (Swedish for "quartz") and "vit stein" (Swedish for "white stone"). For both Case Studies, I was able to set the search parameters to dates of Odaterad (Undated), and Stenålder (the Stone Age) to Medeltid (the Middle Ages). I then had to manually filter out the burial finds from those results ("grf" under "Fyndkategori" (Find Category) and "grav" under "**Anläggningstyp" (Context type)).**

For both Case Studies, a lot of information comes with each result: **Invnr: Unr/Fyndnr**

(Inventory/Find Number), Lokal/Kontext (Place/Context), Sakord /art/benslag (Search Word/species/bone type) or Sakord/Typ/Del (Search Word/Type/Part), Material (Material), Antal (Total), Vikt (weight in g.), Datering (Date), and Info (Information). Under **Info > More Info,** the grave number is found (under **Anläggningsnummer (Context number))**, as well as the **site number (Fyndplats),** and **other objects found at this site (Fler objekt från samma plats)**. When selecting **Fler objekt från samma plats,** I then had to manually search each **Anläggningsnummer** to connect my find to the other objects found with it.

The amount of detailed information accompanying the results varies, as they can have any or none of the following: **grave type; time period; type of bones of humans and animals; number, sex and age of humans; unburnt bones or burnt bones (cremation); all animals present;** and **all artifacts present.**

For the Cats Case Study, I also used some articles (cited in the Appendices) as well as an important Swedish thesis by Maria Andersson (1993), called *Kattalog: En Studie av den Svenska Tamkattens Tidiga Historia* (*Cat-alogue: A Study of the Swedish Tom-Cat's Early History*).

Danish archaeology, like that of Norway and Sweden, is also state-run. The online archaeological database (www.kulturarv.dk/mussam/) is run by the by Kultur Ministeriet (the Ministry of Culture), https://slks.dk/omraader/kulturarv/kulturarvsdatabaserne/. However, this database is not user-friendly and is very difficult to navigate.

Instead of possibly misunderstanding the information in the database, I consulted Bitz-Thorsen and Gotfredsen's (2018) article "Domestic cats (Felis catus) in Denmark have increased significantly in size since the Viking Age". I also inquired with the article's writer Anne Birgitte Gotfredsen, as well as Kristian Murphey Gregersen, both from the Zoologisk Museum, Københavns Universitet (The Danish Zoological Museum, University of Copenhagen). They were

able to navigate the museum's database for me and provided information on the few finds of cats in Danish graves. I also expanded to fur production sites as well as a bog find, as the grave finds were far too low, as well as the potential magical implication of cat fur.

The information for each cat find they were able to provide were Bone Number; Site Type; Time Period; Number of Individual Cats; Type of Cat Bones; if Cut Marks were present; number, sex and age of humans present; Other Animals Present; Artifacts Present; and if it was a Cremation or not.

For the Quartz Case Study, I inquired with Special Consultant, Susanne Bjerknæs Petersen with the *Fortidsminder, Center for Kulturarv* (*Ancient monuments, Center for Cultural Heritage*). She was able to provide me Site Names; System Numbers; Site/Location Numbers; Time Periods; Grave Types; Number of Quartz frags; Stone descriptions, including Color, Shape, and Size; and Other Artifacts present for each registration.

3.2.1.2.Icelandic Archaeological Resources

Icelandic archaeology, unlike that of Norway, Sweden, and Denmark, is not state-run. There is online information about finds and sites, which is maintained by *Þjóðminjasafn Íslands* (*The National Museum of Iceland*) via *Sarpur Menningarsögulegt Gagnasafn* (*The Sarpur Cultural History Database*) (www.sarpur.is). However, this database is severely lacking in registrations and information. Most information about archaeological sites and its associated finds are found with the private archaeology companies that excavated them.

The greatest catalogue of pagan burials in Iceland is Friðriksson's (Eldjárn and Friðriksson 2016) updated version of Kristján Eldjárn's (1956) *Kuml og haugfé* (*Pre-Christian Graves and Grave Goods*). Using *Kuml og haugfé* (2016), I manually combed through the entire catalogue

looking for quartz, stones or pebbles in the inclusions sections. I did this in both the Icelandic and English versions (found in the same 2016 version), to make sure there were no discrepancies. The sites found in the catalogue provide information on location, grave contexts, animals found, information about the human skeletons and other artifacts present.

Since there have been several more excavations since 2016, I consulted the largest archaeological company, *Fornleifastofnun Íslands* (*FSÍ*) (*The Archaeology Institute of Iceland*). The artifact specialist at *FSÍ*, Guðrún Alda Gísladóttir, gave me access to the excel sheet of all registered artifacts, which she maintains. For the Quartz Case Study, I was, via the excel sheet, able to do a "finds type" search for "stein" (Icelandic for "stone") and "kvars" (Icelandic for "quartz"). After which, I was able to filter the sites by graves only and could then cross-reference the grave sites to find information about location, grave contexts, animals found, information about the human skeletons and other artifacts present. There were only a few found since 2016.

For the Cats Case Study, I consulted the head zooarchaeologist of Icelandic faunal remains, Dr. Thomas McGovern. Cats are rarely found in pagan Viking Age Iceland and hence the only ones found ended up on his desk in New York City. Through him, I was able to obtain the few sites that contain cats, only one of which is related to a pagan grave field. The rest are potential fur production sites with ritual implications, and one find associated with a regular settlement. The information obtained is Site Name; Site Location; Type of Site; Number of Individual Cats; Types of Cat Bones; and whether Cut Marks were present.

3.2.1.3. Literature Databases and Motif Index

The first step in combing through all of the Icelandic literature for mentions of cats and quartz (or special stones), was to use *The Motif Index of Early Icelandic Literature* (Boberg 1966)

found at the *Stofnun Árna Magnússonar* (*SAM*) (*The Árni Magnússon Institute for Icelandic Studies*) in Reykjavik. *SAM* is an independent academic research institute which houses the original Icelandic manuscripts in its vaults.

The *Motif Index* was crucial in finding references to cats and special stones in all available literature, from the earliest medieval texts up until modern folklore. The sections I used were (A), which contains references for Mythology and Cosmology (including creation of land features); section (B), which contains references for animals; and section (D), which contains references for magic and magic objects. I also chose to exclude the Romantic/Chivalric Sagas (*riddarasögur*) and the Saints'/Holy People's Sagas (*heilagra manna sögur*), from the results because these sagas are borrowed from non-Scandinavian sources.

Next was to find both Icelandic copies and English translations. For consistency's sake, I used Icelandic copies and English translations that mostly use the same manuscripts. When I felt the English translation was not suitable, I used another version, and this is cited in the Appendices.

For the *Poetic Edda*, I used Carolyne Larrington's (2008) English translation and Ólafur Briem's (1976) Icelandic copy, as both use *Codex Regius* (GKS 2365 4to) (AD 1260 - 1280) as their main source. For the *Prose Edda*, I used Faulkes' (2007) English translation and Faulkes' (2005) Icelandic copy, as they both mainly use *Codex Regius* (GKS 2367 4to).

For the Sagas, I had to use many different sources, as there are many categories they are organized into. Most of the Sagas are found on their own and therefore require multiple sources. The Saga Database (https://sagadb.org/), run by Sveinbjörn Þórðarson, has been extremely helpful in finding both English translations as well as Icelandic copies. When English translations could not be found, I did simple translations as well as did Kolbrún Kolbeinsdóttir. See the Appendices for individual translations and copies.

Information about the original manuscripts was found at www.handrit.is, which is the digital database of Icelandic and other Nordic manuscripts. Handrit.is is curated by *Landsbókasafn Íslands - Háskólabókasafn* (*The National Library of Iceland - University of Iceland Library*).

3.2.2. Data Sets

3.2.2.1. Organization

The data sets were organized into individual spread sheets: Cats in Scandinavian/Icelandic graves; Cats in Literature; Quartz/White Stones in Scandinavian/Icelandic graves; and Quartz/White Stones in Literature. Each of these have their own sub-sheets. The archaeology sheets are subcategorized by country and the literature sheets are subcategorized by *Eddas*, *Sagas*, and Others.

The **cat archaeological datasets** are arranged and categorized by the following:

- All of the archaeological sites are organized by individual countries: Iceland, Sweden, Norway, and Denmark
    - Each of these contain the following categories: **Site Name; Site Code; Bone Number** (except Iceland & Norway)**; Site Type; Inhumation/Cremation; Time Period; # of Cats; Type of Cat Bones; Cut Marks; # of Humans; F/M Humans; Age of Humans; Other Animals Present; Artifacts Present; Notes; and References**
    - Denmark has Bone Numbers and no Site Codes
    - Sweden has both Bone Numbers and Site Codes
    - Iceland has no Site Codes
- **The Site Names** are arranged differently according to how each country records them:
    - Iceland's Site Names are arranged as such: Farm Name/Street Name; County/City
    - Sweden's Site Codes are arranged as such: Province; Parish; Farm Name; Grave Number
    - Norway's Site Codes are arranged as such: County; Municipality; Farm Name; Grave Number
    - Denmark's Site Codes are arranged as such: City; Municipality; Region
- **The Site and Bone Codes** are references numbers for the individual databases
- **The Site Types** also include Grave Types, which include:

    - mounds; cairns; flat-marked graves; stone settings; boat graves; passage graves; grave fields; and stone cists
    - If it is just recorded as "grave", then specific information about the grave type is unavailable
- **The Cremation/Inhumation** records if the grave is a cremation or inhumation when applicable and available
- **The Time Periods** are recorded by Ages/Eras and dates are included whenever available
    - Undated sites are recorded as such in this category
- **The # of Cats** means the number of individual cats identified
- **The Type of Cat** Bones records the osteological information (in Latin) on the cat remains, if available
- **The Cut Marks** records if the cat bones have cut marks on them and where, if available
- **The # of Humans** records the number of individual humans associated with the grave, if available
- **The F/M Humans** records if the human remains associated with the grave are Female (F) or Male (M), if available
    - If multiple individual humans present, then it is recorded as such: 3M = 3 males, 3F = 3 Females; 3U = 3 Unidentified
- **The Age of Humans** records the age of the human remains associated with the grave, if available
    - If multiple individual humans present, then it is recorded as such: 18-44(1F, 2M, 1U) = there are 4 individual humans between the ages of 18-44, 1 of which is a female, 2 of which are males, and 1 of which is unidentified
- **The Other Animals Present** records if there are any other animals associated with the grave, if available
    - The number of individual animals is not recorded, only if their species is present
- **The Artifacts Present** records artifacts by type and material, if available
    - Numbers of individual artifacts are given if available
- **The Notes** provide other additional information available
- **The References** provide the sources from which the information can be found

The **quartz and white stones archaeological datasets** are arranged and categorized by the following:

- All the archaeological sites are organized by individual countries: Iceland, Sweden, Norway, and Denmark
    - Each of these contain the following categories: **Site Name; Artifact/System #; Site Code; Time Period; Grave Type, Inhumation/Cremation; Pebble Count; Pebble Description; Stone Type; Color; Shape; Size; Weight; M/F Human(s); Age of Human(s); Animals Present; Other Artifacts Present; Notes; References**
    - Iceland does not have Site Codes
    - Iceland includes detailed stone analyses by Solveig Beck

    - Sweden does not have Shapes
    - Denmark does not have Weights or Animals Present
- **The Site Names** are arranged differently according to how each country records them:
    - Iceland's Site Codes are arranged as such: Farm Name/Street Name; County/City; Grave or Trench Number
    - Sweden's Site Codes are arranged as such: Province; Parish; Farm Name; Grave Number
    - Norway's Site Codes are arranged as such: County; Municipality; Farm Name; Grave Number
    - Denmark's Site Codes are arranged as such: City; Municipality; Region
- **The Artifact/System #** refers to the numbers for the individual databases
- **The Site Codes** are reference numbers for the individual databases
- **The Time Periods** are recorded by Ages/Eras and dates are included whenever available
    - Undated sites are recorded as such in this category
- **The Grave Types** include:
    - mounds; cairns; flat-marked graves; stone settings; boat graves; passage graves; grave fields; and stone cists
    - If it is just recorded as "grave", then specific information about the grave type is unavailable
- **The Cremation/Inhumation** records if the grave is a cremation or inhumation when available
- **The Pebble Count** records the number of stones associated with each grave
- **The Pebble Description** is the description provided by the individual databases, which includes
    - If it has been worked and/or polished
    - "Avslag" and "avfall" = "tool making refuse" in Norwegian and Swedish
    - Texture, when available
    - "Cuddle Stone" = Kosestein in "Norwegian"
- **The Stone Type** distinguishes between quartz, quartzite and other minerals the stone is, if known
- **The Color, Shape, Size,** and **Weight** are provided by the individual databases, when available
    - Only white, clear, or yellowish colors were included
    - Size is measured in Centimeters
    - Weight is measured in Grams; weight is total number of pieces
- **The # of Humans** records the number of individual humans associated with the grave, if available
- **The F/M Humans** records if the human remains associated with the grave are Female (F) or Male (M), if available
    - If multiple individual humans present, then it is recorded as such: 3M = 3 males, 3F = 3 Females; 3U = 3 Unidentified
- **The Age of Humans** records the age of the human remains associated with the grave, if available

    - If multiple individual humans present, then it is recorded as such: 18-44(1F, 2M, 1U) = there are 4 individual humans between the ages of 18-44, 1 of which is a female, 2 of which are males, and 1 of which is unidentified
- **The Animals Present** records if there are any other animals associated with the grave, if available
    - The number of individual animals is not recorded, only if their species is present
- **The Other Artifacts** Present records artifacts by type and material, if available
    - Numbers of individual artifacts are given if available
- **The Notes** provide other additional information available
- **The References** provide the sources from which the information can be found

The **Literature Datasets** are arranged and categorized by the following:

- **The Literature Databases** are firstly organized by Cats and by Special Stones
    - The Special Stones are either white, clear, or do not give a specific color; all other colors are not included
- Both Cats and Special Stones are then arranged by **Sagas, Eddas,** and **Others**
- Under the Sagas, Eddas, and Others, the literary references are organized with **Title; Author; Date Written; Chapter; Original Manuscript; Context; Full Quotes English; Full Quotes Icelandic**
    - **The Title** of the literary reference is given first in Icelandic and then in English
    - **The Author** refers to the original author of the work, if known
    - **The Date Written** refers to the original date the work was written, if known. This does not include later copies, even if the later copies are the only source still available.
    - **The Chapter** refers to the chapter number (or Stanza number for *Poetic Edda*) where the reference to cats or special stones is located
    - **The Original Manuscript** records which manuscript the Icelandic copies and English translations use. These include the names, accession/shelf numbers, and dates for the manuscripts.
    - **The Context** (for cats or quartz) gives a brief description of the specific reference to either cats or special stones
    - **The Full Quotes English** provides the full quoted reference for either cats or special stones in English
    - **Full Quotes Icelandic** provides the full quoted reference for either cats or special stones in Icelandic

3.2.2.2. Analyses

The following details how the **cats** and **quartz datasets** were analyzed and organized into bar graphs. The bar graphs chosen are the ones best thought to be representative. If the data set was too small, then it was excluded from being represented in a bar graph.

- **The Grave Types Bar Graphs** for both cats and special stones were categorized by:
    - Mound, Cairn, Boat, Flat, Stone Setting, and Unknown (Norway, Quartz)
    - Mound, Cairn, Stone setting, Unknown, Death House (Sweden, Quartz)
    - Unknown, Cairn, Stone Cist, Mound, Stone setting, Other (Sweden, Cats)
- **The Cremation vs Inhumation Bar Graphs** for both cats and special stones were categorized by:
    - Cremation, Inhumation, Unknown (Norway, Quartz)
    - Probable Cremation (includes burnt bones not specified as cremations), Inhumations, Mixed, and Unknown (Sweden, Quartz)
    - Cremation, Inhumation, Mixed/Unknown (Sweden, Cats)
- **The Time Period Bar Graphs** for both cats and special stones were categorized by:
    - Stone Age, Bronze Age, Iron Age, Medieval, Unknown, Other (Norway, Quartz)
    - Stone Age, Bronze Age, Iron Age, Medieval (Sweden, Quartz)
    - Stone Age, Bronze Age, Iron Age, Medieval, Mixed, Undated (Sweden, Cats)
    - Roman Iron Age, Migration Age, Vendel Age, Viking Age, Younger Iron Age (Sweden, Cats)
- **The Artifacts** for both cats and special stones are given only 1 point for whichever category type they fall under, despite if there are multiples (For example: 5 bronze axes = 1 point for bronze axes)
    - For the special stones dataset, these points were added up and a **percentage (%)** was given to the quartz/special stones of the total artifact assemblage for each grave (not represented in a bar graph)
    - The Artifacts were firstly categorized by **material** (iron, bronze, silver & gold together, lead, glass, bone, stone, flint, ceramic, organic, textiles)
        - These have their own bar graphs
        - Bronze & copper/alloy are combined under Bronze as there are too few of these to each have their own category
    - Some items of the same material were grouped together, such as iron nails, iron frags, & iron objects. This is because these objects are more likely to survive as archaeological evidence than others and are usually the most abundant of finds.
        - For example: 20 iron nails in a single grave = 1 point for miscellaneous iron
    - The Artifacts were then sub-categorized by specific **artifact type** within each material (sword, spindle whorl, vessel, etc.)
        - These have their own bar graphs
    - The Artifacts were then categorized into **broader categories** (fittings, jewelry, tools, weaponry, silver/gold, flint [not included in tools], combs, glass vessels, whetstones, ceramics, textiles, food & organic objects, lead weight and miscellaneous)
        - These have their own bar graphs
    - Artifacts excluded were charcoal, slag, burnt clay, & resin because they are byproducts
    - If the artifact is a composite object, then it was counted once in each of the material categories

        - For example: an iron knife with a wooden handle was counted as 1 iron and 1 wood/organic
    - Flint fragments are in their own category instead of being including in tools because that is how I categorized the quartz; flint fragments are not the same as useful tools
    - All numbers were rounded up from .5
    - Excluded from the quartz/special stone counts were: beads and quartz tools, such as whetstones or strike-a-lites
    - For the quartz/special stones, only clear, white, and yellowish variations of stones were included
        - Excluded were dark/black quartz
- **The Animal Species,** for both the cats and special stones datasets, were given 1 point for whichever species category they fall under, despite if there are multiples
    - For example, 5 dogs in a single grave = 1 point for dogs
    - For the cats dataset, these points were added up and a **percentage (%)** was given to the cats of the total faunal assemblage for each grave (not represented in a bar graph)
    - For the cats dataset, the skeletal material was categorized by **individual bone** (pelvis, femur, cranium, etc.) given its own bar graph
        - The same point system was applied
    - For the cats dataset, the skeletal material was then sub-categorized by **bone type** according to zooarchaeological standards:
        - Feet; Lower Hindlimb; Lower Forelimb; Hindquarter; Vertebrae and Ribs; Forequarter; Mandible; All Cranial; Long Bone Fragments; and Complete Skeleton
    - For both datasets, the individual species was given its own bar graph; the species were categorized as such:
        - Pig; Cow; Horse; Dog; Sheep/Goat; Bear; Fish/Shellfish; Chicken; Goose; Other Bird; Miscellaneous; Unidentified; and Only Cat (only for the cat dataset)

3.2.3. aDNA and Mineralogy

The aDNA analyses of the cat remains from Iceland were performed by Dr. Eva-Maria Geigl (primary), Jeanne Mattei, and Dr. Thierry Grange of the *Institut Jacques Monod* (IJM), *UMR 7592, CNRS, Université de Paris, France*. The following is their methodology as recorded in their "Paleogenetic analysis of cat bones from the Viking sites of Hofstaðir and Ingiriðarstaðir: preliminary report" (2019, unpublished):

Project strategy
It is the aim of the present collaborative study between Brenda Prehal and the Epigenome and Paleogenome team of the Institut Jacques Monod (IJM) to better characterize genetically cats in archeological contexts in Iceland belonging to the Viking culture. Therefore, the IJM devised a new experimental approach to obtain mitochondrial and phenotypic information through DNA analysis of cat bones from the Icelandic Viking sites of Hofstadir and Ingridarstadir. In particular, a new capture approach was developed to enrich for mitochondrial DNA on one hand and specific genes associated with the coat color as well as the texture of the coat on the other (unpublished).

Material and Methods
Eight cat bones have been subject to genetic analysis. Small parts of the diaphysis of the long bones were sawed, cleaned and either ground to fine powder in a freezer mill or decalcified entirely. In both cases, powder or bone pieces were decalcified to extract DNA. The DNA extracts were subsequently purified, and DNA libraries constructed (Gorgé et al., 2016). The DNA libraries were sequenced on a MiSeq plateform at the Institut Jacques Monod to both estimate the proportion of endogenous DNA in the DNA extracts and to authenticate the ancient DNA. The DNA extracts were then enriched for both mitochondrial DNA and specific nuclear markers associated to the coat using the above mentioned newly developed capture approach based on an approach formerly developed for other species (Massilani et al., 2016). Finally, the samples that contained sufficient endogenous DNA were subject to sequencing on a NextSeq platform in order to obtain a higher number of sequences.

For the results of the aDNA analyses, refer to **Chapter 5**.

The Icelandic quartz/special stone material was analyzed by Sólveig Beck of *Fornleifastofnun Íslands* (FSÍ) (the *Archaeology Institute of Iceland*). Several of the stones were located at the storage facilities of the *Þjóðminjasafn Íslands* (the *National Museum of Iceland*). Thanks to Ármann Guðmundsson at *Þjóðminjasafn*, Sólveig and I went to the storage facilities where she was able to analyze the ones available. Unfortunately, some have been lost over time and some are currently on display at the museum (see **Appendix H**) for which are missing or on display). The rest of the stone material is housed at FSÍ, where she analyzed them.

Beck’s methodology is as follows: “The finds' rock ypes were identified through superficial analyses of their general mineralogical properties with the aid of a loupe and/or a stereoscope. No chemical analysis took place” (Beck 2020. Personal Comm.).

CHAPTER FOUR

SOURCE CRITICISM

I have chosen to treat the source criticism aspect of my methodology as its own chapter because it requires in depth discussion. As this dissertation aims to validate the use of Icelandic literature in Icelandic archaeological interpretation, it is necessary to explore its pros and cons.

For decades, there has been a strict dichotomy in place in regard to the Icelandic literary corpus' role in Icelandic archaeology. Most archaeologists working in Iceland are on the side of being extremely wary, if not completely skeptical, in the use of medieval literature and post-medieval folklore in archaeological interpretations. They typically avoid the literature altogether. As none of them are trained to be critical of the works, their caution is understandable. The literature is riddled with problems and Icelandic archaeology's history of "lore hunting" has created trepidation. Most archaeologists do not want to be associated with the unscientific manner in which past antiquarians searched to either substantiate or discount sagas with archaeology. Unfortunately, this has led to an altogether abandonment.

On the other side of the coin, there are a handful of archaeologists who "…continue under the traditional influence of the literary accounts," (Friðriksson and Vésteinsson 2003:157) and mostly use the literature in the same ways the antiquarians have done in the past. This is also a significant problem. There has yet to be established a way for archaeologists working in Iceland to use the literary corpus that does not require one to be a literary scholar and yet does not follow antiquated and unscientific trends. By following some simple rules set forth by scholars outside of Iceland, it is my belief that Icelandic archaeologists can use the literary corpus in a meaningful and productive way.

4.1. The Problems of Literary Sources in Archaeological Interpretation

The main problem scholars and archaeologists have with using the medieval literature, especially Snorri's writings, is that they were written several decades after Iceland's conversion to Christianity. Therefore, there are no contemporary writings from when people were still practicing pagans, at least publicly. Fully Christianized medieval Icelandic writers tried to understand their pagan ancestors by fitting them into the organized Christian world that they knew. The question then is, did medieval Icelanders write about a purely imagined pagan religion or do the texts have some elements based in historical reality? (Andrén 2007:106)

Some scholars were very strict in their position about the unreliability of the medieval sources. Sophus Bugge (1867) stated that the *Poetic Edda* and earlier sagas were of mostly Christian creation and came to Scandinavia by way of England. Lee M. Hollander (1927:105) agreed and said to take precaution in dating the poems and that "…the nimbus of antiquity must be dispelled from poems that are, supposedly, "pagan in spirit." More extreme in this vein, Rudolf Simek (2006:380) believed "…the use of these mythographical, high medieval texts as source material for a pre-Christian, pre-medieval Scandinavian religion certainly is abuse."

Prominent Icelandic archaeologists Adolf Friðriksson and Orri Vésteinsson (2003:141) have also said of the Icelandic medieval literature, that "…historical evidence of this type is of little use in scholarly enquiry as it cannot be identified with any certainty" and that "It is necessary to abandon chasing the lore and to start excavations intended to answer basic questions" (Friðriksson and Vésteinsson 2003:158). Most Icelandic archaeologists are of this viewpoint.

According to Thomas DuBois (2006:74), the medieval Christian viewpoint had two opposing tendencies when writing about pagan practices: one was to assume Norse religion

worked similarly to Christianity and the other to accentuate the clear contradictions to Christian norms . Obviously, there is a huge problem with both approaches.

Pagan Norse religion was not structurally like Christianity. Although it is often described by the sagas and Snorri's *Edda* as very organized with a hierarchal structure, this kind of dogmatic organization was likely not how the Norse pagan religion functioned. Rather, it was likely to have been unsystematic with different traditions varying by place and time. As many different versions of traditions and myths likely existed, Snorri and others could not have been exhaustive in the coverage of pagan beliefs and practices (Karlsson 2000:19; Gräslund 2000:56).

Snorri also "chose between variants," as well as "omitted some [stories] and combined others…" (Clunies Ross 1994:32-33). Knowledge about Norse paganism will therefore always remain partial and incomplete. We will never fully understand this religion also "…because of our limited powers to understand an ancient culture's ways of constructing meanings in narratives as in other processes" (ibid 26). Snorri, and other writers, also likely modified the mythology to some degree to incorporate Christian themes as a form of familiarity for the readers (Faulkes 2005:xxvii).

The other approach used by medieval authors was the element of sensationalism. This was done to clearly contradict Christianity and likely exaggerated pagan practices for dramatic effect. For example, the story of the ritual execution of the "blood eagle" is truly mesmerizing and one of the most repeated, but its practicality is wanting (Frank 1984). This type of exaggeration was a way to establish the barbaric heathens as separate from the civilized Christians. This style of writing, along with portraying pagans as being tricked by demons, allowed the authors to get away with disseminating pagan myth (Ellis Davidson 1990:26), known as apologiae (O'Connor 2005:103). Euhemerism was also used for this purpose. This is the route that Snorri took when he

said that the old gods were just outstanding people who were misunderstood as divine by his "primitive" ancestors (Clunies Ross 2006:412).

The other major problem with the literature is that scholars do not know the motivations and agendas of the writers (Clunies Ross 1994:33). The medieval writers never documented their reasons for writing the mythology and descriptions of pagan religious practice down. Scholars tend to agree that, despite incorporating some Christian elements, Snorri, at least, did not seem to have had a religious agenda. The typical medieval Christian allegory found in other European myths is not present in the Eddas. Scholars believe it likely that Snorri rather preserved the mythology out of a scholarly and artistic motive (Faulkes 2005:xxvi-xxvii; Simek 2006:380).

However, Snorri, and others, could have had political motivation. Some scholars believe Snorri's agenda was to make Iceland relevant to the rest of medieval Europe by creating an epic mythology similar in scale to classical mythology (Clunies Ross 2006:412-413). Others suggest that the mythology was written, "…in the case of *Rígsthula,* for a political statement in favour of a god-sent royal power, in the case of *Skírnismál* possible for the political setup of Norway under a common king for both Norwegians and Sami" (Simek 2006:380).

Christian bias and possible motives set aside, there are also logistical problems with the medieval sources. Bell and Ogilvie (1978:332; 336) have compiled a list of complications with translators/transcribers/compilers. Sometimes they: omit original transcriptions and provide only translations; only paraphrase or summarize which can "distort or truncate the original;" neglect to name their sources; "…combine material from two or more sources into a single summary, without identifying the source of each individual item of information;" contain transcription errors; or misunderstand an account or complicate it with terminology of their own time period.

Neil Price (2019:83) elaborates, "The texts thus contain a spectrum of information from

different times, collected and probably modified when the saga was formally composed, and then altering again through the further transmission of the work in different versions and the chance process by which certain manuscripts have survived while others have been lost." Each generation reading and translating/transcribing/compiling the texts also had their own "fashion" of interpretation according to the preferences of that time period. Subsequently, the themes that are emphasized may not reflect the original pagan worldview but rather that of the generation who interacted with the text. (Ellis Davidson 1993:144)

Bell and Ogilvie (1978:334;348) have also compiled a list of problems with the original sources themselves. Sometimes there is a problem with disentangling fact from fiction. For example, sagas "…contain a mixture of historical description, both reliable and unreliable, together with a deal of fictitious material…truth is sometimes altered in the interests of the narrative." How does one know what is reliable and what is not? Sometimes, manuscripts are forgeries, such as fabricated "ancient lineages for rich families." And sometimes Icelandic writers, although mostly trying to be accurate, would supplement with imagination when there was insufficient information.

Ogilvie (1984:110) makes a point that "…generally speaking, the older the source, the greater the likelihood of encountering difficulties in evaluation. Thus, many medieval Icelandic works are marred by numerous textual problems caused by variations and lacunae in the manuscripts which have survived to the present day…" Also, some aspects of interpreting and assigning the ages of the original texts in the first place can be purely arbitrary (Taylor 1993:123).

Neil Price (2019:82) brings up another interesting point, which is rarely brought to attention: before the mythology was even put to parchment, did the Norse pagans actually believe their own oral traditions as truth? "Put simply, did Viking Age people *believe* their (hi)stories? How much trust did they place in their veracity, and how important was this to them?" Were their

myths purely for transmitting rules and explanations or did they truly believe, at least to some extent, in a war between gods and giants?

This is not something we can gather from the texts but is worth thinking about. Archaeologically speaking, religious ritual, and therefore divine beings, *were* important to the Norse pagans. The literature, however, does not provide much information about how humans interacted with these deities in daily life. Rather, the literature is more focused on the gods' own problems. (Andrén 2007; Clunies Ross 2002:106) Why this is the case is unknown. Perhaps Christian writers were afraid of accidentally showing people how to invoke the old gods or encourage such behavior. Or perhaps they simply did not remember all the old customs.

Along with this problem is the fact that the Viking Age Norse had outside influences, which included religious ideology. Viking Age (and earlier) Scandinavians were well traveled and brought some of these religious stories home with them (Staecker 2006:363). "The Scandinavians were such gifted story-tellers that they could introduce foreign plots and motifs into their sagas very skillfully, placing them in a convincing native setting, so that they seem like genuine Scandinavian traditions (Strömbäck 1971)" (Ellis Davidson 1993:158). Besides South-eastern European and Mediterranean cultures, there was also an influence from Saami and other Finno-Ugrian cultures, as well (Andrén 2007:106; Price 2019).

Finally, when we get into the fine detail of using the texts in interpreting archaeology, we come across the problem of seeing only the written myth in what comes out of the ground. One must be careful not to insert meaning from the texts that just is not there into an object. "Using mythology as a frame of reference, archaeology consequently tends to adopt the self-contained perspective of the written sources…limited to the identification and classification of the motifs in correlation with the written sources" (Dobat 2006:184). Even if a myth is present in an artifact,

there are many more cultural layers to that artifact that need examination. As such, frequently the artifacts themselves take a back seat to their role as confirmations of a myth (Andrén 2007:106-107).

Nevertheless, assuming one has found a seemingly accurate meaning from text in an artifact. Can that meaning then be transferred to similar artifacts found in different places and times? Does an artifact carry the same meaning in Iceland, Norway, Sweden and Denmark? Does this meaning also continue (mostly) unchanged throughout time as well, even though the artifact evolves over time? Does the artifact have to be a certain version to keep that meaning or do variations demarcate different variations of meaning or myth? Or are these meanings and myths in artifacts fluid over time and place? (Bradley 2006:17)

At the beginning of this chapter, I mentioned the handful of archaeologists working in Iceland "on the other side of the coin," as essentially "lore hunters." Now that the pitfalls have been laid out, I will now give examples of what is inappropriate usage of Icelandic texts in Icelandic archaeology.

Bjarni Einarsson's (2008) "Blót Houses in Viking Age Farmstead Cult Practices - New Findings From South-Eastern Iceland" attempts to prove an archaeological site in Iceland as a cult site by using the medieval literary corpus, as well as contemporary outside sources. There is a lot wanting in source criticism, but the desire to discuss it is a stepping-stone.

The prime example of inappropriate usage of medieval literature in Icelandic archaeological interpretation, however, are the works of Jesse Byock. The first example is his 1993 "Skull and Bones in *Egils saga*: A Viking, A Grave, and Paget's Disease." In this article, Byock tries to say that the fictional namesake character of *Egil saga Skallagrimssonar* was in fact a real person. Not only was he a real person, but in fact had Paget's disease. He gets all this information

from the Icelandic literature. This, of course, is riddled with problems.

First and foremost, only one reference is cited: *Egil saga Skallagrimssonar*. Just a single account is nowhere near enough to make any of the statements made in this article. Second, this reference comes from the epilogue of the saga and is an after-story within it. Byock (1993:25) is thus relying on hearsay within a saga: “People say that Thórdís had Egill's bones moved to the church, and this is the evidence… (chap. 86).” *Family Sagas*, such as *Egils*, are known to be exaggerations of the Viking Age, so to believe secondhand accounts exactly as they are presented is akin to reading the Bible literally.

Third, this is also an account about a priest named Skapti who supposedly described moving Egil’s bones from the old Church to the new one. “Although it is not absolutely certain that the bones described are Egill's, the probability is high that they are” (Byock 1993:26). This is a shocking statement. Bycok says that Egil had to be real because Skapti was supposedly real (according to the Heroic Saga *Þorgils saga ok Hafliða* and a manuscript of a list of priests in Iceland dated to the 12th century). This is a circular argument and very misleading. All the medieval texts are a mix of reality and fiction, so to say absolutely anyone was real, let alone a notoriously fictional character is farcical.

Byock also claims that the priest Skapti performed an “archaeological investigation of the bones” and this, along with the other scanty evidence supposedly suggests that *Egils saga* actually contains a lot of historical facts (Byock 1993:48). The suggestion that Skapti was an archaeologist in the middle ages is ludicrous. A medieval Icelandic priest would have had no idea how to conduct a proper archaeological investigation, let alone fully understand the social dynamics at play with such an undertaking. Even if we take the story to be true, with no proper recording methods used, we have absolutely no idea who Skapti dug up or exactly where from. Skapti himself certainly

would not have even seen himself as an archaeologist as they did not yet exist, and this kind of modern science would have been completely alien.

Lastly, Byock (1993:48) concludes the article by saying he intends to find the real Egil's bones at some point in the future. This is the opposite of how to conduct a proper archaeological investigation. One does not start with a theory and then go dig holes in the ground. If this were the case, everyone would always find what they are looking for. This is irresponsible for two reasons. First, it presents to the public that this is how all proper archaeological investigations are performed. Second, it is publicity bait. These kinds of "investigations" are what get sensationalized in the news media and are not fair to the public who have no proper context. As Lois Bragg (2004) kindly summarized:

> *But there is no reason for modern readers to suppose that these aberrant bones, if indeed such a discovery really happened, belonged to the historical Egil. Byock's assumption that they did, and that Egil suffered from Paget's Disease, is fascinating for the light it sheds on present-day readers' natural tendency to retroject our medical perspective onto mythic figures and stories.* Bragg 2004:191

The second example is Byock's (et al. 2005:198) "A Viking-age Valley in Iceland: The Mosfell Archaeological Project." Byock states that his Mosfell Valley project is interdisciplinary and was "conceived in terms of treating methodological issues surrounding excavations within a quasi-historical context." This is a setup for problems right from the very start. Quasi-anything in scientific research is in fact, not scientific by definition.

Along with archaeology, Byock looks to medieval literature to deliver a dynamic look into the Viking Age Mosfell Valley region of Iceland. However, while ambitious, it leaves too much room for error. Byock's paper tries to connect several archaeological features to saga accounts. Unfortunately, he argues that the archaeology confirms the sagas as opposed to the sagas shedding

some light on the archaeology. This is exactly why most archaeologists avoid the literature, as this is pure antiquarian "lore hunting."

The main problem is that the characters in the sagas who supposedly lived in Mosfell Valley in the Viking Age take the main stage in the presentation of the valley's archaeological history. "Much is to be gained by gathering these medieval passages about the Mosfell region into an analytic study within the context of early Iceland's (or for that matter the Viking Age's) historical, archeological and socio-economic development. They tell us not only about the lives and the regional connections of characters such as Thord Skeggi, Ingolf Arnason, Grim Svertingsson, Egil Skallagrimsson, Önund from Mosfell and his son Hrafn, but also about Thordis Egilsdottir, Hallfred, Illugi the Black and other prominent individuals" (Byock et al. 2005:200). This wording is very problematic in that it leads lay readers into a trap that suggests the characters were in fact real people. What should be said is something along the lines of looking to learn about the lives of wealthy residents who could have led similar lives to those of the characters he listed.

In this same vein, Byock tries to legitimate this theoretical approach by also looking to the so-called 'small people' of the area, meaning everyone else: "…the type of men and women who usually go unmentioned in European medieval narratives, but who were the ones who utilized most of the archaeological finds that we come across" (Byock et al. 2005:200). By using this language, Byock looks to appeal to those who think they want to see "true scientific research," and to the untrained, it seems he has done so. However, Icelandic archaeology's history with using the sagas for "lore hunting" makes this impossible.

The Icelandic public, including the press, still want to connect the sagas to the archaeology in the way antiquarianism had done before. This project is a way for the public to have this desire granted by the supposed sanctification of seemingly modern scientific methods. In my opinion,

this is very irresponsible, or downright deceptive, depending on one's level of cynicism.

The main example given is the medieval church structure and its cemetery found in the area. Byock claims that radiocarbon dates, structural features of the church, and "indistinctly evident" grave shafts confirm that this IS the conversion-age church that is mentioned in *Egil's saga*. He even goes so far as to say that the archaeology confirms that Grim Svertingsson, someone "whom until now, we have only had written documentation" about, built this church and grave field (Byock et al. 2005:217-218).

Shaky archaeological evidence, such as "indistinctly evident" grave shafts (Byock et al. 2005:210), and zero source criticism put aside, as such, this would mean that this very church cemetery would be the location where the infamous pagan character of Egil Skallagrimsson would have been reburied (*ibid.* 208). Hence, Byock presents the possibility of Egil's real remains being present in the cemetery. It appears to me this is an attempt to make the site more important for tourism, rather than shedding any real insight into the medieval practice of reburying pagans in Christian cemeteries. The only thing one can responsibly say here is that the sagas and the archaeology both confirm that private churches and grave fields were used in conversion-era Iceland.

The third work of Byock's that I would like to briefly mention is one produced together with Jon Erland and Davide Zori entitled, "Egill's Grave? Archaeology and Egils Saga at Kirkjuhóll, Hrísbrú." Byock's older works could be attributed to the earlier days of an academic seeking to play with the archaeological paradigms in a stagnated location. However, this continued into an article in 2014 and can no longer be explained away with an early career. To summarize, this article assumes that Egil was a real person without any kind of discussion and *Egils saga* is treated as an accurate historical account (Erland et al. 2014:45,52).

Again, this "archaeological investigation" was conducted with the theory first and then the holes. Any archaeological data that did not match his theory was explained away. Not only this, but the archaeologists excavated out of context and hence any information is contaminated. Byock also takes erroneous finds and calls them evidence, such as supposed human bone fragments that were found after digging through a cultivation layer (Erland et al. 2014).

The major problem with Jesse Byock's work with the *Sagas* and the archaeology is that he has such a large and international audience. The *Skull and Bones* article is all over the news media as fact. He receives a lot of publicity and sensationalizes his work. As I said earlier, this is unfair to the public who do not have any context for what they are reading.

With these examples, it is no wonder most archaeologists working in Iceland are so opposed to using the literary sources in any capacity in their interpretations. This is an oversight, as well, as many artifacts deemed insignificant may have actually had some importance as seen in the texts.

However, even if archaeologists did want to employ the texts, there is no money available from Icelandic sources for this kind of research. Unlike Scandinavia, the Icelandic government does not allocate enough funding for sufficient archaeological research. This is particularly sad since Iceland has remarkable preservation, especially compared to Norway. The small amount of money that *is* allotted to archaeological research is almost always prioritized towards the hard sciences that have dominated Icelandic archaeology for decades now.

Commercial archaeology is a problem for research as well. It is privatized in Iceland, unlike Norway, for example, that designates state-run universities for this. The economic market fluctuation in Iceland is so variable that maintaining fulltime archaeologists is very hard. The ones who can make it a fulltime job are few, which puts businesses' agendas as the priority over cultural

history. This in turn creates huge backlogs of material and data. Outside funding, hence, is extremely important to Icelandic archaeological research. But that is another dissertation altogether.

4.2. The Benefits of Literary Sources in Archaeological Interpretation

Although there are many hazards and bad examples of using Icelandic written sources in interpreting Icelandic archaeology, I do believe the benefits are worth the trouble. As Astrid Ogilvie (1984) has pointed out, "*Advantages* of documentary sources are that they can provide accurate and detailed information and no elaborate statistical techniques are required to extract this. Furthermore, in places such as Iceland, where the use of other indirect data, such as tree-rings, is difficult or impossible, they are invaluable" (134). For example, we can study past climates, environments, and ecology with the aid of the medieval Icelandic literature (Ogilvie and Jónsson 2001; Frei et al. 2015; Ogilvie 2020), therefore religious beliefs and practices could be as well, if the same precautions (plus a few more) are employed.

Archaeologists working outside of Iceland have been the ones to utilize the literature in comprehensive ways, especially in Sweden. They are quite aware of the problems they face and usually attack them head on. I think Anders Andrén (2007) said it best: "It is fully possible to make an archaeological study of pre-Christian religion in Scandinavia without any consideration of the Icelandic literature. However, such a study would lose fundamental references to a partly non-Christian interpretative framework. Besides, the Icelandic texts exist irrespective of whether one uses them or not, and they will always give a pre-understanding of this particular field of research" (106).

Although the main problem scholars face is the reliability of the Icelandic sources, we have to work with what we have available. Old Norse religion scholar Eldar Heide (2014: 163-164) has

said that our level of strictness with the source material reliability should depend on what other alternatives we have. He points out that we can either give up entirely, which some cases merit such, or we can try to supplement with problematic sources. The point is that demanding absolute certainty about a long-gone religion is a fool's errand. If scholars, including archaeologists, were to only rely on "certainty" in interpretation, hardly any questions would ever be asked. The inclusion of data from an unreliable source can create contradictions of accounts of events from different sources, but "failure to recognize this leads some writers to exaggerate the unreliability of contemporary medieval material" (Bell and Ogilvie 1978:342).

With that in mind, we can delve into the benefits after getting over the obstacle of the Christian bias of the writers. What is also important to note about Snorri is that he was closer in time to the practice of Norse religion and remembrance of Norse mythology than scholars today. He must have also known a lot more about it than what he managed to write down. As modern-day scholars, "We do not have that privilege" (Clunies Ross 1994:32-33), and we must take that into consideration.

There are several reasons to believe that at least parts of the Icelandic literature were correct about Norse pagan religion and rituals and are not just purely Christian constructs, especially the older Eddaic poems (Nerman 1931:63), such as *Völuspá* and *Rígsþula*. Although scholars have argued for some Christian influence on these particular poems (Steinsland 2013; Pétursson 2013), the case can be made for the majority of them retaining a pre-Christian origin (Meulengracht Sørensen 1993:164). As DuBois (2006:74) explains, "… sometimes at least, we can find a kernel of ethnographic fact behind such accounts, a recognition of a localized and meaningful symbolic act, a ritual."

First, it is imperative to note that when Christianity was introduced (or more likely forced)

to new areas, it did not completely wipe out the local pagan beliefs and practices. Christianity only went after the major pagan deities while the rest of the beliefs and traditions were largely left alone. This is where religious syncretism happens, which is when aspects of an older religion meld with that of the new one (Peel 1968).

Remnants of paganism in the Iron Age North must have survived Christianity, like many other pagan religions all over the world (Klindt-Jensen 1970: 235). Jónas Kristjánsson (1993:27-30) has suggested that the shining exemplar of this is in fact the medieval Icelandic literature: "The influence of Christianity did not prevent certain pagan ideas and moral attitudes from surviving...and it is in the sagas that the spirit of paganism is rescued from oblivion, refined in the crucible of Christianity and wakened to eternal life." Margret Clunies-Ross (1994:18) elaborated by stating that the 13th century Christian Icelanders would not have likely written these mythologies and sagas at all unless they had a basis in the traditional pagan beliefs of their ancestors.

Second, the Christian church "would have opposed the introduction of such beliefs rather than facilitate them" (Heide 2014:167-168). It would hardly be normal for the Christian agenda to repeat pagan mythology without also condemning it. Neil Price (2019:1184) agrees and suggests that the texts imply that the Church was not in fact afraid of the pagan gods becoming popular again, but rather were but afraid of the popular beliefs, superstitions, and sorcery regaining popularity. For example, "The sagas frequently reveal traditions of animistic belief in trees, rocks, hills, mountains and waterfalls," (Karlsson 2000:19) and there is no mention of this being a bad thing.

Third, concepts that are not Christian are present in the literature. An example is the concept liminality in landscape. Christianity strictly uses a Church building to communicate with

the supernatural (via a priest), but special places in the landscape could be access points for pagan humans to reach the divine (Heide 2014:168).

Fourth, terms such as "troll" and "jötnar" are native to Scandinavia and "…can be easily demonstrated to be ancient" (Heide 2014:167-168) by "…linguistic evidence from place-names, runic inscriptions, and the etymology of various words" (Andrén 2007:106). The belief in supernatural beings, such as trolls, was also not a "not a direct competitor to the essential Christian beliefs and practices" (Heide 2014:168). These beings are a completely different concept than Christian lore and therefore not necessary to replace. And these supernatural beings have even lived on to become a large part of modern folklore. Elves and trolls are so pervasive in modern Icelandic culture that they are part of the national identity and even used in ecological preservation when building dams and constructing roadworks (Benediktsson 2007; Doutreleau 2003).

Fifth, these occurrences of pagan ritual practice can be corroborated by outside observers as well as archaeology and artifacts. Contemporary Romans, Germans, and Arabs wrote about pagan Scandinavians they encountered, and the rituals they witnessed (Andrén 2007:106). For example, the Arab ambassador Ahmad ibn Fadlan wrote about Norse pagans he met on the Volga River on his way to meet the king of the Bulgars. During this encounter, ibn Fadlan recalled a funerary practice which involved setting a boat alight with the deceased on board. The lighting of a funerary ship ablaze is echoed in the myth of the god Baldur's death in *Völuspá*. Picture and rune stones, as well as archaeological evidence of ritual and artifacts from the Viking Age in Scandinavia also substantiate pagan religion and myth (Staecker 2006; Ellis 1968). Not only do these serve this function, but now we can get into the benefits of the literature in archaeology.

One important benefit of using the medieval literature in archaeology is that we have evidence of mythologies, as seen on picture stones and certain artifacts, and rituals. However, these

are only vague images. The texts allow us to add meat to the bones, giving us details and context we would not otherwise have (Clunies Ross 2008:232; Bell and Ogilvie 1978:331). More eloquently put, "…late texts *can* play a role for the reconstruction of this part of Old Norse religion in the sense that they can contribute to a more complete picture of the everyday side of Old Nordic religion" (Heide 2014: 168).

Second, ideas, themes, and motifs found in the texts can be used to ask important questions about the pagan religion that archaeology otherwise would not be able to answer on its own. The two case studies in this dissertation are cases in point here. Another example is the spirituality of travelling and guidance not only in pagan life but also in the afterlife (Dobat 2006:184). We not only can use the more reliable texts for this but the "unreliable" texts, as well. Ideas from the "unreliable" texts can create new approaches to understanding the more reliable ones. (Heide 2014:170-171)

Third, oral traditions are fluid and not fixed as are literate ones. As myths are passed on verbally, they can be altered by individual bards. This then allows for several versions of the same story to be correct (Clunies Ross 1994:22-23). Therefore, these multiple versions that were later written down remind us that we are not looking at a static dogmatic religion, but rather a fluid and dynamic one. These multiple versions of religious ideas and beliefs should then be applied to the archaeology. In this vein, even when a myth leaves its original context, it still retains its value. The fact that it endured over the centuries means that it had a significant part in the belief system (Hines 2000:166).

Fourth, the written record is more or less complete and can be considered a corpus. Compared to the ever growing and changing archaeological record, on the other hand, the texts are a constant for us to continue referring to. The new information being added the archaeological

record daily often needs a reference and answers could lie in the texts that were never noticed before (Herschend 1997:68).

Lastly, although archaeologists are not skilled in the philology of the Old Norse language, with likely only basic understanding, philologists studying Old Norse simply do not ask the kinds of questions archaeologists want to answer. Although the wearers of many hats, as archaeologists, there is only so much we can master. Neil Price (2019:97) has argued that "The depth of linguistic knowledge that a philologist would regard as a prerequisite for such studies may simply not be necessary for an archaeological examination of the same material." Therefore, as archaeologists, we can aim to ask questions beyond language development.

4.3. The Compromise

In my research in Icelandic archaeology over the years, I have come across the problem of wanting to use the medieval Icelandic documents in an attempt to gain some kind of understanding of a belief system but have always faced the problem of how exactly to use them with caution. The medieval Icelandic writers, including Snorri, had some kind of motivation for gathering these stories and writing them down for the first time. Whether it was to preserve a dying oral culture, a strictly political move, or some kind of combination, we will never know.

However, these stories and myths simply did not emerge out of nowhere. If used with understanding the context of how and why they were written, the Icelandic texts can be used by archaeologists working in Iceland to gain some insight into a worldview of, at the very least, how the medieval Christian Icelanders saw their pagan ancestors (Clunies Ross 1994:19-20; Bell and Ogilvie 1978:343). Price (2019: 97) elaborates that "…archaeologists should be able to *use* the results of research in these other disciplines (manuscript studies and philology), applying them in their own context of material culture studies, without trying to rework philological conclusions

that are beyond their own abilities."

Herschend (1997) created a level system to critically read the medieval Icelandic literature. This level system not only applies to the texts, but to the material record, as well. The 3-tiered system is comprised of: The Conceptual (the manifest), The Intentional (the ideology), and The Structural (the unconscious pattern). For example, the Conceptual level would be a physical boundary wall in the landscape. The Intentional level would be the designation of property boundaries. And the Structural level would be the arrangement of the farm itself in relation to the others nearby.

These levels "flow from the most conscious to the unconscious" (Herschend 1997:68) of the original writers of the texts. The idea is that if there is consistency on all three tiers, then there is likely a coherency to the text. By finding coherency in the texts as well as in the material record, then you get "…a comparable understanding of a concept." You also get "a discursive interpretation of the past rather than a reconstructive narration establishing facts" (Herschend 1997:77). Ian Hodder (1991:28) agrees that "both artefacts and texts can be deciphered using the same principles of metaphor…"

Bell and Ogilvie (1978:335) have also come up with some rules to critically read an Icelandic text. First, one must distinguish between an independent source and a derivative one. Derivative sources can complicate texts, such as additions, subtractions, and edits made by later compilers, transcribers, and translators (Friðriksson and Vésteinsson 2003:144-145). Once a source has been determined to be independent, then the complications that come with that must be examined.

In the case of the sagas, one must consider the writers' relations to the events they describe. For example, a local account of events tends to be more reliable than one from a contemporary

outsider. The shorter the gap between the event and the writing, the better. As police officers can attest, eye-witness accounts tend to be much more reliable the sooner they are recounted. Memory tends to fade and distort fairly soon after an event, so the clearest memory is the most reliable. The writers' agendas and presumptions must be considered for potential biases. And lastly, "histories by authors with access to documentary material and to people with first-hand knowledge of the events described" (Bell and Ogilvie 1978:337) are also considered reliable.

Ogilvie (1984:134) has made a succinct formula to follow:

> *Source reliability "requires that each source be analysed and evaluated, both in the context of its own genre, and as a separate work. At the outset, certain questions must be asked, for example: who wrote the work? why was it written? when and where was it written? If the answers to these questions show it to be a contemporary work, written by an author likely to give a truthful account, or if its author is unknown but it is clearly not a derived work, or if there is other strong evidence regarding its reliability, then it may be considered reliable and useful. Otherwise, it should not be used."*

Another element in source reliability is how the sources interact with each other. If the information about a particular event or myth is recorded by separate independent sources, how do elements vary between them? For example, "*The Greenlanders' Saga* and *Erik the Red's Saga* complement each other; information encountered in one is elaborated on in the other" (Linderoth Wallace 2000:225).

As discussed earlier, Norse pagan beliefs and traditions melded over place and time, which created multiple versions of truths. However, it is still possible to find concepts that are more or less consistent, such as cremations and ship burials (Ellis 1968:61). These themes could be as pervasive as all the way back to the Bronze Age (Andrén 2007:126). And although elements in the themes must have changed over time, it is likely the most basic concepts behind them remained the same, as part of a *longue dureé* (Thompson 2005:112; Gunnell 2015:58).

Neil Price (2019:1184-86) suggests that common themes and motifs that reoccur throughout time and space in the archaeology should be looked for in the literature in some form or other. When the literature is blurred or is lacking, the archaeology can step in, up to a point. And what one should expect to find in the ground can be suggested by the literature. The two complement each other and are much stronger together rather than separate.

For this dissertation then, I will impose the following set of rules when determining the reliability of a literary source:

1. Identify independent sources versus derivative ones

2. Identify who wrote it

3. Identifying when it was written

4. Identifying why it was written

5. Identify how the source interacts with other sources about the topic in question

6. Identify how the archaeology compares

I will now go into the different sources in more detail to discuss their reliability. I have denoted if a literary source is **Useful** or **Not Useful** as far as it being helpful in studying old Norse religious beliefs**.**

4.3.1. Poetic Edda

The manuscript that contains most of the *Eddaic Poems* and is the most famous is the *Codex Regius/Eddukvæði — Sæmundar-Edda* (GKS 2365 4to). Folklorist Terry Gunnell (2005) speaks of this manuscript as having ancient and pagan roots. These poems were most likely part

of a long oral tradition before they were put to vellum. Thus, these poems were likely to have originally been meant to be performed rather than read.

Although the poems do have roots in a pagan past, this manuscript was written 300 years after Iceland officially converted to Christianity. Not much is known about the *Codex*'s origins nor its early history. Its small physical size also made it rather insignificant to the medieval Icelanders in comparison to the larger saga manuscripts. It is thought, though, that the collection process for the *Codex* took place around the time that Snorri was writing his Prose Edda (c. AD 1200), as Snorri seems to have been aware of at least some of the poems (Kristjánsson 1988:26; Gunnell 2005:83;93).

The way the *Codex* is organized by theme and subject matter is likely not the way it started out. Rather, it was comprised of smaller collections by different collectors at different times and organized how it is currently at a later time. Scholars have come to this conclusion by means of paleography, which is the study of historical handwriting.

The contents of the *Codex Regius* are of the following:

Völuspá, Hávamál, Vafþrúðismál, Grímnismál, Skírnismál, Hárbarðsljóð, Hymiskviða, Lokasenna, Þrymskviða, Völundarkviða, Álvissmal, Helgakviða Hundingsbana I, Helgakviða Hjorvarðssonar, Helgakviða Hundingsbana II, Grípisspá, Reginsmál, Fáfnismál, Sigrdrífumál, Brot af Sigurðarkviða, Guðrúnarkviða I, Sigurðarkviða en Skamma, Helreið Brynhildar, Guðrúnarkviða II, and Guðrúnarkviða III, Oddrúnargrátr (Oddrúnarkviða), Atlakviða, Atlamál, Guðrúnarhvöt, and Hamðismál

The other Eddaic poems that are not found in the *Codex* are *Baldrs Draumar (Vegtamskviða), Rígsþula, Hyndluljóð, Svipdagsmál (Gróugaldr and Fjölsvinnsmál),* and *Gróttasöngr. Baldrs Draumar (Vegtamskviða)* is found in the 14th C. AM 748 4to manuscript. *Rígsþula* is found in the 15th C. manuscript *Codex Wormianus* and *Hyndluljóð* in the 14th C. *Flateyjarbók. Svipdagsmál* is found in the 17th C. manuscript *Holm Papp. 15 8vo* (housed in

Stockholm). *Gróttasöngr* is found in the *Prose Codex Regius* (*Codex Regius/Konungsbók Snorra-Eddu* GKS 2367 4to) and some other later copies (Kristjánsson 1988:39-40; Gunnell 2005:91-92).

Due to the several unnamed authors, as well as their likely foundation in an oral tradition, the written Eddaic poems are probably not the exact renditions of the original spoken poems. The original spoken poems likely varied by bard, time, and place. The written poems were the versions that were later memorized by the 13th century scribes. However, that is not to say that the written poems do not contain foundations in pagan tradition. Although oral traditions rework and evolve poems and stories over time and place, some themes and details tend to remain consistent.

Similar older texts from England (*Beowulf*) and Germany (*Hildebrandslied)* as well as Viking Age rune stones and archaeological artifacts all the way back to the Migration Age attest to the poems' pagan roots. There are also some references to types of various artifacts and ritual practices that the medieval scribes just would not have known about unless it came from older material. The written poems also indicate a rich mythological background that must have been known and understood by the audience of the oral poems. That is to say that the written poems seem to be a watered-down version of pagan myth and legend (Kristjánsson 1988:48; Gunnell 2005:93-94).

Another indicator of the poems' pagan and early history are the locations of the stories. Some stories specifically say that they take place outside of Iceland, while others describe landscape and animals that are akin to mainland Scandinavia and not Iceland (i.e. fir trees and wolves). Most scholars tend to give the poems' origins to Norway whose people then took them on to Iceland (Kristjánsson 1988:29).

Although the details, origins, and contexts will forever be debated, the *Eddaic Poems* have value in reconstructing pagan worldview and belief. It is, therefore, safe to say that the Eddaic

Poems contain elements of pagan tradition, belief, and ritual. And although some of the poems have clearly been influenced by their medieval writers in style and form, "The material had been in people's minds and on their lips long before it was recorded" (Gunnell 2005:93). Therefore, all of the *Poetic Edda* is **Useful**, unless otherwise stated.

4.3.2. Prose Edda

Snorri Sturluson's *Prose Edda* was written around AD 1200 upon his return from Norway. It is comprised of a *Prologue, Gylfaginning, Skáldskaparmál,* and *Háttatal.* He likely wrote *Háttatal* first, which are the rules for writing skaldic poetry (different from Eddaic Poetry). The *Prologue* was likely added last and in it, Snorri suggests that paganism in the north was the result of euhemerism.

The cosmological myth Snorri recounts in *Gylfaginning* is similar to that found in the Eddaic Poems, *Völuspá, Vafþrúðismál* and *Grímnismál.* The structure of *Gylfaginning* is also similar to these poems. Snorri was also familiar with the poems *Lokasenna*, *Hávamál*, and *Þrymskviða. Gylfaginning* also draws upon other older poems that have not been written down and which we no longer know. There are also other stories that do not have parallels in the Eddaic poems, but still likely had pagan roots (Kristjánsson 1988:175-176; Gunnell 2005:82-83).

Skáldskaparmál was written to list all the *kenningar* and *heiti* of skaldic poetry (see **Ch.2.**). Although *Skáldskaparmál* was written for these poetic devices, it is really important for myth and legend preservation. Some of the poems, such as *Gróttasöngr,* are found here and nowhere else. Also, the *kenningar* referenced pagan mythology. A great knowledge of the mythology was necessary to understand these *kenningar* and hence the stories themselves. An example is "Freyja's tears," meaning gold, as the goddess was said to weep tears of gold. It is likely that the *kenningar* and *heiti* are why these stories were remembered centuries after the conversion to Christianity.

Early Viking Age Norway saw the first of the skaldic poetry, but by the 13th century it went into decline and Iceland was the main user (Karlsson 2000:17; Meulengracht Sørensen 1997:206-207).

Snorri is one of the first known secular Icelanders to write prose (Faulkes 2005: xv). This suggests that Snorri's *Edda* was written for secular purposes and not a Christian one. Rather, he was interested in poetry and history. "As a mythographer he was concerned to show that the attitudes and beliefs of his forebears were rational if unenlightened, and as a critic of poetry to show their culture as a highly developed art" (Faulkes 2005:xvi).

However, it must be understood that medieval Iceland was Christian, which must have influenced Snorri's perspective. We will never know if he had a personal agenda in setting the mythology to vellum. But, here, I must come to his defense. Snorri's writing style directly contrasts that of other medieval European writers. Typically, a medieval "historian's" main goal was to reinterpret pagan mythology as Christian allegory. Snorri's *Edda* seems mostly unaffected by this bias. Rather, he "…narrates his myths (through the mouths of his characters) as myths, entirely without comment and without attempting to use them for any moral purpose…the only 'significance' the stories have is aetiological" (Faulkes 2005:xxi-xxii).

Snorri must be defended also because he promoted the idea of citing one's work. Snorri "emphasizes the importance of naming one's sources and of writing a true account" (Bell and Ogilvie 1978:337). It is worth noting that Snorri wanted to do his best in representing what he at least thought his ancestors believed, as he was concerned with historical accuracy (O'Connor 2005:103;168; DuBois 2006:74). Snorri saw pagan religion as his ancestors' attempt to understand their world without the benefit of knowing Christ. This allowed him to be objective about pagan beliefs (Ellis Davidson 1993:144-145; DuBois 2006:77). Therefore, all of the *Prose Edda* is rated as **Useful.**

4.3.3. Sagas

The native sagas of Iceland (meaning written by Icelanders in Old Icelandic) most likely were derived from two different types sources. The first source was the accounts of Saints written in Latin as well as other Christian Church material from Europe. The other source was the oral accounts of events within Scandinavia and Iceland. Although the Christian Church and Saints' material likely sparked the medieval Icelandic desire to write their own stories, these are not of interest to this dissertation. Rather, as the pagan past of Iceland and Scandinavia is sought after, the oral tradition that turned into the *Icelandic sagas* is what is of importance in this category of literary evidence.

It is believed that the oral accounts of events took place in the relatively near past of when they were written. This oral tradition was probably similar to how people recount stories today. They were likely "…from knowledgeable people with an easy flow of talk: brief and unadorned, with little or no direct speech, though sometimes an apt response is included" (Kristjánsson 1988:149). Icelanders then learned how to write these oral stories down in a way that was comprehensive and entertaining, by learning from the written Christian material. "In a word, the learned literature did not teach the Icelanders what to think or what to say, but it taught them how to say it" (Turville-Pétre 1953:142).

4.3.3.1. Historical Sagas and The Kings' Saga

The *Historical Sagas* (*Landnámabók* and *Íslendingabók*) are the first accounts of the initial Icelanders. Ari Þorgilsson's *Íslendingabók* is about the history of Iceland from settlement up until his own time. Ari was born in AD 1067 or 1068 and is rather close in time to some of the events in which he recounts. The account of Iceland's official conversion to Christianity at the Alþing in

AD 1000 is only about one generation earlier than Ari. However, the original *Íslendingabók* has been lost and only two 17th century copies by Jón Erlendsson remain.

Ari also states in his preface that there were originally two versions, the first of which was written between AD 1122 and 1133. This first version was then edited into the now extant, which was likely written around AD 1130. It was edited for content, mainly omitting things about Norway and adding more about Iceland. This was done because of pressure from the local bishops. He also spent a lot of time talking about the coming of Christianity to Iceland, which suggests a heavy politico-religious influence, if not a motivation behind this work.

However, Ari does have credibility in his accounts. First, he was very concerned about source reliability. And second, he was careful about chronology. Ari's sources were not only people he greatly respected but they were also people that he knew to have long memories and were truthful (Kristjánsson 1988:122).

Landnámabók, the codification of *Íslendingabók*, is found in the manuscripts *Sturlubók* (late 13th C.), *Hauksbók* (c. AD 1300) and partially in *Melabók* (early 14th C.). Around 430 settlers are named as well as their homesteads and settlement boundaries. "Names and lines of descent from settlers are probably trustworthy on the whole but relying on the pedigrees of the settlers themselves is another matter – they are often traced to royalty and great men of the dim and distant past. Reports of events are often dubious too…for many of them wear the garb of folk-tale and are altogether larger than life. These tales turn *landnám* into literature but do less for the status of *Landnámabók* as a history" (Kristjánsson 1988:127).

The *Kings' Sagas* (see **Appendix A**) are accounts of the kings of Norway, Sweden, and Denmark. They are some of the oldest documents as they were written in the mid-12th century.

Many of these accounts are reliable in that they tend to be close in time to the events they describe, and the writers seem to be relatively unbiased.

For example, the abbot Karl Jónsson wrote *Sverris saga*, the story of the king Sverrir, with Sverrir himself as his informant. Karl is an example of the impartiality of the Icelandic writers as he was a Benedictine abbot who wrote "…so judicious an account of an apostate king who at the end of his life was under the ban of the pope in Rome, and at the same time be able to present the king's struggle for his cause as a deeply-felt response to a sacred call" (Kristjánsson 1988:154). The *Ágrip af Nóregskonungasögum* (the *Compendium of the histories of the kings of Norway*) also is rather unbiased. It is a synopsis of the history of the Norwegian kings. It was most likely first written in Norway and then made its way to Iceland. The Icelandic version was written in the early 1200s. The *Ágrip* was an imperative source that the later *Kings' sagas* drew from, including Snorri Sturluson's *Heimskringla.*

However, some of the *Kings' sagas* are heavily influenced by their Christian writers. These legendary kings of the past were turned into Christian heroes and were likely modeled on European saints. Some stories were even first written down in Latin. Sagas such as *Óláfs saga Tryggvasonar* and *Helgisaga Óláfs konungs Haraldssonar* are full of exaggeration and divine intervention and hence cannot be trusted much (Kristjánsson 1988:156-158).

Orkneyinga saga is the only *Kings' Saga* used in this dissertation, so its reliability needs to be addressed. This saga was written around AD 1200. Some of the events recounted appear to have been written down even earlier, likely in the 1100s near to when the events took place. Its style also suggests that it was written by a lay Icelander (Kristjánsson 1988:164-165). These qualities make it a rather **Useful** source.

4.3.3.2. The Contemporary Sagas

The *Contemporary Sagas* is comprised of just *Sturlunga Saga,* which relates accounts of Icelandic chieftains and their disputes, from AD 1120 to 1262. This time period is creatively called the *Sturlung Age. Sturlunga Saga*, as mentioned in **Chapter 2**, is a compilation of several sagas. As the name suggests, these *Contemporary Sagas* were written down around the time the events occurred. Kristjánsson (1988) places the *Bishops' Sagas* in this category because technically they are contemporary accounts, and hence I will as well.

Sturlunga Saga was likely compiled around AD 1300 by Þórðr Narfason. This compilation modifies and abridges the sagas as some of the original versions still exist. There are two manuscripts containing *Sturlunga Saga, Króksfjarðarbók* (AM 122a fol.) and *Reykjarfjarðarbók* (AM 122b fol.), both of which are from the 1300s.

Íslendinga saga is the core of *Sturlunga Saga* as it the most extensive as well as covers the most tumultuous period in Icelandic history. It was written by Snorri Sturluson's nephew, Sturla Þórðarson. There is debate about Sturla's bias as he was heavily involved in the disputes he wrote about (Kristjánsson 1988:187-198). However, this dissertation does not use this source and hence is not up for discussion.

The *Bishops' Sagas* (see **Appendix A**) are related to the *Kings' Sagas* in that the bishops held an almost royal status in medieval Iceland. These sagas were also written fairly early on as they mainly come from the late 1000s. The only *Bishops' Saga* used in this dissertation is *Guðmundar saga biskups (The Life of Guðmund the Good: Bishop of Hólar).*

Guðmundr was called "the Good" during his day because many "miracles" were attributed to him. He was also considered by many to be a local Icelandic saint. Several sagas were written about him, the first known as *Prestssaga Guðmundar góða.* This was likely written by

Guðmundr's loyal student, Lambkárr Þorgilsson. The *Prestssaga* was later incorporated in the *Sturlunga saga* as a four-part series (Kristjánsson 1988:184-185). This is the version used for this dissertation. Subsequent sagas were written about Guðmundr, but do not need to be addressed here. Obviously, Guðmundr's saintly "miracles" are to be taken with a very large grain of salt. However, his story was first written by a contemporary of his and hence has some basis in reality. Therefore, this saga is still **Useful**.

4.3.3.3. The Family Sagas

The *Family Sagas* (see **Appendix A**), also known as just the *Íslendingasögur*, are comprised of about 40 sagas plus several *þættir* (short stories). As opposed to the *Contemporary Sagas*, the *Family Sagas* take place in the near distant past from when they were written, spanning a time from about AD 930 to 1030. This time period is known as the *Saga Age*. These are the sagas that are the most famous as they describe the pagan founders of Iceland.

The *Family Sagas* are similar to the *Kings' Sagas*, as they also tell legendary tales of legendary people. The *Family Sagas* are different, though, in that their importance to the Icelandic people far exceeds the *Kings' Sagas.* The *Family Sagas* are the national treasure of Iceland because they describe the landscape and places that still exist today. It not only reinforces that modern Icelanders are bound to the Icelandic landscape, but also to the people who first populated it.

However, tracing the *Family Sagas'* origins presents several problems. First, there is not even one identifiable author, although suggestions have been made. Second, specific known times and locations of authorship are not known either. Most of the extant manuscripts are later copies. Third, how much information stems from oral tradition versus from the authors' imaginations is a mystery. It is no mystery, however, that the sagas must have been confused and exaggerated over

time as oral stories. To further complicate things, we do not know how much the medieval authors contributed to the content.

It has long been thought that the *Family Sagas* were records of real historic significance and that they were eventually written down from a static oral tradition. Many modern Icelanders still accept the *Family Sagas* as factual history, even asking archaeologists where so-and-so's house was. This view is of course not satisfactory to the academic who understands that these stories have a specific context in which they were written. Some have speculated that the *Family Sagas* are a product of their medieval generation, as Christian propaganda or pure fiction, and thus should not reflect pagan Iceland whatsoever (Kristjánsson 1988:203-206).

However, the medieval authors were not free to write whatever they pleased. These sagas were most likely from a long-standing oral tradition and thus a standard would have been held up for the authors to meet. Certain themes, motifs, basic story structures, and poems would have been known and failure to transcribe them properly would have been met with severe criticism. This is evidenced by strangely placed tangents and crammed in verses that interrupt plots (Kristjánsson 1988:203-206).

It is most likely that the *Family Sagas* did have an origin in an oral tradition. This is evidenced by the stories' apparent objectivity about the characters and events. There are also many, many names and complicated family relationships that are divulged which would be quite the task to conjure from pure imagination. These characters are also realistic in that they are complex. Instead of the standard medieval European archetypes meant to disseminate Christian morals, the characters in the *Family Sagas* are dynamic and multi-faceted.

Also, although most oral traditions are not dogmatic, that is not to say that they do not maintain consistency in many aspects. Just as physical ritual practices can evolve over time while

maintaining several essential elements, so can oral traditions, such as myth evolving into folktale. It is also of interest to note that the language and structure in which the *Family Sagas* were written is local. There does not seem to be a heavy influence from Latin, lending some credibility to them (Kristjánsson 1988:203-206).

Although we do not know for sure when the *Family Sagas* were written, there is evidence to suggest this was done for a period of time ranging from about the end of the 1100s though the mid-1300s. The later manuscript oftentimes say that they are copies of older versions. Some of the sagas can also be found to have been influenced by earlier sagas, such as the *Kings' Sagas*, or by the later *Heroic* and *Romantic sagas* and hence can be dated comparatively. **Table 1** below contains descriptions of the *Family Sagas* used in this work's two case studies.

Table 1. Description of the Family Sagas Used in the Case Studies

Title	Manuscripts	Description	Useful/Not Useful	Sources
Kormáks saga	*Möðruvallabók* (AM132 fol.) (AD 1330-1370)	The only medieval copy from which the English is translated. This manuscript contains 11 Icelandic sagas and was likely written in Möðruvellir in Hörgárdal, up in the north of Iceland. It is likely this saga was first written no later than AD 1220.	Useful	Kristjánsson 1988:208; 228; Ólason 2005:115; handrit.is
Heiðarvígasaga	*Lbs fragm 1* (AD 1350-1399) and *AM 450 b 4to* (AD 1730)	This is one of the oldest sagas, however, it is also one of the most questionable. The first 12 leaves of the first known manuscript (Lbs fragm 1) (1350-1399AD) and only copy were both lost in the Copenhagen fire of 1728. Jón Ólafsson summarized the saga, including the missing part, from memory in AD 1730 (AM 450 b 4to). It is thought the original was written in the latter half of the 1100s.	Not Useful	Kristjánsson 1988:225; Ólason 2005:115; handrit.is
Laxadæla Saga	*Möðruvallabók* (AM132 fol.) (AD 1330-1370)	Likely written in Möðruvellir in Hörgárdal, up in the north of Iceland. The original was probably no older than AD 1240. Could have been influenced by the later *Romantic Sagas*, but not by much.	Useful	Kristjánsson 1988:208;274; Kunz 2000:275; Ólason 2005:113; handrit.is

Table 1 Con't. Description of the Family Sagas Used in the Case Studies

Title	Manuscripts	Description	Useful/Not Useful	Sources
Þórðar saga hreðu	*Vatnshyrna codex* (AD 1391-1395); *Pseudo-Vatnshyrna* (AM 445 b4to) (AD 1390-1410); *Am 551 d b 4to* (AD 1400-1450); *AM 471 4to* (AD 1450-1500); *Arnarbælisbók* (Am 586 4to) (AD 1450-1500); *Holm perg 8 4to* (AD 1450-1500); *Sögubók* (AM 152 1-2 fol.) (AD 1500-1525)	Two versions of this story exist, only one of which is complete. The two versions are quite different from each other, although the complete copy is the most popular and most attested. The fragment version is found in the *Vatnshyrna codex*, which was commissioned by Jón Hákonarson and written by Magnús Þórhallsson. It was destroyed in the 1728 Copenhagen fire. The *Pseudo-Vatnshyrna* is a copy by several unknown authors. 5 other medieval copies exist of the story. Ward (2016) has argued that both versions exist because although they were written at the same time, the two versions were aimed at two different audiences.	Useful	Kristjánsson 1988:238-239; Ólason 2005:113; Lethbridge 2014; Ward 2016:94; handrit.is
Eiríks saga rauða	*Hauksbók* (AM 544 4to) (AD 1300-1325) and *Skálholtsbók* (AM 557 4to) (AD 1420-1450)	Two versions of this story exist, the longer being the older (*Hauksbók*). Both were based on an earlier text from after AD 1263 and the 1263 text was based on an even earlier text from AD 1200-1220. *Hauksbók* was copied by Haukr Erlendsson. *Skálholtsbók* was likely written by Ólafs Loftsson. This saga is believed to be accurate and reliable because it agrees with several reliable sources such as *Heimskringla*. Many accounts in this saga were also confirmed by the archaeological site of *L'Anse aux Meadows* in Newfoundland, Canada.	Useful	Kristjánsson 1988: 223, 270; Whaley 2005; Kunz 2000:360; Ólason 2005:113; handrit.is

Table 1 Con't. Description of the Family Sagas Used in the Case Studies

Title	Manuscripts	Description	Useful/Not Useful	Sources
Vatnsdæla Saga	*Vatnshyrna codex* (AD 1391-1395); *Pseudo-Vatnshyrna* (AM 445 b4to) (AD 1390-1410)	This is an early saga, thought to be written between AD 1270 and 1280. The earliest copies, however, are the lost *Vatnshyrnu codex* and the *Pseudo-Vatnshyrnu.* This saga has a lot of Christian morality in it, which might give it some bias.	Useful	Kristjánsson 1988:233; Wawn 2000:188; Ólason 2005:113; Lethbridge 2014; handrit.is
Orms þáttur Stórólfssonar	*Flateyjarbók* (GKS 1005 fol.) (AD 1387-1394); *Konungsbók* (GKS 2845 4to) (AD 1440-1460); *AM 567 V 4to* (AD 1450-1499)	Found in several manuscripts; the earliest one is *Flateyjarbók*, which was transcribed by Jón Þórðarson. Here it is part of *Óláfs saga Tryggvasonar.* The other medieval copies are found by themselves in *Konungsbók* and *AM 567 V 4to.* Both of these editions are copies from a lost older version that was related to *Flateyjarbók.* Although this is one of the later *þættur*, *Orms* was likely written before it was compiled into *Flateyjarbók*, as it is a copy there. It was also likely its own story originally. Possibly related to the Anglo-Saxon *Beowulf.* Also has heavy Christian themes.	Useful	Faulkes 2011:20,34-38; Lethbridge 2014; handrit.is

4.3.3.4. The Heroic Sagas

The *Heroic Sagas* (*fornaldarsögur Norðurlanda*) (see **Appendix A**) are fantastic stories that take place in Scandinavia before the settlement of Iceland (Late Vendel to Early Viking Age). The name *fornaldarsögur Norðurlanda* translates to "the tales of ancient times in the North." These stories are based on folktales, romances, and mythical poetry and were written in the 13th century. The *Heroic Sagas* are related to the *Kings' Sagas* in this way as they take place in the mythological past with real people that are highly exaggerated. The oldest were likely from the

mid-1200s, however the oldest existing manuscript that contains a *Heroic Saga* is *Haukbók* (AM 544 4to, AD 1300-1325). They are not much younger than the *Family Sagas*.

It is most likely that the older *Heroic Sagas* originated from an oral tradition. This is known because many of the characters and events are also found in Germanic and Anglo-Saxon heroic poetry, the *Poetic Edda,* and Saxo's *Gesta Danorum*. Thus, these sagas are a continuation of the Norse oral tradition. The later *Heroic Sagas* have some influence from the translated from European *Romantic Sagas*, such as common motifs. However, they differ in location, content, and management. Despite this borrowed influence, these sagas are still important to the Nordic literature in that they have been spun in a way that made sense to the Nordic people. Vésteinn Ólason summarizes this difference succinctly:

> *In the beginning such sagas were heavily dependent on the oral tradition and reflected the traditions and ideas of a Viking-Age society where the free farmers were the dominating class. The fictitious sagas composed in Iceland in a later period reflect changes towards feudal society and ideology, being products of a literary culture with an awakening authorial self-consciousness that finds expression in parody and an ironic treatment of traditional forms and values.* Ólason 1994:101-102.

Unlike the *Kings'* and *Family Sagas*, the kind of oral tradition that these sagas come from are of a folktale nature, and not a pseudo-historic one. The orators and authors knew they were dealing with fiction, which allowed for a lot of freedom in form. In this oral tradition, they were used for entertainment. It has also been suggested that the *Heroic Sagas* were used as inspiration for the men and women struggling in the harsh realities of an early medieval Iceland (Kristjánsson 1988:341-343; Ólason 1994; Karlsson 2000:70-71; Helgason 2005:67; Tulinius 2005; Jakobsson 2012). **Table 2** below contains descriptions of the *Heroic Sagas* used in this work's two case studies.

Table 2. Description of the Heroic Sagas Used in the Case Studies

Title	Manuscripts	Description	Useful/Not Useful	Sources
Þorsteins saga Víkingssonar	*Eggertsbók* (AM 556 b 4to) (AD 1475-1499) and *AM 152 fol.* (AD 1500-1525)	Found in the second half of *Eggertsbók*	Useful	Lethbridge 2014; handrit.is
Þorsteinn þáttur bæjarmagns	*AM 343 a 4to* (AD 1450-1500); *AM 577 4to* (AD 1450-1500); *AM 589 e 4to* (AD 1450-1500); and *AM 510 4to* (AD 1540-1560)	This saga is found in c. 50 manuscripts. The four key medieval manuscripts are to the left. *AM 589 e 4to* is the version used to translate it to English.	Useful	Lummer 2017:49; handrit.is
Hálfdanar Saga Eysteinsson	*Arnarbælisbók* (AM 586 4to) (AD 1450-1499) and *AM 343 a 4to* (AD 1450-1475)	Considered a Romance type of *Heroic Saga*.	Useful	Kristjánsson 1988:362; Lethbridge 2014:73-74; handrit.is
Hervarar saga ok Heiðreks	*Hauksbók* (AM 544 4to) (AD 1300-1325) and *Konungsbók* (GKS 2845 4to) (AD 1440-1460)	Based on heroic poems. This story is found edited and abridged in *Hauksbók.* It is also found in *Konungsbók.* The story is originally thought to have been written around the mid-1200s, making it an older saga. It is also usually associated with the *Poetic Edda.* However, there are three versions of this found in various scattered manuscripts.	Useful	(Kristjánsson 1988:349-352; Gunnell 2005:92; Tulinius 2005:452; Lethbridge 2014; Lummer 2017:19-20

Table 2 Con't. Description of the Heroic Sagas Used in the Case Studies

Title	Manuscripts	Description	Useful/Not Useful	Sources
Bósa saga ok Herrauds	*Arnarbœlisbók (*AM 586 4to) (AD 1450-1499); *AM 343 a 4to* (AD 1450-1475); *AM 510* (AD 1540-1560); *AM 577 4to* (AD 1450-1499)	Considered a Romance type of *Heroic Saga.* It is also hard to trace as it has been edited by different scribes. It does have curses which could be older as they are also found in *Völsungakviða* and *Skírnismál.* However, there are two versions of this saga and they differ quite a bit. The shorter, older version is found in more than 20 manuscripts. The main medieval ones are to the left.	Not Useful	Kristjánsson 1988:361-362; Lummer 2017:33-34
Göngu-Hrólfs saga	*Konungsbók* (GKS 2845 4to) (AD 1440-1460) and *Sögubók* (AM 152 1-2 fol.) (AD 1500-1525)	Considered a Romance type of *Heroic Saga*. It is, however, one of the longest, yet most consistent of the *Heroic Sagas*	Useful	Kristjánsson 1988:361; Lethbridge 2014:73-74; handrit.is
Norna-Gests þáttr	*Flateyjarbók* (GKS 1005 fol.) (AD 1387-1394); *Konungsbók* (GKS 2845 4to) (AD 1440-1460); *AM 62 fol.* (AD 1375-1399), *AM 567 V 4to* (AD 1450-1499), *AM 54 fol.* (AD 1500-1599).	This story is based on heroic poetry, so it has older origin. However, the story as it is now is generally thought to be from the early 1300s. It also has a theme of Christian conversion and morality and is often found with manuscripts about St. Olaf.	Useful	Kristjánsson 1988:353-354; Tulinius 2005:457; McDonald 2011; handrit.is

Table 2 Con't. Description of the Heroic Sagas Used in the Case Studies

Title	Manuscripts	Description	Useful/Not Useful	Sources
Helga þáttr Þórissonar	*Flateyjarbók* (GKS 1005 fol.) (AD 1387-1394); *AM 62 fol.* (AD 1375-1399), and *AM 54 fol.* (AD 1500-1599)	Closely related to *Norna-Gests þáttr* in plot. It is also found directly behind *Norna-Gests þáttr* in the manuscripts, which further connects the two sagas. Like *Norna-Gests þáttr*, this story is also found in manuscripts containing stories about St. Olaf, suggesting a Christian influence, as well.	Useful	Lummer 2017:27; Ashman Rowe 2004; handrit.is

4.1.1. The Saints' Sagas, the Romantic Sagas, Grágás, and Galdrabók

The *Saints Sagas* (*heilagra manna sögur*) (see **Appendix A**) are not used for this dissertation. They are **Not Useful** because they were translated directly from Latin, are strictly Christian material, and are mostly about foreigners. Therefore, their contribution does not help this present work. However, it should be noted again that they are important overall, as they were the first Sagas written in Iceland which inspired the subsequent Saga genres.

The *Romantic Sagas/Chivalric Sagas* (*riddarasögur*) (see **Appendix A**), written in the 13th century, are also not used for this dissertation because they are indisputably of foreign origin. These sagas are **Not Useful** because they were translated into Old Icelandic directly from French and other medieval European poems of chivalry. Some are just Icelandic versions of the same foreign hero knights and their love stories (Karlsson 2000: 68; 71).

Grágás, which are the *Laws of Early Iceland*, however, are used for the purposes of this dissertation. This is a highly **Useful** source, as its origins are easily traceable. Several copies exist;

the oldest is 2 vellum leaves (AM 315 d fol.) (1150-1175); *Staðarhólsbók* (AM 334 fol.) (1260-1281AD) and *Konungsbók Grágásar* (GKS 1157 fol.) (1240-1260AD) are the largest volumes and were likely written by the same unknown scribe. The *Konungsbók* is the one that is copied and translated into English. See **Chapter 2** for more details.

The manuscripts containing "Magic Books," also referred to as the *Galdrabók,* are considered **Useful** for the purposes of this dissertation, even though they have late dates of writing and some Christian influence. The folklore texts are also **Useful** despite the same complications. For more discussion on these, refer to **Chapter. 2**.

4.1.2. A Positive Example

Here I would like to give an example of a successful archaeological interpretation using texts. Marianne Hem Eriksen's (2013) "Doors to the Dead. The power of doorways and thresholds in Viking Age Scandinavia" is systematic, organized and critical, as opposed to Bjarni Einarsson's article of a similar topic. Eriksen theorizes that doorways and thresholds were used by Norse pagans to communicate with their dead. To make her argument, she skillfully uses the medieval Icelandic texts along with archaeology.

The article opens by suggesting that doorways and thresholds in mortuary settings could be one of many ritual aspects used by Norse pagans. As discussed above, Norse paganism was not dogmatic and varied by time and space. Eriksen recognizes that and suggests her theory as one of many rituals utilized. It is important that she addresses the fluid nature of Norse paganism as it leaves other interpretations of ritual activity as valid.

She then moves on to anthropological theory about doorways and thresholds and their functions as boundaries in liminal space. After discussing the liminal and metaphorical association

of doorways cross-culturally, Eriksen then incorporates the Viking Age longhouse into discussion. Next comes the most important aspect of the article, which is the introduction and criticism of the literary sources.

The first literary source example given is ibn Fadlan's account of the Rus on the Volga River. As this is a contemporary outsider's account, it is outside the scope of this paper. However, the subsequent source examples are the medieval Icelandic texts. These are systematically divided into two categories: "Gateways of the dead," and "Fear of the dead: controlling the thresholds."

In "Gateways of the Dead," Eriksen discusses two Eddaic poems, *Baldrs draumar* (The Dreams of Baldr) and *Grógaldr*. She first tells us that these poems are known from manuscripts from the 13th and 14th centuries, giving us dates of the earliest time of writing. Second, although, the *Baldrs draumar* poem has a clear source history, there is a slight problem with the sourcing of *Grógaldr*. Eriksen (2013:192) explains that the oldest copy of this poem is from the 17th century. This problem, though, is circumvented by looking at the Eddic meter used as well as pre-Christian themes, which together suggest an older origin. Not only does Eriksen address the origins of the sources, she also links them together with fundamental similarities: they both involve "a sorceress – being buried behind a door, and a man using *galdr*, magic speaking/singing, to wake the body from the dead, and ask for prophecy" (*ibid.* 193).

In "Fear of the dead: controlling the thresholds," Eriksen then uses *Erbyggja saga*, *Egils saga SkallaGrimssonar*, and *Landnámabók* as examples of death doors used in mortuary ritual to keep the dead away from the living. She then goes on to connect these mentions of death doors to physical structures. These doors have persevered throughout history up until modernity. They are even preserved in some of the "oldest still-standing buildings in Scandinavia" (Eriksen 2013:193). Not only this, but in archaeology, the fear of ghosts can be seen in graves with stones on top of

and spears through the corpse.

Eriksen then goes on to say that another source problem is that of the medieval Christian concept of door portals. As the oldest copies of the Icelandic texts come from the high middle ages, it is easy to conclude that the ritual doors in the literature must have a Christian origin. However, Eriksen makes the case that these death doors are in fact pagan in origin, as "Sorcery, necromancy and *galdr* are not concepts easily reconcilable with the medieval, Christian world view" (Eriksen 2013:194). Here she continues with the archaeological evidence.

Like the literature suggests, doors not only allow access to the dead, they also deny it, keeping the dead at bay from the living. The archaeology also suggests this. The first example of archaeological links are several doorway burials from the Late Iron Age and Viking Age Norway and Sweden. In these cases, the dead were placed directly in the doorway, so that one would have to pass over the dead to enter or leave the house. It is debatable what exactly this practice meant, or if it had several meanings depending on place and time, such as a place to access ancestors or to keep ill-intended strangers away. The clear point, however, is the dead here were associated with the boundary and liminality of doorways.

The second form of archaeological evidence is the mimicry of house structures within burial mounds. Thresholds or doorways have been argued to have been found in large burial mounds along with other types of features akin to houses for the living. The third form is the "portal" structure found in grave sites. These are south-west features that are "open or closed rectangular chains of stone, located on the edge of grave mounds or stone settings…usually filled with stone or gravel…a few contain ceramic shards or burnt bones, and a minority contain burials" (Eriksen 2013:201). Although there are several interpretations of these structures, Eriksen suggests that whatever ritual might have occurred, "the threshold space made the dead approachable and

created a between-place where the dead and living could communicate" (*ibid.* 201).

The concluding pages of the article go on to discuss three categories of the functions of mortuary doorways in Norse paganism: as access points, as opposition points, and liminal points of deviation. Here, Eriksen combines the literary evidence with the archaeological evidence categorically. What Eriksen succeeds in this article is the cohesive and structured argument. The key is the evidence provided by the literature being structured and organized as well. Eriksen is also very clear about the limitations of the literature as well as its contextual background. She also clearly organizes her primary literary sources so as to make it very easy to retrace her steps. This article is a clear example of how the medieval Icelandic literature can be applied systematically to archaeology without falling into the traps of "lore-hunting" or cherry-picking.

CHAPTER FIVE:

CASE STUDY NO. 1: CATS

Why cats? Domestic cats (*Felis silvestris catus*) are a rare find in Viking Age Iceland. The majority of the small number of finds come from likely ritual contexts. The most obvious interpretation for their presence is that they served a practical function as pest control, and then somehow ended up in ritual contexts. However, the zooarchaeological evidence suggests that the need for cats as pest control was not necessary in Iceland until the Middle Ages when towns grew.

The other argument scholars make is that domestic cats were regarded for their exoticism. As traders and raiders traveled the world, they would have come across both wild and domesticated cats. Bringing back a cat possibly would have been the equivalent of a modern Westerner bringing home a monkey. However, exoticism does not eradicate religious function. Besides, pagan Scandinavians would have been familiar with the feline family as the lynx (*Lynx lynx*) and European wild cats (*Felis silvestris silvestris*) were present in Scandinavia since the Stone Age. It is possible, then, that the long-standing significance of these wild cats was transferred to the domestic versions that they were able to keep as living idols in the home.

5.1. Domestication and Introduction to Scandinavia

5.1.1. Early Domestication

Scholars do not know exactly when and where cats were first domesticated, but it is clear that the domestic cat (*F.s. catus*) comes from the wildcat lineage. “Wildcats (*Felis silvestris*) are distributed all over the Old World. Current taxonomy distinguishes five wild, geographically partitioned subspecies: *Felis silvestris*, *Felis silvestris lybica*, *Felis silvestris ornata*, *Felis*

silvestris cafra and *Felis silvestris bieti*" (Ottoni 2017:1). Genetic analyses revealed that the domestic cat only stems from the African wildcat (*F.s. lybica*) subspecies, and this was very recently (Driscoll et al. 2009:9975; Ottoni 2017:1). However, the exact domestication process still remains a bit cloudy. "Unlike many other domesticated mammals bred for food, herding, hunting, or security, most of the 30–40 cat breeds originated recently, within the past 150 y, largely due to selection for aesthetic rather than functional traits" (Montague et al. 2014:1).

Studies have shown that cats are not even truly fully domesticated, but rather semi-domesticated. Cats are solitary and territorial, and do not need to rely on humans for food or breeding. They do not perform directed tasks, so their functionality is disputable, as compared to the dog. Cats are also almost morphologically and behaviorally the same as wildcats and they also co-mingle (Cameron-Beaumont et al. 2002; Driscoll et al. 2009:9974). The only difference between domestic cats and wildcats are "docility, gracility and pigmentation" (Montague et al. 2014:3). Recent findings have also established that the cat likely domesticated itself (Driscoll et al. 2009:9974; Hu et al. 2014; Montague et al. 2014). This will be examined in the discussion section at the end of this chapter.

The first cat-human associations are archaeologically known from the Neolithic: a human buried with a young wildcat in Cyprus (ca. 7,500 BC) (Vigne et al. 2004:259), isolated wildcat finds at Jericho (modern day Israel) (ca. 7000 BC) (Clutton-Brock 1993:26), and 2+ felid individuals found in three middens in Quanhucun, Shaanxi, China (ca. 3,300 BC) (Hu et al. 2014:117). In Ancient Egypt, around 3700 BC, we have the first evidence of mummified cats at the Pre-dynastic elite cemetery in Hierakonpolis, but their exact subspecies is unclear (Van Neer 2014). Later, around 2000 BC, we find the first verified evidence of domestic cats in the form of Ancient Egyptian art. Three hieroglyphic cats are depicted on a temple wall-relief in el-Lisht, near

the pyramid of King Amenemhat south of Cairo. However, this wall-relief could have been from the earlier cult-temple of Pepy II in Saqqara (Malek 1997:45-46). Regardless, this leaves a gap of about 5,500 years for the domestication process that we just do not fully understand.

"Cat domestication was a complex, long-term process featuring extensive translocations that allowed admixture events between geographically separated cat populations at different points in time" (Ottoni 2017:5). It is speculated, but highly likely, that the cat was first domesticated in Ancient Egypt and also separately in Mesopotamia. From the admixture of these two domestications, we get the line of *Felis silvestris lybica*, which is the line of modern domestic cats.

5.1.2. Cats in Scandinavia

The European wildcat (*F.s. silvestris*) thrived in Scandinavia from about 9500 to 2500 years ago (Lepiksaar 1986:23). Ancient Scandinavians (Mesolithic – Bronze Age) were familiar with and even venerated wildcats. The earliest evidence of human interaction with the wildcat comes from a Paleolithic site called Ballstorp in Vestergotland, Sweden. Another Swedish Stone Age site, called Ringsjöns utlopp in Skåne, a wildcat was found buried in a pit and covered with red ochre. Wildcats were also used for their fur in the Stone Age (During 1986:151), but this is not the line from which the domestic cat came. By the Late Roman Iron Age (c. 200 AD), the wildcat was barely around (Bitz-Thorsen and Gotfredsen 2018:2). The line is still present today because it co-mingled with domestic cats and by modern conservation efforts (Ottoni et al. 2017:5).

The domestic cat (*F.s. lybica*) likely began to spread from Egypt around 1700BC, possibly due to their attraction to black rats (*Rattus rattus*) and house mice (*Mus musculus*) on ships. The domestic cat then most likely came to Europe via the Romans (Ottoni et al. 2017:5). It is possible

the Scandinavian variants of the word for "cat" (S: "katt", N: "katt", D: "kat", I: "köttur") even came from the Latin "catus" (Colling 1986:193).

The oldest known domesticated cats in Scandinavia are from Roman Iron Age (c. 200 AD) graves. One is an adult cremation grave in Denmark (Kastrup, Southern Jutland) where it is believed the single cat bone (an astragalus with cut marks) was likely used as an amulet, together with a perforated sheep astragalus that was also found (Bitz-Thorsen and Gotfredsen 2018:2). The others are from Sweden: a double inhumation grave in Överbo, Västergötland, which contained an adult cat and a kitten (Boessneck et al. 1979:176; Andersson 1993); cremation graves in Skå-Edeby, Uppland, and Gamla Uppsala Berget, Uppland; and another single inhumation in Gärdslösa, Sörby-Störlinge, Öland.

In the Migration Period, the domestic cat is found again in Scandinavia, this time Norway is included. It not until the Viking Age, however, that the dramatic uptick in domestic cats in Scandinavia happens. This is likely due to the great amount of travelling and trade occurring across Europe, including Scandinavia, at this time, with cats likely jumping aboard ships. When the Middle Ages were in full swing with large cities in place, the domestic cat then truly flourished (Colling 1986:195).

5.2. Medieval Literary and Folklore References

As the Norse Pagans encountered and brought cats back home, it is clear a special significance was placed on them. The medieval Icelandic literary sources contain several references to cats. These references span everything from the Eddas to the sagas, to the law codes (see **Table 3**). Cats also occur later in 17th century magic books and even in popular modern-day Icelandic folklore. In most of these references, the cat is either a magical creature or is prized for

its fur, which is also likely for a magical purpose. The other references are to female sexuality, which can be argued for a magical connection since the cat has a special connection to the goddess Freyja, who was also sexualized by medieval Icelanders.

The literary references used are the following (see **Ch. 4** and **Appendix B** for descriptions):

Table 3. Icelandic Literary References to Cats

Icelandic Title	English Title	Type of Text	Useful/Not Useful
Snorra Edda	*Prose Edda*	Prose Edda	Useful
Helgakviða Hundingsbana	*The First Poem of Helgi Hundingsbane*	Poetic Edda	Useful
Orkneyinga Saga	*The Saga of the People of the Orkneys*	Kings´ Saga	Useful
Heiðarvígasaga	*The Saga of the Heath Slayings*	Family Saga	Not Useful
Orms þáttur Stórólfssonar	*The Short Saga of Orm Stórólfsson*	Family Saga	Useful
Vatnsdæla Saga	*The Saga of the People of Vatnsdal*	Family Saga	Useful
Eiríks saga rauða	*Eirik the Red's Saga*	Family Saga	Useful
Grágás	*Grey Goose*	Law Code	Useful
Galdrabók	*Book of Magic*	Folklore	Useful

5.2.1. Magic References

The most famous reference to cats in Norse mythology is that of the goddess Freyja. Known as a fertility goddess (Turville-Petre 1964:177), Freyja had a cart drawn by two cats (Snorri's *Gylfaginning/The Tricking of Gylfi* Ch. 24-25; 49). Since this is a physical impossibility, it is likely this represents the cat's role as a guide to either spiritual and/or underworld realms (Dobat 2006). Freyja was also known as a shapeshifter and a magician (Price 2019:294), which is another argument for the cat's role as a spiritual guide.

Medieval Icelanders would have associated cats with Freyja, as Snorri's *Skaldskaparmal/The Language of Poetry* Ch. 20 states that tomcats (*fressa*) are a kenning for her

name. As noted earlier, a kenning is a poetry tool similar to a metaphor. Tomcats are sexually mature males that are known for being loud, libidinous, and territorial. Freyja was sexualized and even made a "sexual deviant" by medieval Icelanders (Darnton 1984:92; Davidson 1993:107). This was likely not the case for the pagan Norse who worshipped her. But her association to cats still likely had to do with fertility and female sexuality (Prehal 2011).

Regardless, to call a man a cat, in both the pagan and Christian worlds, would be emasculating (*Orkneyinga Saga* Ch. 15, *Heiðarvígasaga* Ch. 12, and the Eddaic poem *Helgakviða Hundingsbana* verse 18), since the cat was connected to the goddess. One could argue that the docility and meekness of a cat or kitten would be what is insulting, but below we will see that the cat is not so clear cut.

The next magical theme associated with cats is again found in Snorri's *Gylfaginning*. Here, the reference is to the binding of the trickster god Loki's monster child, Fenris wolf. In Chapter 34, Fenris is trouble for the other gods, who decide to bind him. As Fenris is a magical being, he requires extraordinary materials to keep him bound. Several magical materials are used to make his fetter, one of which is the sound of a cat walking. Of course, cats do not make sounds when they walk, which makes this a myth of explanation. Why do cats not make sounds when they walk? The sound is being used to keep the Fenris wolf at bay.

But why is a cat's walk something that requires explanation? It must have been quite obvious that cats are very quiet so they can sneak up on prey. However, cats are mysterious animals, as they are not fully domesticated. They have almost human-like personalities; being standoffish and independent while also desiring affection. This gives them a magical quality, and this is what requires explanation. Why are cats so mysterious? They are magical creatures who are literally partially in the human world and partially in the supernatural realm. Interesting to note is

that another ingredient in the fetter is a woman's beard. Perhaps it is not a coincidence that women and cats are referenced as magical together?

Chapters 46-47 of *Gylfaginning* also places cats in the supernatural realm. In this story, the gods Þór and Loki are travelling in the realm of the giants, Jötunheimr. Here they come across the king of the giants: Útgarða-Loki. To be permitted to stay at the king's castle, they must perform some feats. One of the feats Þór must perform is to lift a large gray cat. This seems to be a suspiciously easy task, and yet he cannot he do it. He is only able to get the cat to arch its back and lift one paw. Of course, this is a trick by Útgarða-Loki. In reality, the cat is a disguise for the world serpent, Jörmungandr. Jörmungandr, like Fenris wolf, is also a monster child of Loki and is so large that he wraps himself around the entirety of the world and bites his own tail. When Jörmungandr releases his tail, Ragnarök (the end of the world) begins. Þór, therefore *had* performed quite a feat, as he was able to life the world serpent into the air.

Here, there is more to the cat than meets the eye. The cat seems to be a docile and easy to understand animal, yet this story suggests that is not the case. Rather, the cat is a complex and confusing creature: it has both a docile and civilized side as well as a chaotic and magical side. Not only is the cat a literal disguise for a larger than life magical creature, but the story also takes place in a magical realm. Again, suggesting the mysteriousness and otherworldliness of the cat.

Útgarða means wild country, hinterlands, outside of civilization: a place of chaos and confusion (Meletinskij 1973; 1974). It is logical that the king of the chaos land would be named Loki, as well, for he is also a trickster. Although this is a wild country, it still has some organization to it, as there is a king. This implies again that cats have a foot in both the human (civilized) and supernatural (chaotic) worlds: they bring a little bit of the wild, magical realm into the civilized home.

Also, interesting to note is that this is the second association with Loki's monster children. Perhaps this suggests the cat's association with chaos, death, and destruction, as well. Both the Fenris wolf and the Jörmungandr world serpent are monsters who bring about the apocalypse and kill the gods.

In Snorri's *Þulur Skaldskaparmal/Rhymes in The Language of Poetry* (*Þulur IV b 5 (421)*), "cat" is also used as a kenning for "giant". Giants are the chaotic and wild beings in both the human and supernatural worlds, which also evidences cats as being agents of death and destruction. In *Orms þáttur Stórólfssonar* Ch. 6-7, a giantess mother takes the form of a large black she-cat. This cat was a terrifying monster, also, as fire spewed from her mouth and was capable of swiftly killing many men. *Vatnsdœla Saga* Ch. 28 also describes black cats as monstrous. In this story, an evil Icelandic magician has 20 huge black cats that he enchanted with sorcery to do his bidding. After the evil magician was defeated, fear still surrounded his home because the cats that were still there.

A remnant of this story is seen in the 17th C. legend of Reverend Eiríkur of Vogsósar, known as the "White Wizard." In this legend, a dark magician sends a magical cat to kill the good magician, Eiríkur. Eiríkur is prepared and is able to kill the magical cat (Jón Árnason 1975:67). This story has elements that have also carried on even into modern Icelandic folklore: Grýla the troll woman and her large black Christmas cat, Jólakötturinn. This is strangely a Christmas tale that says if children do not get new clothes for Christmas, then the Jólakötturinn will eat them (Jóhannes úr Kötlum: 1932). The main elements that are kept and passed on are the evil supernatural being and their large magical black cat.

The magic of the cat's physical body has also survived into the medieval and post-medieval periods in Scandinavia and Iceland as parts of magical spells. The Medieval Icelandic Lawcode (*Grágás* Ch. 16) outlaws the consumption of cats (along with dogs, horses, foxes and carrion

birds). These are not typical food animals (except for the horse), which suggests that this rule might actually refer to the use of these animals in magic rituals (in which the horse is known to be used).

In 16th and 17th century Iceland, we find several references to magic spells that require some part of a cat's body. For example, cat feces could be used for hair growth (Ólafur Davíðsson 2015:271); cat fur could be used in a thief-finding spell (Flowers 1989:97); and cat paws could be used to create shape-shifting/illusion enchantments (Flowers 1989:103), which harkens back to Freyja and her shape-shifting abilities. In Late Medieval Swedish folk magic a main ingredient in love spells was the head of a cat (Mitchell 2011:58-59; 233).

5.2.2. Fur References

The cat is also mentioned in the literature for its fur value. The law codes list it as a type of currency (*Grágás* Ch. 246), "Two skins of old tomcats are worth one ounce-unit, three from cats one summer old are worth one ounce-unit" (Dennis, Foote, & Perkins 2000: 207).

In *Eiríks saga rauða* Ch. 4, we meet a renowned Norse pagan prophetess named Þorbjörg Lítilvölva in Greenland. She was revered by her Norse Greenlandic community and would read them their fortunes. When we meet her, the community in Greenland is on hard times, with food shortages and lost hunters. Þorbjörg goes to visit a powerful farmer to make a prediction. What is interesting here is the detailed description of what she is wearing and what she carries with her:

> *"About her neck she wore a string of glass beads and on her head a hood of black lambskin lined with* **white catskin***… About her waist she had a linked charm belt with a large purse. In it she kept charms which she needed for her predictions. She wore calfskin boots lined with fur, with long sturdy laces and large pewter knobs on the ends. On her hands she wore* **gloves of catskin, white and lined with fur**.*"* Kunz 2001: 658, my emphasis.

The author is sure to mention that her hood and gloves were made of white catskin and fur. There is a clear connection here between the shamanic like practices of the prophetess and those of Freyja (Hayeur-Smith 2004:90). “The link between cats and the goddess [Freyja] has not been satisfactorily explained, but the gloves made of cat-skin, white and furry inside, mentioned in the Greenland account, suggests that cats were among the animal spirits which would aid the *volva* (sorceress) on her supernatural journey” (Davidson 1964:120). The idea of cat fur as a piece of ritual clothing has been brought up before (Prehal 2011:20;28). Neil Price (2019:1107-1108) has suggested that bear and wolf skin were used as ritual garments in shamanic magic. Perhaps cat fur also played a similar role.

On display at *The Museum of Icelandic Sorcery & Witchcraft* (*Galdrasafnið á Hólmavík*) in Hólmavík, Iceland, are some cat skins that were utilized in 17th century spell books. One that is most prominent is the skin of a black tomcat which was used as a canvas for magic signs inscribed with virginal menstrual blood. "The cat skin vellum is connected to a magic to make oneself rich with the aid of a small sea creature" (Magnus Rafnsson 2019: pers. comm.).

5.3. Archaeology of Cats in Graves

5.3.1. Results and Analyses

This case study is a continuation of research done for my master’s thesis, *Freyja’s Cats: Perspectives on Recent Viking Age Finds in Þegjandadalur North Iceland*. In the summer of 2010, excavations at a Norse pagan grave field in the North of Iceland yielded some interesting results. Named Ingiríðarstaðir, this grave field had some unusual aspects to it: namely a turf wall structure of which the function is unknown.

Under this turf wall were three large pits. The two outer pits were empty but in the center pit were unburnt animal bones and human skull fragments. Of the animals present was an almost

complete skeleton of a cat. The human skull fragments showed signs of blunt force trauma suggesting a blow to the head was the cause of death. These unusual finds led to looking into literary sources in an attempt to answer what might have been going on in this grave field (see **Appendix D**).

I have since expanded this research and was able to find 174 individual Swedish graves (see **Appendix G**), 4 Norwegian graves (see **Appendix E** , and 3 Danish graves (see **Appendix F**) that included cat remains. 92% of the Swedish graves are from the Iron Age, 46% of which were definitively from the Viking Age. The Viking Age is by far the time period where we see the most occurrences of cats in Swedish graves. The numbers for Norway and Denmark are too low to make any kind of comment. It is not clear if the numbers in Norway and Denmark are so comparatively low because these areas just did not have the same relationship with cats as the "Swedes" did or if it is simply a lack of available information.

*The **Swedish** material:*

As mentioned earlier, the Swedish material by far outweighed the other countries, whether due to the Swedes affinity for felines or simply due to a lack of available records from Denmark and Norway. Therefore, the Swedish material was analyzed. Running a search on Sweden's *Historiska museet*'s database for "katt" (Swedish for "cat") came up with 707 individual bone registers. This means that they have on record 707 individual cat bones but does not specify how many actual individual cats this number makes up. Doing a search for "felis" (Latin for "cat") on the same database came up with 208 individual bone registers. Combined, this is 915 hits. Of these hits, a minimum of 174 came from graves.

The 174 represent at least one cat, so there is a minimum of 174 cats in 174 individual graves. The database has 8301 registered graves in Sweden from the Stone Age through the Middle

Ages (modern and post-modern were not included). Of these graves, 651 are from the Stone Age, 1032 from the Bronze Age, 6622 from the Iron Age, 175 from the Middle Ages, 115 that are Undated. 225 of these are multiple period use. The data on cats would suggest that there is a huge uptick in their occurrence in Swedish graves in the Viking Age, however that could be due to the fact that there is such a higher number of Iron Age (and Viking Age in particular) graves excavated/investigated than the other time periods.

If we do not count the discrepancy in the number of graves excavated/investigated by time period (see **Fig. 1**), then there would appear to be a massive increase in cats in the Iron Age, in particular the Viking Age (see **Figs. 2-3**). If this uptick reflects reality, then the explanation would be that a lot more travel to and contact with the East happened during the Viking Age. This contact would have given the Norse much more frequent interaction with the domestic cat than before.

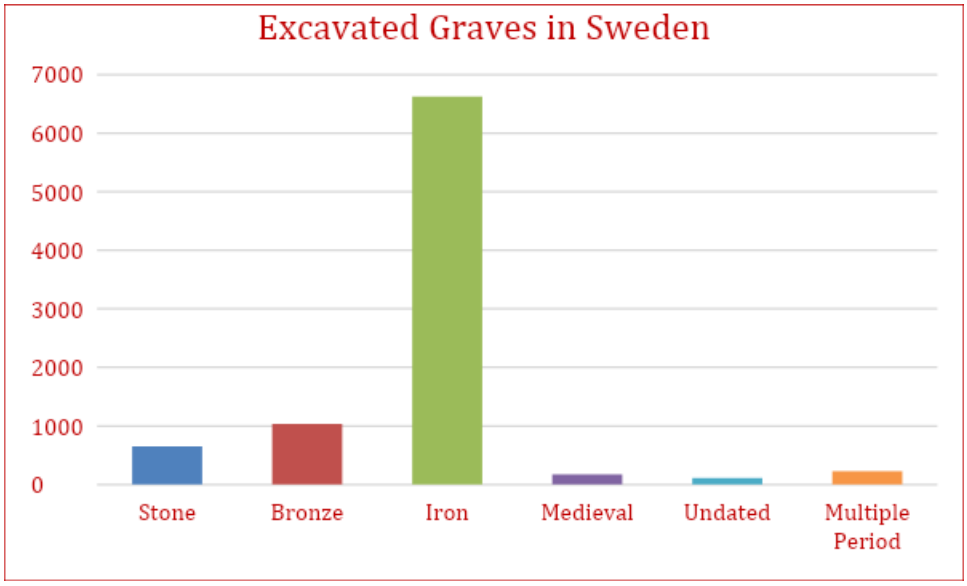


Figure 1. Excavated Graves in Sweden by Time Period

As the relatively large number of cats found in graves were found in Sweden, perhaps this had to do with Sweden's connection to the East. As the Norwegians and Danes went West, the Swedes went East for trade. Conceivably their encounters with the cats while in the East can account for this disparity in numbers. Or it just could be due to the lack of good recording on the part of Norway and Denmark.

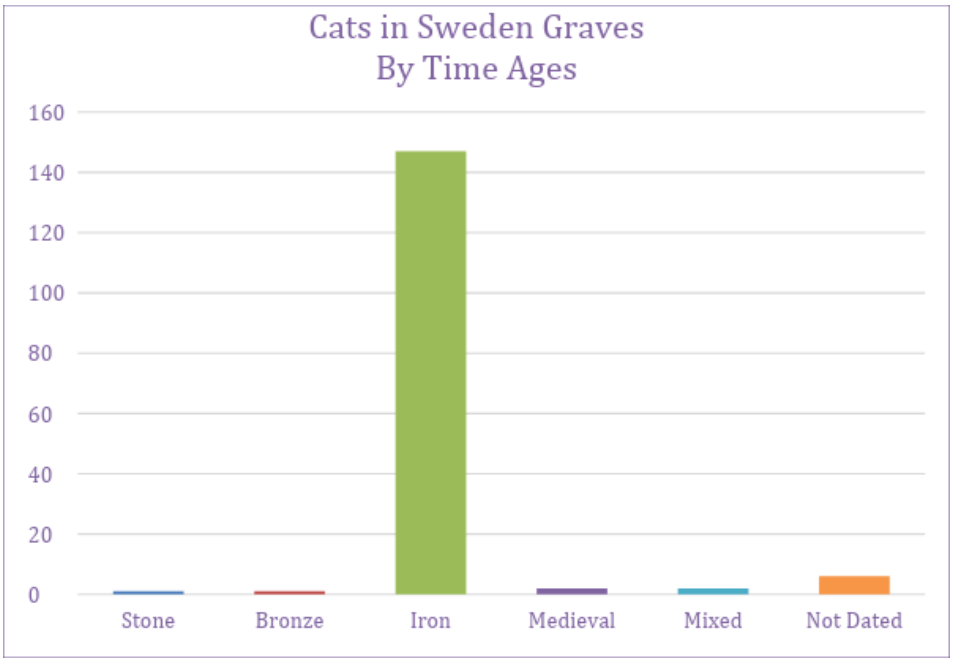


Figure 2. Excavated Swedish Graves with Cat Inclusions by Time Period

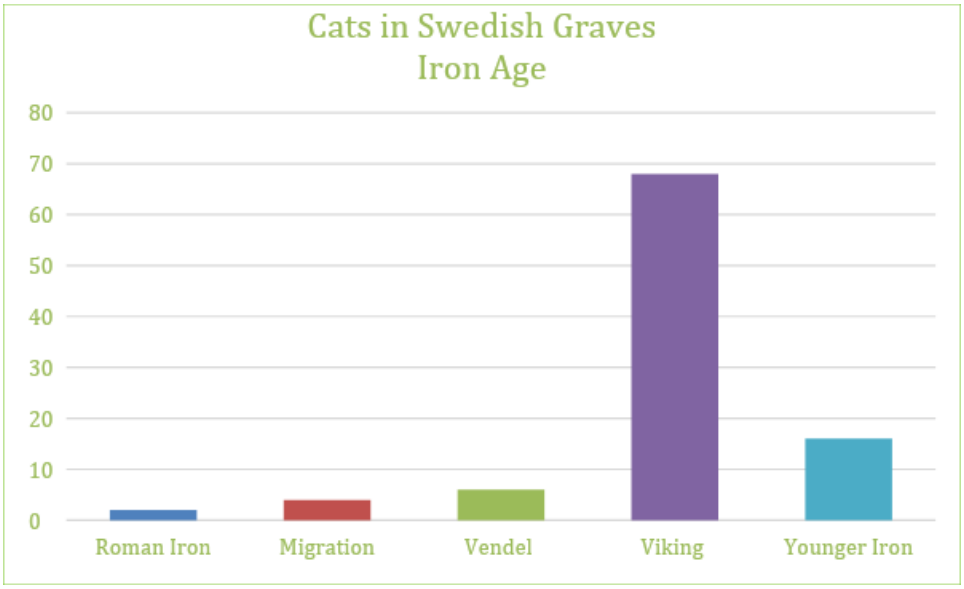


Figure 3. Excavated Swedish Graves with Cat Inclusions within the Iron Age

The different types of burials (see **Fig. 4**) that cats were found in are cairns, cists, mounds, stone settings, unknown, and other (such as boat burials). The unknown category (where type of burial is unknown) is by far the largest, unfortunately. Most likely these unknowns represent regular flat and unmarked graves in grave fields, but there is no way to know. The next highest category is stone settings followed by mounds. The stone settings and mounds also reflect the late Iron Age (Migration Age – Viking Age), and again this could also be due to it being the time period most investigated.

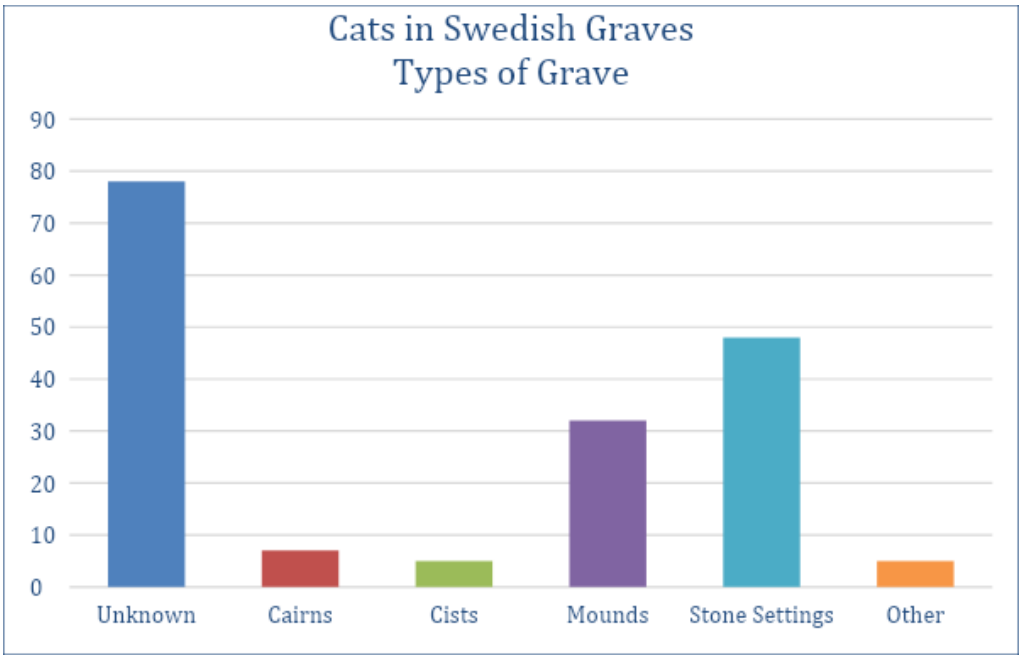


Figure 4. Excavated Swedish Graves with Cat Inclusions by Grave Type

The story for cremation versus inhumation (**Fig. 5**) also seems to be related to the predominance of the Iron Age graves. There is a significantly higher number of cremations that had cats as inclusions than inhumations (and unknown or mixed). Again, the Iron Age, and the Viking Age particularly, saw a popularity in cremation burials over the inhumations of the earlier and later periods (Price 2008:259).

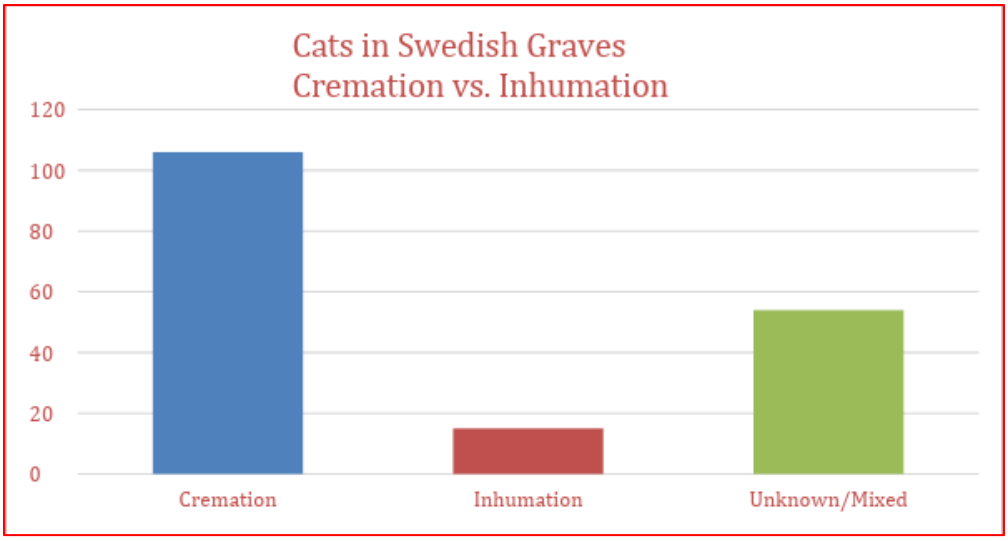


Figure 5. Excavated Swedish Graves with Cat Inclusions by Cremation vs. Inhumation

Of the 174 graves with cats, 41 of them contained only cats and no other animals (23.5%) (**Fig. 6**). The majority of the 174 graves also contained dogs (60%), followed by horses (36%). Individual animal combinations were not done due to time limitations as well as little to be gained from such analysis.

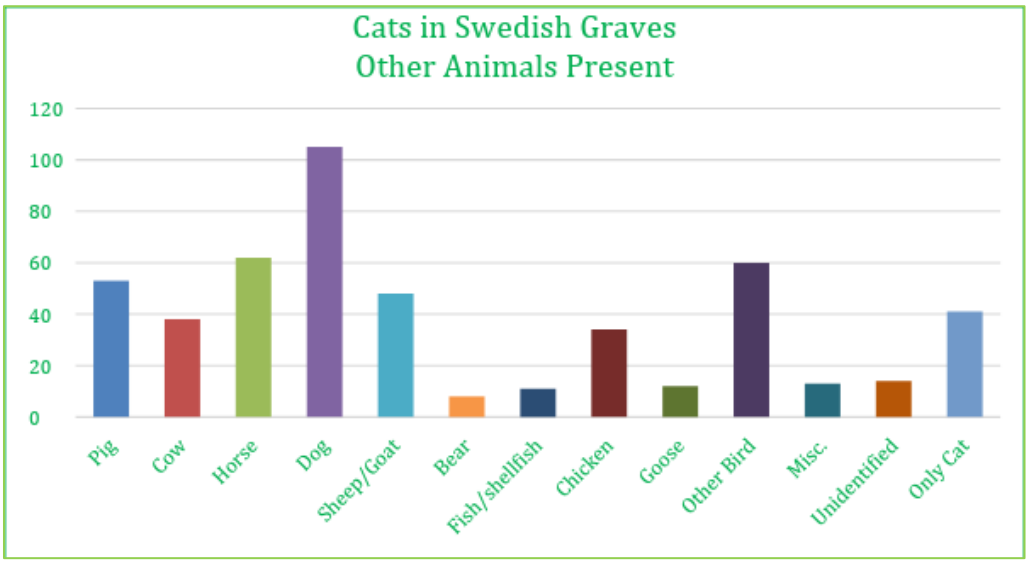


Figure 6. Excavated Swedish Graves with Cat Inclusions by Animal Inclusions

Only 27 of the 174 graves record what type of cat bones were present (**Fig. 7**). The spread of body parts seems to be fairly evenly distributed. However, there is also the problem that most of the graves were cremations, so it is hard to tell what might be missing due to loss between the burning process and the transfer to the urn. The hindquarters make up the largest group of bones (21%) with the second largest being the feet (19%), which would suggest skins or furs. However, there is too little information to make any definitive statements. It would have been ideal to be able to look at sex, age, and artifacts in relation to what might be considered cat skins, but again, the numbers just do not allow for that.

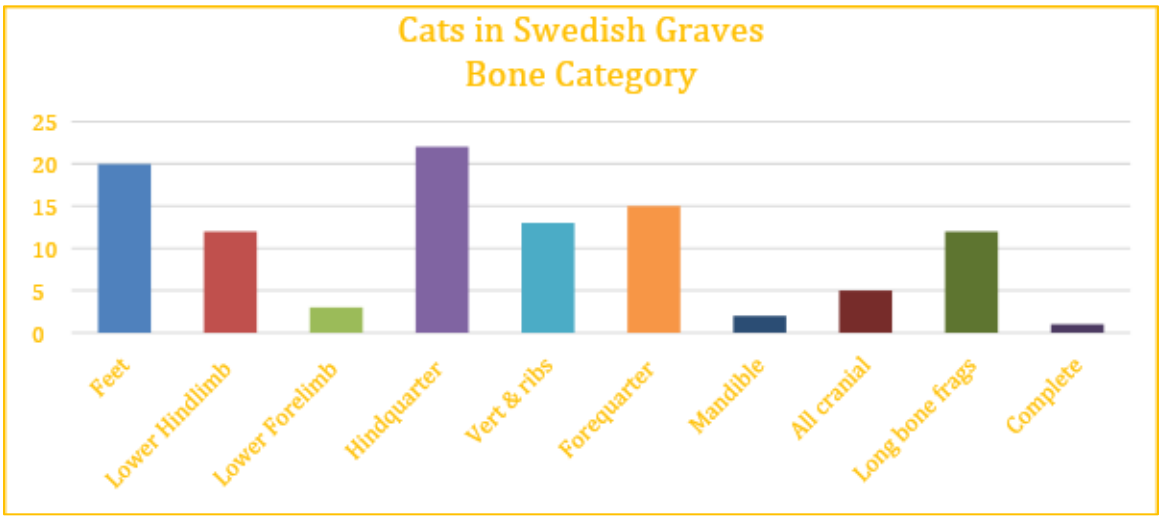


Figure 7. Excavated Swedish Graves with Cat Inclusions by Cat Bone Type.
Feet: phalanx, metapodial; Lower Hindlimb: tarsals, metatarsals; Lower Forelimb: carpals, metacarpals; Hindquarter: femur, tibia, fibula, pelvis, coccyx; Forequarter: scapula, humerus, radius, ulna

Of the artifacts present in the 174 graves with cats (**Fig. 8**), the largest category is miscellaneous, which includes things such as nails and skews the numbers. The largest category that says anything of note is that of jewelry. This might suggest a higher number of female graves, but the upmost caution must be taken when assigning biological sex with only our modern

gendering of artifacts. The second largest category is that of tools, which do not have gender assignments.

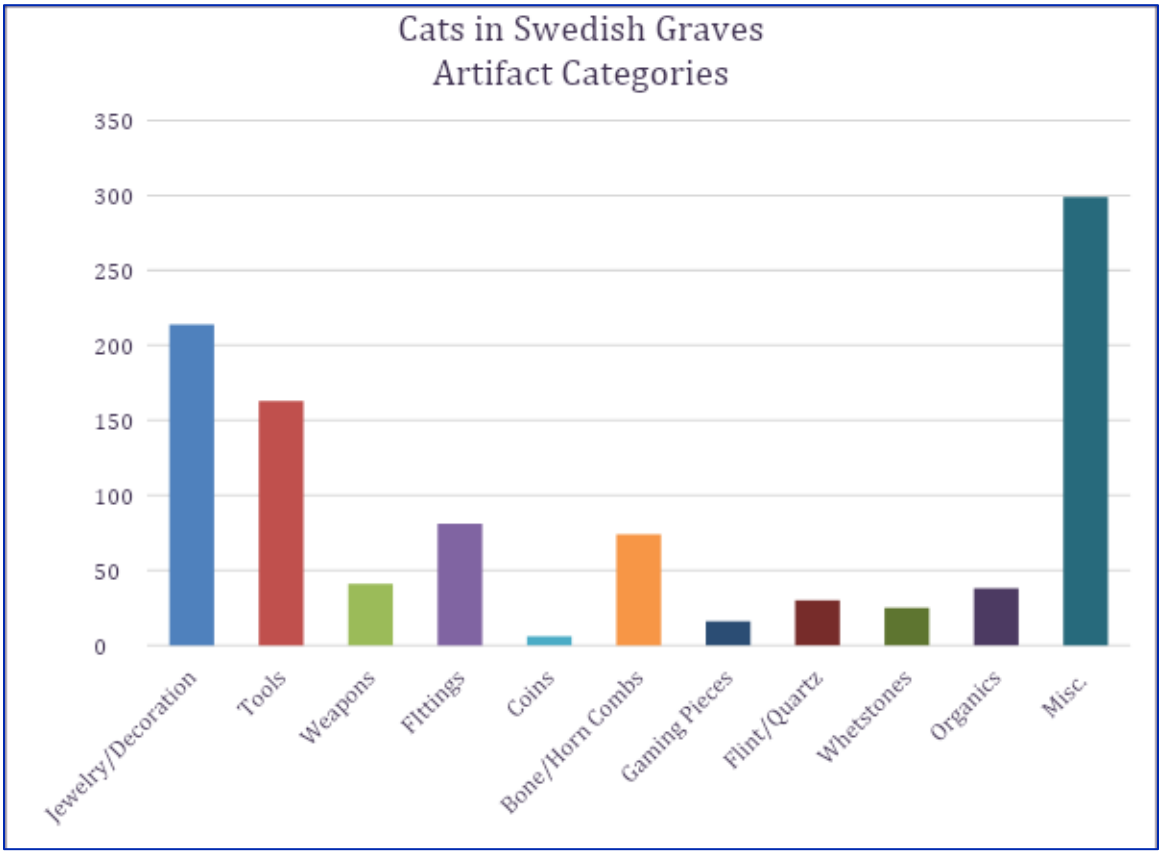


Figure 8. Excavated Swedish Graves with Cat Inclusions by Artifact Type

Again, as the highest number of graves investigated come from the Iron Age, it is no surprise that the majority of the material artifacts are made up of iron (**Fig. 9**). This is a very common metal during this time period and does not suggest wealth or poverty either way. However, there is a low number of precious materials such as gold and silver, which suggests more cats were more frequent in common graves over high social status.

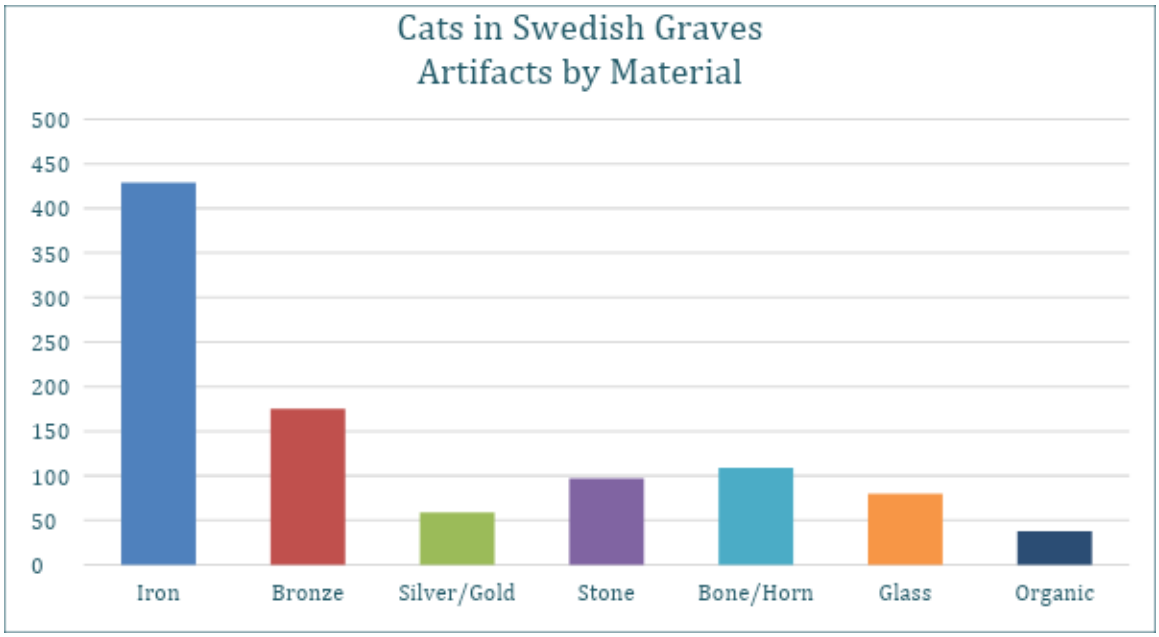


Figure 9. Excavated Swedish Graves with Cat Inclusions by Artifact Material

Of the 174 graves with cats, only 32 had information on the human skeletal remains. Of these, 15 graves contained biological males (47%), 9 biological females (28%), and 3 with a mix of both sexes (9%). These numbers might suggest a lean towards males, similar to Andersson's 1993 thesis. However, like hers, the sample size is much too small to make any definitive statements about sex and cat inclusions.

However, the human skeletal material did suggest a lean towards adults. Most were over the age of 18 (32), with only 5 infants and 4 juveniles. Some of these were mixed ages, with 2 being an adult and infant and 1 being an infant and a juvenile. Of the adults that had specific ages, the majority were between 18 and 44. Most of the graves (26) with known human skeletal material were single graves and only 7 were multiple burials.

Most of the graves had quite a few things in them. However, these artifacts are mostly jewelry and everyday objects, such as tools or fittings and nails for various objects, such as wooden boxes.

The data might suggest that most people that were buried with cats were younger adult males with moderate social status. However, this is HIGHLY unreliable as there are many data that are unavailable and missing. What can be said, though, is that cats were more often than not buried with at least one other animal (likely a dog). Also, cats tend to come with moderate social status burials. Also, although there is a high number of cats in Swedish burials in comparison to other Nordic countries, the number of cats compared to dogs (3506 total hits for "hund" and "canis") or horses (4152 total hits for "häst" and "equus") is still quite low.

5.3.2. Archaeology of Cats in Other Ritual Contexts

Other contexts, ones considered ritualistic by most scholars, have also been included in this case study: cult houses, foundation deposits, and bog votives. In this category, I have also included sites that have evidence for cat-skinning and fur production on the basis that I believe cat fur might have been part of ritual clothing.

The time periods span again from the Stone Age up until the Middle Ages. The Stone Age saw wildcat fur processing, as well as a wildcat burial with ritual activity. Votive bog deposits of cats have been found from the Bronze Age and the Iron Age. The Iron Age also saw domestic cats as foundation deposits for common houses as well as being found in cult houses. The Late Iron Age and Middle Ages saw a much larger scale production of fur evidenced by cat-skinning pits.

As mentioned earlier in this chapter, cat fur was a possibly ritualized piece of clothing. Denmark (see **Appendix F**) had at least 4 large cat-skinning sites dated to the Viking Age and the early Middle Ages. Iceland (see **Appendix D**) had one site, the cult house Hofstaðir in the north (McGovern 2009 et al. :221, 249). Sweden (see **Appendix G**) had at least two sites, Sigtuna (Hårding 1990:107; Wigh 2011:119) and Gamla Lödöse (Colling 1986:196) and Norway had one at Kaupang (see **Appendix E**).

5.4. aDNA

5.4.1. Results

The Icelandic cat skeletal material from both Hofstaðir and Ingiríðarstaðir were sent to Dr. Eva-Maria Geigl at the *Institut Jacques Monod* in Paris for genetic analysis. Geigl and her team are working on creating a system for determining coat color in cats. The results would potentially be able to tell us what color the cats from Iceland were. Below are her preliminary results (Geigl et al. 2019):

> *"**Results***
> *DNA appeared to be poorly preserved in the bones from Hofstadir and Ingridarstadir. Nevertheless, five specimens could be genotyped concerning their mitochondrial haplotype. As expected, they belonged to clade IV, i.e.,* Felis silvestris lybica*, and were therefore domestic cats. Surprisingly, they were all carriers of lineage IV-D, an ancient lineage that occupies a basal position in clade IV and is very rare in present-day cats.*
>
> *Since DNA preservation in these bones was poor, only one result of the analysis of nuclear markers was obtained so far. Indeed, the cat to which sample HST400 belonged, carried the dominant mutation 1035-1036 (GC>CA) in the gene* KIT*, which means that it had white paws ("gloves").*
>
> ***Perspectives***
> *We are now improving our capture assay, in particular the competition with the repetitive genomic fraction (Cot1) of modern cat DNA. This shall allow us to obtain more results from these poorly preserved samples. Moreover, to increase the success rate, we also are about to analyze the remaining samples and reanalyze those that have been analyzed already."*

5.4.2. Importance of Color

Why conduct aDNA analysis on cat coat color? The cats described in the literature in magical contexts, often are noted to be of a particular color. The majority of the cats referenced in the Icelandic literature describe black cats. The other references to color are to gray and white. If the cats from Hofstaðir and Ingiríðarstaðir are in fact white or black, this would emphasize the

importance of color in the pagan worldview. There is more to fur color preference than just pure aesthetics. “A color never occurs alone; it only takes on meaning, only fully ‘functions’ from the social, artistic, and symbolic perspectives, insofar as it is associated with or opposed to one or many other colors” (Pastoureau 2008:12). Therefore, a brief discussion about the importance of color is needed.

Humans have developed color categorizing systems for a very long time. A study by Berlin and Kay (1969) found that in language development, the basic terms for color do not appear randomly, but rather they occur in a uniform seven-stage sequence. The first stage is the pair of black and white. There has to be a pair because color is seen in the opposition of other colors. The second stage is the inclusion of red. Adding yellow followed by green or vice versa is Stage III and IV, with Stage V adding blue. Stage VI adds brown and Stage VII adds pink, purple, orange and gray (Wolf 2009:222; Berlin and Kay 1969).

Kirsten Wolf (2009:223) has found that “Old Norse-Icelandic has eight basic color terms (*svartr [black]*, *hvítr [white]*, *rauðr [red]*, *grœnn [green]*, *gulr [yellow]*, *blár [blue]*, *brúnn [brown]*, and *grár* (*gránn*) *[gray],* making it an early stage VII language” in Berlin and Kay’s sequence. This would make Old Norse-Icelandic part of an advanced culture, as far as such designations can be used objectively.

The terms for colors do not just function as practical categorization words but are rather multi-vocal. Colors are loaded with symbolism, in fact, “all societies are concerned about colour, and such concern can be traced back to at least the Upper Palaeolithic, if not before… Colour awareness and colour sensitivity must however be an integral part of any archaeological analysis concerned with the development and nature of human cognition” (Gage 1999:109). Pastoureau (2008) elaborates that:

> *"Any description, any notation of color is cultural and ideological, even when it is a matter of the most insignificant inventory or the most stereotypical notarized document. The very fact of mentioning or not mentioning the color of an object was quite a significant choice reflecting the economic, political, social, or symbolic stakes relevant to a specific context. Equally significant is the choice of the word that, rather than some other word, serves to express the nature, quality, and function of that color."* (Pastoureau 2008:15)

In 1967, Victor Turner (1967: 89) defined an almost-universal symbolic color triad as being made up of black, white, and red in his definitive work, *The Forest of Symbols: Aspects of Ndembu Ritual*. Turner suggests these three colors are so universal in symbolic use because they relate to bodily fluids/functions: white for semen and milk, red for blood, and black for loss of consciousness. In most cases, white symbolizes fertility and purity, red for power and life (both good and bad), and black for death. However, some cultures use red or white for death, but the main triad does not waiver. This relates to Stage II in the Berlin and Kay color sequence, suggesting that this triad is quite old and also a necessary early component in language development. According to Dumezil (1973:124), the white, black, and red color scheme is also associated with social classes. This tradition is very old, as well, as seen with Romans and Hittites. In this schema, white was for the priestly class (sacredness), red for warriors (force), and black/dark blue for the farmers (fertility).

The colors of discussion here are black, white, and gray with black and white being a very ancient symbolic schema (Stage I). We will begin with "black". Black is the color of creativity: the darkness before the creation. This is seen not only in European myths, but also in Asian and African ones as well (Pastoureau 2008:21). This is especially clear in the Norse creation myth, starring Ginnungagap: a vast, black, gapping void where the fires of Muspelheim and the ice of Niflheim meet and spark life.

Black, is also associated with the fertility that springs forth from the darkness. Fertile soils as well as dark and heavy rainclouds are seen as black. Ancient mother goddesses and fertility deities are therefore often associated with black, such as Cybele, Kali, and Isis. These fertility deities either have dark skin, carry dark objects, or command black animals (Pastoureau 2008:21-22). Ancient Egyptians equated black with fertility (Gage 1999:116).

Dark places were also associated with fertile black, such as caves and chasms, and are the oldest sites of human worship. The Paleolithic cave paintings, such as Maros-Pangkep (37,900 BC) in Surawesi, Indonesia, El Castillo (38,800 BC) in Puente Viesgo, Spain, and Chauvet (30,000 BC) in Ardèche, France are prime examples of dark places as centers of very early human symbolism, ritual, and spirituality. These dark places of the earth are also where our earliest ancestors believed spirits resided as well as where one could access the Underworld, as famously seen in Greek Mythology. Meso-American cenotes (sinkholes) and caves are also great examples of humans equating supernatural forces, fertility, and creation with darkness (Heyden 1975:134).

In contrast, black has also been a source of human fear and likely stems from before we first learned to harness the power of light, via fire. Darkness is menacing because of predators or rivals that may be lurking unseen. As mentioned earlier, black is also often the color of death. The Norse goddess/monster of the Underworld is named Hel. She is half black and half pallid. She is ambiguous, black like the darkness but also pallid like ghosts and mist. However, unlike the Christian version of the Underworld realm of "Hell", death was not something entirely foreboding, but rather something natural.

Dumezil's (1973:124-125) black in the 3-tiered class system is reserved for the lower class, as seen in the Eddaic poem of *Rígsþula*. Here, the slave class (*þrall*) is described as black and gnarled, with the farmer (*karl*) being red of cheek, and the chieftain (*jarl*) being bright white. This,

again, is not necessarily a bad thing as this lower class is associated with the essentials of life: fertility.

The black cat could have been an extreme pagan fertility symbol, as both the color black and cats are fecund. Black cats to pagans could have been a manifestation of the wild encroaching on civilization: the blackness of the unknown (or primordial creation) or death or fertility, as cats are only half-domesticated. Also, in the Late Middle Ages, black clothing was for poor people or doing dirty chores, except when it was animal fur, as the sable was considered the most beautiful of furs (Pastoureau 2008:26).

It is not until the midst of the Middle Ages, with Christianity fully established in Europe and Scandinavia, that the fertility of black changes. Christianity views black as bad as it stands for primordial chaos (rather than creation), a place without the light of God. Black, to Christianity, is therefore associated with sin, death, destruction, evildoers and the devil. It is well known that black cats have long been associated with the devil in Christian lore (Clutton-Brock 1993:51-52; Pastoureau 2008:30-32;56).

As the black cat is portrayed negatively in the medieval Icelandic literature, this is likely a Christian association with the devil and evildoers, who practice "sinful" pagan magic. In fact, the only mentions of black cats come from somewhat reliable sources either because they have heavy Christian influences and/or they are post-medieval. However, that is not to say that there is not a kernel of truth here. The Norse fertility goddess Freyja was demonized by Christianity. As her close and special animal, the cat was demonized alongside her. This pagan fertility is what the Christian writers could have wanted to portray as bad (Darnton 1984:92; Ellis Davidson 1993:107). Perhaps over time, the black coat color was added or changed from another color later in an effort to further demonize the goddess and her familiars.

White, on the other hand, has also been the focus of darkness: its antithesis. Ancient Egyptians saw the color white as symbolic of light and purity and also with death, and light-emitting celestial bodies, as they preferred sparkling white stones for their tombs and temples (Gage 1999:116). Ancient Greek poetry (early 5th C. BC) also correlates the color white to light (Gage and Shanes 1994:11). To medieval Christians, white also symbolized light, which in turn meant the light of God and Christ. Indeed, even the Icelandic literature understood this, as heathens referred to "White Christ" due to the newly baptized wearing white robes (Morey Sturtevant 1952:119-120).

White is also associated with death in some cultures, as in Borneo, because it represents the pallor of death and the whiteness of bones (Huntington and Metcalf 1991:63). White shells and quartz are found in the earliest human burials scattered all over the world (Gage 1999:121). White stones covering large Neolithic passage tombs in Ireland also suggest a connection with death (which will be discussed further in the next chapter about quartz).

Hoftun (1997) and Carlie (1999) both argue that the color white was sacred to the pagans of Scandinavia. Both contend that white was a color of cosmic fertility because of its association with water, clay, and eggs. White is seen in the literature as sacred as well as in archaeology, such as the "holy white stones" found in graves. "Whiteness in an artefact or material was the sign of particular internal forces. In other words, sacredness showed itself through the white colour, and when the Sacred appeared to man, contact and communication with the gods was made possible (Eliade 1968:8f. and 20 f.)" (Carlie 1999:57). Dumezil (1973:124-125) adds that the color white is also associated with magic, Oðinn, war, and the priestly class. As seen from the literary example in Ch. 5.2.2., white cat fur was part of the prophetess Þorbjörg's magical attire. White could

therefore also be associated with the practice of magic by the goddess Freyja, as would explain Þorbjörg.

Þorbjörg was not alone in wearing white cat fur in the Iron and Middle Ages. The color white seems to have been of importance when it pertained to cat fur, as "The demands of the fur industry lay behind this trend, furriers paying substantially more for white pelts" (Wigh 2011:120). However, left to themselves, cats will usually produce offspring with dark colors (Colling1986:196). In fact, the most frequent cat coat is the tabby pattern, which is "blotchy grey with black, tawny-ochreous, and lighter coloured spots and stripes" (Clutton-Brock 1999:135). Therefore, selective breeding for white coats took place.

Viking and Medieval Ireland, for example, has evidence for selective breeding specifically for white or white-breasted cats for their fur (McCormick 1988:221, 227). We know that white cat fur was also selected for breeding in Sweden, with the earliest documentation from the 16th century (Colling 1986:196). Iceland was also supposedly known for its white cat fur (Andersson 1993:30 after Bernström 1963).

Colling (1986:196) says Snorri may have changed the word "*vitskinn*" ("white skin" to "*kattskinn*" ("cat skin") when describing Þorbjörg's dress because that is what he was familiar with. This is a possibility, as white cat fur would have been known to him, especially if it was popular in Iceland. However, as we see from the aDNA, we know that Hofstaðir at least had cats with white paws. So, it is possible that the white cat and its fur were indeed part of ritual clothing for pagan Norse, as the literature suggests.

The last color associated with cats in the literature is gray. Wolf (2009:238) argues that gray is actually a "wild card" and should be included in the earlier stages of development (either III or IV) for Old Norse-Icelandic. Gray is most associated with wolves in the literature. This

association makes the word “gray” not only a synonym for wolf but also for “hostility” (Wolf 2009:235). Gray horses were also foreboding as they were the steeds of death-related apparitions (Turville-Petre 1964:57).

Freyja is also called “gray”, meaning “bitch” (*Íslendingabók, Kristni saga*, and *Brennu-Njal’s saga*; Turville-Petre 1964:176; Näsström 1995:209). Gray here is “used as a description of an impudent creature, following the oriental tradition with regards to canines” (Näsström 1995:209). However, dogs were not a negative connotation to pagan Norse, this came later with Christianity (Näsström 1995:209).

The only case of a gray cat is the world serpent Jörmungandr in disguise. Wolf (2009:235) says that the cat is gray because it is poetically linking it to the world serpent, whose other nickname is “grábakr” (gray back). It is therefore most likely a reference to the hostility of the world serpent and not to the character of the cat. The cat is the magical vessel for the monster, and since gray is a combination between white and black, the gray cat could signify a blurring of lines between this world and the supernatural.

5.5. Discussion

A recent article, “’The Warrior and the Cat’. A Re-Evaluation of the Roles of Domestic Cats in Viking Age Scandinavia” (Toplak 2019), suggests that there is no real connection between cats and magic in Viking Age Scandinavia. Rather, he says the religious association is mostly a later Christian addition. As Toplak largely takes from my master’s thesis, I would like to address my discrepancies.

I argue that rather than being a pure invention by Medieval Christians, Christian writers in fact put a negative spin on cats due to their use in fertility symbolism for pagans (Jochens 1995:6). Pagans were already familiar with wildcats before they came into contact with domestic cats, so

the reverence was always there and not a pure Christian invention. Also, the dichotomy of black and white symbolism is much older than Christianity, so black or white cats is not just pure Christian invention, either.

Although he does not deny that cats *could* have played a symbolic and religious role to the pagan Norse, Toplak mostly argues that the role of cats was too ambiguous and nebulous to truly say anything about it. His argument is based on the lack of cats compared to other sacrificial animals, such as the horse or the dog. I argue that the rarity of something does not take away its ability to perform a symbolic/religious/ritual role (Pétursdóttir 2009:38). It just means that people had less access them. In fact, the rarity could place something as higher religious importance than easily accessible things, for example the gold foils (gullgubber) found in cult houses, like Uppåkra.

Toplak also states that "cat fur was regularly used as a common material for the lining or trimming of clothes in the early urban milieus of the later Viking Age" (Toplak 2019:235). However, we do not actually know how popular it was archaeologically speaking. We only have the handful of cat skinning sites in Scandinavia and the handful of possible cat skins in graves, so it does not really seem particularly common. Also, popularity does not denote strict secularity. As we know, everyday objects also functioned as religious objects depending on context (Gräslund 2000:56; Lindow 2001:34; Renfrew 1994:52).

Cat fur also was not likely a very practical commodity. Cats are comparatively small animals to use for fur, compared to say a bear. They were, in fact, even smaller in pre-modern periods (Bitz-Thorsen and Gotfredsen 2018:7). Their fur was likely used for smaller things like trims and gloves, etc. Precious trims or small items could be seen as prestigious, or exotic. It could also have had a magical connection or possibly all of the above.

Toplak also argues cat fur was not meant for female magic, as examples of cats remains as well as possible furs have been found in male graves. If this accurately reflects the reality, then it is interesting to consider. However, he only references Maria Andersson's 1993 thesis, which only covers 50 graves in Sweden.

His point, though, that this would negate magic, which was mostly delegated to the female realm, is what I take issue with. First, men could practice magic as well as females. Men having cats in their graves or wearing their fur is not an indicator of exclusive secularity. In fact, the "evil" magicians in the literature with the black cats were men. Second, Oðinn was a master of magic who was taught by Freyja (Price 2019:1092). The femininity of magic would not necessarily mean there were only female practitioners. The feminine magic means the balance of energy (found in both men and women) would lean towards the feminine. Also, one might argue that men who practiced magic were seen as effeminate, but this is likely a Christian addition to further demonize pagan practice (Price 2019:293). So, this point to me is moot.

Leaving Toplak, some other issues need to be addressed. First is the issue of practical function. It does not seem likely that cats were used specifically as pest control in the Viking Age and earlier in pagan Scandinavia. The black rat was not even a common pest in Scandinavia and Iceland until the Middle Ages (Andersson 1993:31).

In fact, most geneticists agree that cats domesticated themselves and not by humans who wanted or needed them for pest control (Ottoni et al. 2017; Vigne 2015; Hu et al. 2014; Driscoll et al. 2009). "Furthermore, cats do not perform directed tasks and their actual utility is debatable, even as mousers. [In this latter role, terrier dogs and the ferret (a domesticated polecat) are more suitable.] Accordingly, there is little reason to believe an early agricultural community would have actively sought out and selected the wildcat as a house pet" (Driscoll et al. 2009:9974). The weasel,

domesticated since Roman times, was also preferred as a mouser over cats up until the AD 1300s (Pastoureau 2008:57). Cats, therefore, served another purpose or purposes for humans.

Several scholars (Leifsson 2011; Jennbert 2011; Maher 2009; Nielsen 2006; Andrén 2007; Gräslund 2004; Iregren 1997) have argued for a religious-magical relationship between humans and animals, particularly in ancient Scandinavia. There is a connection between cosmology, worldview, and myth to animals, as found in the archaeology and the literature alike. Archaeologically speaking, not only are animals found as food refuse, they are also found in ritual contexts such as bog offerings and as grave goods. This relationship is not only evident in the archaeology, but also is seen in the texts. Kristina Jennbert (2006) has argued that:

> *"Rituals and transformations of animals and blends of human and animal in pictorial art link the archaeological evidence discovered in graves with the Icelandic narratives and the art of poetry itself…Animals and zoomorphic images in the archaeological sources provide a background to the myths involving animals…The archaeological traces show that people and animals were recurrent motifs in an enduring cosmology. The bodily metaphors with humans and animals, and in particular the transformations between them, were a way to manifest people's thoughts, their world-view, and their ideas about the cosmos."* Jennbert 2006:137-139.

Toplak (2019) is correct about animals, particularly cats, serving multiple functions. The pagan Norse gods likely served multiple functions, as well (Gunnell 2015). Therefore, a cat can be a companion, but it can also be a symbol of death and rebirth, of cosmological balance; and it can play a role in magic and communication with the supernatural. Unlike Toplak, however, I think it is possible to see this multi-dynamic relationship with cats when combining the archaeology and the texts.

To summarize the archaeology, humans in Scandinavia have had a very long relationship with felines. The first evidence of human interaction dates all the way back to the Paleolithic. Over

time, the wildcat was replaced with the domestic cat, as the Norse travelled abroad more frequently. Cats continued to show up throughout the ages in ritual contexts throughout Scandinavia, however, the Viking Age saw the greatest occurrences, by far. This could be due to the sheer volume of graves investigated from this time period, however, and not because of the actual numbers. They lastly show up in the early Middle Ages as evidence of small commercialized production of fur, which could have been used for ritualized clothing. Cats have also been found all over Scandinavia, but more so in Sweden. This is either due to Sweden's access to the East or Denmark and Norway's lack of available records. Sweden may have had several examples of skins/furs of cats in their graves.

So, how does the literature compare to the archaeology? When the two combine, we can see a connection between cats (or felines) to the goddess Freyja through motifs of fertility, death, rebirth, and magic. Not only is the cat her special animal in the literature, but it is also associated with her multiple functions. And although there is a clear connection to Freyja, the cat does not only represent her, but the motifs in their own rights.

Scholars have suggested that Freyja's cats could have just been the Norse version of other Indo-European goddesses. The Greek goddess, Cybele, is the example most cited. Cybele also had a cart drawn by felines, but lions or panthers, rather than cats (Näsström 1995:25). However, the cat-drawn carriage of Freyja is not necessarily of foreign origin, like Cybele because "the cat, as the Norse pagans must have known, was the most lascivious of beasts" (Turville-Petre 1964:176), as well as their encounters with wildcats and lynx.

The Celtic goddess Cerridwen has also been connected with Freyja. Celts had a religious connection with cats, as well, as seen with their Irish "cat cult" in the 4th century AD (Graves 1948:221-222). Scholars have known for quite some time that the Celts and Norse influenced each

other culturally (Ellis Davidson 1993:155-159). Therefore, it is likely the Norse reverence for cats was a shared one, not a borrowed one. So, for the sake of this dissertation, let us say that Freyja was a true pagan Norse deity, in some form or other.

Freyja's primary function would have been as a fertility deity (Graves 1948; Näsström 1995; Turville-Petre 1964; Dumezil 1973). Iregren 1997's research claims that cats were found mostly in common graves and not large mounds, as my research confirms. Iregren goes on to say that the cat's connection to the more common graves reflects it as a fertility symbolism. Therefore, cats (as well as Freyja) would likely have been more revered by those who worked the land over someone like a magnate.

As stated earlier, the literature suggests cats have a foot in both the human (civilized) and supernatural (chaotic) worlds, are usually black (a color associated with fertility), and could be used in fertility or love magic. As cats (domestic and wild) have been found as bog votives, it is likely that their sacrifice was used for land and/or social fertility magic: a form of communication with the supernatural powers of the wild. The cats found as foundation deposits could also represent fertility magic, as wishes for household prosperity. Color is important in this bridge because the literature suggests that black or white cats would have held symbolic significance.

It is also worth mentioning the modern Norwegian forest cat here. Although its origins are muddled and complex, they are considered a natural breed. Natural breeds "…arose in specific geographic regions that experienced some degree of isolation, which resulted in fixation of alleles for distinctive morphological traits of the breed," meaning they have been around long enough to develop on their own (Menotti-Raymond 2008:5). It is likely the modern forest cat developed naturally in the cold climate of Scandinavia from the domestic cats brought by the Romans. What is of interest is that, although all types of colors and patterns are present today, the ancestors of the

modern forest cat are said to have been white and black (Case 2003:26). Perhaps this was a development from a mix of solid black and solid white cats from the Viking Age and earlier.

Cats are also associated with death and rebirth, by way of Freyja as well as their presence as grave goods for commoners. Freyja is linked with the dead and their rebirth in the afterlife. Like Oðinn, Freyja has her own hall where she welcomes her pick of the deceased (Ellis Davidson 1964:115). Along these lines, cats are also associated with spiritual guidance. Gräslund (2004) suggests that dogs played a role in guiding the deceased on their journey to the Underworld. So, too, could have cats. First, they are the pullers of Freyja's cart, which is a guiding role. Second, cats are most commonly found with dogs in graves, which could suggest a mutual guidance role.

Spiritual guidance is not restricted to the deceased. It is a role played in living magic as well. This is seen as the cat's possible role as ritualized body parts, particularly fur. Not only could Freyja's carts mean guidance to the Underworld, it could also suggest shamanic-like traveling. White cat fur was part of the ritual attire of famous prophetess in the literature and their body parts also served as ingredients in later magic spells. One particular spell calls for cat paws in order to create a shape-shifting/illusion enchantment. As we have many examples of cat skinning in the archaeology, including possibly white cats at Hofstaðir, it is possible the paws of a fur/skin were used in this spell.[2] The shape-shifting itself calls back to Freyja, as she was a master shape-shifter. Shapeshifting has been argued to be a form of shamanic travel (Price 2019). The cat fur itself, then, may have played a role as ritual clothing to help guide practitioners on their spiritual journeys.

The evidence mounts that cats (both domestic and wild) had a symbolic role in Norse cosmology, magic, and transcendence into the supernatural realm. There is consistency not only between what the texts have to say about cats, but also a consistency between the texts and how

[2] White paws are also common in the modern Norwegian forest cat (Case 2003:26).

cats are found archaeologically (Herschend 1997; Hodder 1991:28). Essentially, the feline was a special companion for the dead from the Mesolithic up through the Viking Age. It also served as a spiritual guide for the living into the magical and supernatural realms, as seen as its role in ritual fur clothing.

CHAPTER SIX:

CASE STUDY NO. 2: WHITE PEBBLES/QUARTZ

Crystal pebbles of varying types, mostly quartz, are occasionally found in the grave fills of pre-Christian Icelandic graves. They have been greatly overlooked and hardly are mentioned in the catalogues, let alone interpreted. If mentioned at all, these stones are usually merely described as placed in graves because they were interesting-looking or pretty. However, the Icelandic literary record suggests that these stones had a place in the cosmological myth of the people who put them there. For example, the literature has many accounts of magic stones that, for example, bring life or health.

The Norse creation myth also might hold a key to the presence of these stones in graves. Lindgren (2008) has purported that the quartz in graves could speak of the earth being created out of the primordial giant Ýmir's bones. After examination, some of these crystal pebbles, such as the Icelandic opal and zeolite, oddly look like human bones (see **Figs. 24-25)**, giving further weight to the "giant's bones" or "bones of the earth" hypothesis.

Finally, the concept of *Glæsisvellir*, the "shining fields," found in the literature may also serve as a key to understanding these stones, particularly the quartz, in graves. *Glæsisvellir* may have been a place for the dead as well as a location of liminality for where the dead could be reached by the living. The Irish traditions have a concept similar to *Glæsisvellir*. They also showed a connection between quartz and death and liminality. The Norse may also have had such a connection.

6.1. Stone Types and Locations in Scandinavia

An examination of stone types found in pagan Norse graves and where they can be found naturally in Scandinavia is necessary to understand the Norse (and earlier cultures') relationship to stones. The stones found in the graves of pagan Scandinavians across time and location are quartz, feldspar, opal, zeolite, and calcite.

6.1.1. Quartz

As mentioned in **Chapter 3**, quartz is the second most common mineral and is found all over the world. There are four subcategories of quartz that have been found in pagan Scandinavian graves: chalcedony, agate, rock crystal, and onyx. If a stone has been recorded as any of these four subcategories, they automatically go under "Quartz" for this study.

There are 112 pagan graves in Norway, 99 pagan graves in Sweden, and 13 pagan graves in Denmark that contained at least one type of quartz or white/clear stone. Of the 18 pagan graves in Iceland containing at least one crystal pebble, 9 contain at least one type of quartz. The one exception is the Icelandic site of *Kumlabrekka*, which will be discussed in detail later. These listings are not worked artifacts with known functions, such as strike-a-lites.

Denmark has two quartz deposits on the island of Bornholm: Klippeløkken Quarry and Vang Granite Quarry. It also has two deposits in the north at the Shore of Limfjorden and one in central Denmark at Batum salt dome. Norway has two large and significant quartz deposits: Hanekleiva tunnel in the east near Oslo and Landsverk 1 Feldspar Quarry (Jokeli) in the south. These deposits are of excellent quality. Sweden also has two large quartz deposits: Västanå Iron Mine (Westanå Mine) in the south and Persgruvan in central Sweden. The rest of Norway and Sweden have several deposits scattered all over the peninsula (1807 in Norway and 538 in

Sweden). Ancient Norwegians and Swedes would have had access to quartz all over the country and burials with quartz have been found all over.

Iceland has several quartz deposits all over the country: two in the Westfjords (northwest), three in the southwest, three in the west, seven in the north, 11 in the Reykjavik area, and 34 in the east. It is very common to find quartz as an amygdale in the cooled lava fields of the Eastfjords (Guðbjartur Kristófersson, Jarðfræðiglósur: Kvars holufyllingar).

6.1.2. Feldspar

Feldspar is the most common mineral and is found all over the world. Norway has alkali feldspar in four areas: 32 in the east near Oslo, 26 in the south, one in the west near Bergen and one in western central Norway. Norway also has K feldspar in several areas: 40 in the north, 50 in the southeast, 60 in the south, 44 in the southwest, 18 in central Norway, and six in central eastern Norway.

Sweden has K feldspar in several areas: 12 in the east near Stockholm, 11 in central Sweden, two in the west, two in eastern central Sweden, four in western central Sweden, and 10 in northern Sweden. Denmark has only one K Feldspar and it is at Vang Granite Quarry on Bornholm island. K feldspar is found in 4 areas of Iceland: two from Krafla Volcano in Mývatn in the northeast, and two from Reydarfjörður drill hole in the east.

6.1.3. Opal

Norway has several opal deposits, 69 of which are in the east near Oslo. Three are in the west, eight in central Norway, and one in the north. Sweden has only four opal deposits: Osby quarry in the south, Långban and Rökärrs Mine in central Sweden, and Ultevis in the north. Denmark has opal in only three areas: Fur Island in central Denmark, and Hanklit and Skarrehage

Moler quarry in the north. Iceland has opal in five locations: two in the Westman Islands (Grillið Cave on Surtsey and Eldfell on Heimaey), two in Geysir in south central Iceland, and one in Breiðdalur in the east.

6.1.4. Zeolite

Norway has four zeolite group deposits: two in the south (Søftestad Mines and Haugen) and two in western central Norway (Skaudalen copper deposit and Djupvatnet). Sweden only has one zeolite group deposit, which is Aitik Mine in the north. Denmark does not have any known zeolite group deposits. Iceland has 11 zeolite group deposits: two in the southwest, four in the west, one in the north, two in the east, one in the southeast and one in the south.

6.1.5. Calcite

Norway has massive amounts of calcite deposits. There are 473 deposits in the east near Oslo, 32 in the west, 39 in eastern central Norway, 71 in western central Norway, and 119 deposits in the north. Sweden also has massive amounts of calcite deposits. There are 92 in the south, 20 in the southeast near Stockholm, 14 in the southwest, 134 in south central Sweden, 47 in the north, and 17 in central Sweden. Denmark has 11 calcite deposits: one on Bornholm island, one in Sjaelland, three in central Denmark, and six in the northwest.

Iceland has several calcite deposits. Three are in the south, seven in the Reykjavik area, one in the west, five in the Westfjords, five in the north, 14 in the east, and one in the southeast. Iceland spar ($CaCO_3$) is actually a clear form of calcite. Iceland spar is found in 3 areas of Iceland: Úlfarsfell near Reykjavík and Helgustaðir Mine and Breiðdalur in the east.

6.1.6. Sólveig Beck and Icelandic stones

After her investigation, Sólveig Beck concluded that it is not possible to distinguish where these stones came from within Iceland itself. “There is potential at every location of finding amygdales, but we cannot pinpoint any particular places or areas without going to each one to look at river and coastal sediments and the environs etc. And we could not prove they came from there anyway because they are so common. Only the zeolite from Hafbjarnarstaðir could potentially be said to be from outside Reykjanes as zeolites are mostly found in tertiary basalt formations (the blue) in Iceland. Icelanders were very mobile so the pebbles could have been picked up anywhere along any route (Beck 2020 Pers. Comm.) (see **Fig. 10**).

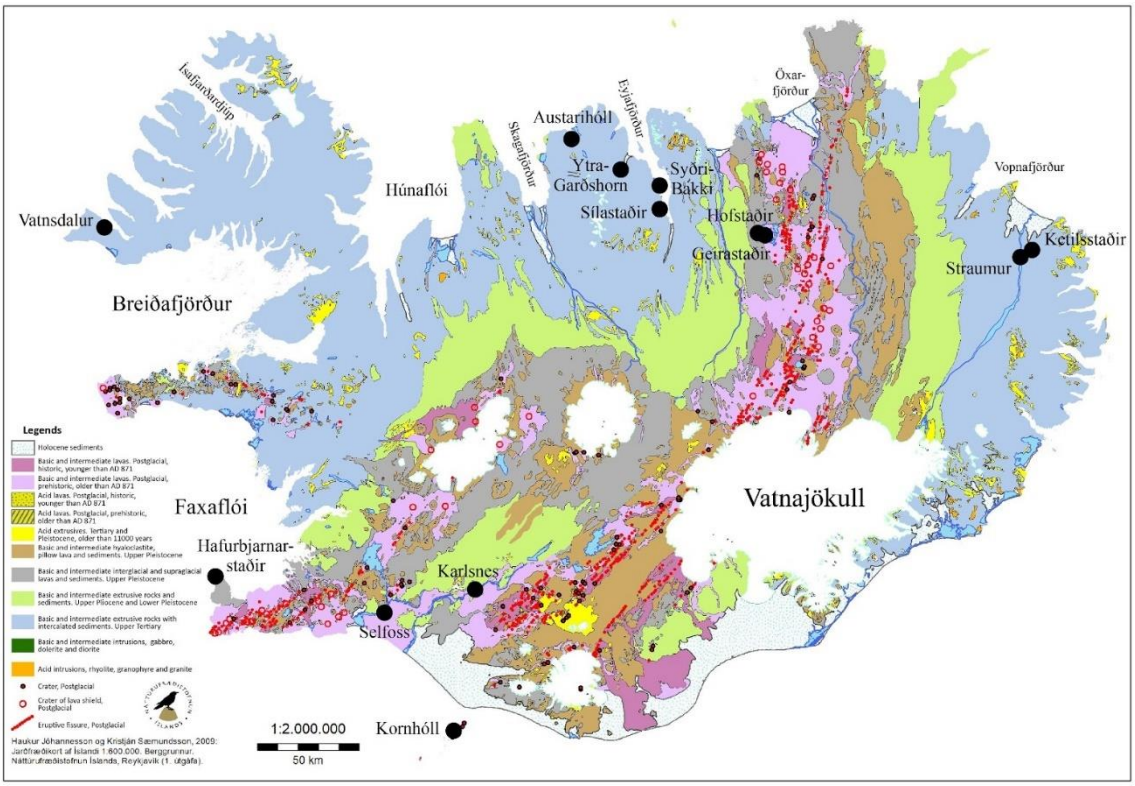


Figure 10. Map of Icelandic geology and the placement of the graves with stones. Curtesy of Solveig Beck (Institute of Archaeology, Iceland) and Anette T. Meier (Institute of Natural History, Iceland)

However, Beck does believe that all the stones are likely to have been intentionally placed within the graves as opposed to occurring naturally. It is not possible to be absolutely certain of

this, though, as “It really depends on the soils/sediments the graves are dug into and as we have very little info on context information on most of these graves with regard to underlying geology or nature of grave fills so we can’t really say much about it (Beck 2020 Pers. Comm)”. Despite this, most of the contexts indicate likely intentional placement.

The only stones that are truly questionable as intentionally placed in the graves are that of *Kornhóll* and Num. 988 from grave 127 in *Dysnes*. The *Kornhóll* stone is debatable as the grave was very disturbed by modern land-works. However, the land-workers reported that all of the finds were at the skeleton’s lap, so it is still likely the stones were placed intentionally. The num. 988 stone from *Dysnes* is questionable because it “is angular and was with the coffin remains so it could be natural/less likely to be a placement” (Beck 2020. Pers. Comm.; Walker 1960; Torfason 2003; Jóhannesson 2014). See **Appendix M** for a table created by Beck on the Icelandic stones and more in-depth analyses by her.

6.2. Medieval Literary and Folklore References

The medieval Icelandic literary record, as well as later folklore, has many references to magic stones (see **Appendix C** and **Table 4**). Several of these stones have medicinal qualities and others are more magical. I have also included some concepts of “shining” or “glimmering” as quartz is known to be.

The literary references used are the following:

Table 4. Icelandic Literary References to Special Stones

Icelandic Title	English Title	Type of Text	Useful/Not Useful
Snorra Edda	*Prose Edda*	Prose Edda	Useful
Grímnismál	*Grimnir's Sayings*	Poetic Edda	Useful
Vafþrúðnismál	*Vafþrúðnir's Sayings*	Poetic Edda	Useful
Guðrunarkviða III	*The Third Lay of Guðrun*	Poetic Edda	Useful
Helgakviða Hjorvarðssonar	*The Lay of Helgi Hjorvarðsson*	Poetic Edda	Useful
Helgakviða Hundingsbana II	*The Second Lay of Helgi Hundingsbane*	Poetic Edda	Useful
Völundarkviða	*The Lay of Völund*	Poetic Edda	Useful
Kormáks saga	*The Saga of Cormac the Skald*	Family Saga	Useful
Þorsteins saga Víkingssonar	*The Saga of Þorstein Víkingr's Son*	Heroic Saga	Useful
Þorsteinn þáttur bœjarmagns	*Thorstein Mansion-Might*	Heroic Saga	Useful
Bósa saga ok Herrauds	*Story of Bósi and Herraud*	Heroic Saga	Not Useful
Hálfdanar Saga Eysteinsson	*The Saga of Halfdan Eysteinsson*	Heroic Saga	Useful
Göngu-Hrólfs saga	*Hiking-Hrólfs saga*	Heroic Saga	Useful
Hervarar saga ok Heiðreks	*Saga of King Heidrek the Wise*	Heroic Saga	Useful
Norna-Gests þáttr	*Story of Norna-Gest*	Heroic Saga	Useful
Helga þáttr Þórissonar	*Story of Helgi Þórisson*	Heroic Saga	Useful
Eiríks saga rauða	*Eirik the Red's Saga*	Family Saga	Useful
Heiðarvígasaga	*The Saga of the Heath Slayings*	Family Saga	Not Useful
Laxadœla Saga	*The Saga of the People of Laxardal*	Family Saga	Useful
Þórðar saga hreðu	*The Story of Thórðr Hreða*	Family Saga	Useful
Guðmundar saga biskups	*The Life of Guðmund the Good: Bishop of Holar*	Bishops´ Saga	Useful
Grágás	*Grey Goose*	Law Code	Useful
Náttúrasteinar (Hauksbók)	*Natural Stones (found in Hauksbók)*	Folklore	Useful
Galdrabók	*Book of Magic*	Folklore	Useful

6.2.1. Medicinal References for White Stones

There are several references to medicinal stones in the literature, particularly from the later folklore. Although the "medicinal" properties of stones fall under the category of what modern culture would call magic, I chose to separate them into two categories because medieval Europeans saw these stones as true medicine and not magic. These medicinal stones have different properties and usually have different colors. For this study, I focused on stones and gems in the literature that either had no description or that were close to the ones found in the graves: clear or white. I did not find any medicinal stones that were specifically clear or white.

Kormáks saga describes a "lyfsteinn" or "life stone." This special stone is not only considered to bring the bearer good luck, but it also could heal wounds. *Laxadæla Saga* and *Þórðar saga hreðu* also mention a special "lyfsteinn" that healed the wounded. These references are all marked as useful, which makes for a good case.

Jón Árnason, in his *Íslenzkar Þjóðsögur og Aefintyri*, has said of life stones:

> *Nafn sitt hefir hann af því, að hann bæði lífgar það, sem dautt er, eða dauðvona, leingir líf manns, og græðir sár fljótar og betur en nokkur hlutur annar....Lífsteinn finnst og þar sem jörðin veltist um og skrugga fellur; hann er rauður á lit og dálítill; hann finnst á háfjöllum. þar grandar ekki eldur, sein lífsteinn er inn borinn...Þeir voru bleikleitir, en þó með ýmsum litum og sa ýmsri stærð.* Jón Árnason 1862: 653-654

> *It is called this because it both gives life to which is dead or dying, gives longer life and heals wounds faster and better than any other thing....A life stone is found where the earth rolls over and thunder falls; it is a little bit red in color and small; it is found high in the mountains. They are pinkish but also come in various colors and sizes.* My translation.

Jón Árnason says that the life stones are usually red or pinkish, which makes sense as blood is red and is a source of life. However, I included them here because he also states that they can come in many different colors. Jón is likely saying that life stones come from Icelandic volcanos,

high in the mountains (where the earth turns and thunder falls). This is probably an association between the red and pink colored stones and the red of the lava. However, quartz is known to form in the bubbles of volcanic rock and thus could represent the white variations of the life stones.

A medieval Swedish manuscript, *Den vises sten*[2] (The Philosopher's Stone) tells of a magic stone that brings the dead back to life as well as cures blindness, lame limbs, and deafness. This stone also provides an unnaturally long life to the bearer. These two sources are only somewhat reliable and hence must be received with caution.

6.2.2. Magical

Several references are made to magical stones, as well. Like the medicinal stones, I focused on stones and gems in the literature that either had no description or that were clear or white.

In *Þorsteins saga Víkingssonar*, a magic stone is an integral part of a magic helmet. This stone gives the helmet wearer invincibility in battle. *Hálfdanar Saga Eysteinsson* and *Heiðarvígasaga* speak of a stone necklace that provides the wearer protection. *Göngu-Hrólfs saga* mentions a special sword that has inlaid "lyfsteinn." Instead of healing, these stones protect the sword bearer from poisons and burns. The *Galdrabók* has a section on *Hirundosteinar*. In this section, a white stone is described that protects the bearer from being brutally beaten. However, all of these sources are either somewhat reliable or unreliable and therefore should be regarded with great caution.

Þorsteinn þáttur bæjarmagns has a magic stone that is multi-colored. Each color provides a different function. The white side of the stone is used for weather magic, specifically to invoke a hailstorm. This is an example of imitative magic (Frazer 1922), where like creates like. The white

[2] Written by Sturkarus Thurgili in AD 1379 in Sweden. The manuscript number is *UUB C 391*.

of the storm is similar to and therefore magically related to the white of a hailstorm. The red part sparks fire and the yellow part invokes the sun to thaw snow. The entire stone functions altogether as a retrieval stone. It will hit anything you aim it at as well as retrieve that item you hit. It is interesting to note that this stone was originally owned by a dwarf who then gave it to a human, suggesting the supernatural origin of magic stones. However, this is a somewhat unreliable source and does not fit with the older material.

Guðmundar saga biskups speaks of a magical "sunstone" that was thrown away because its purpose was not understood. It has long been thought that these "sunstones" were actually Icelandic spar (clear calcite) and that they were used in nautical navigation (Ropars et al. 2011). However, this has been heavily disputed (Roslund and Beckman 1994). *Ólafs saga Helga* has the most well-known story of a sunstone; however, it comes from a very Christian source: the *Saints' sagas* that chronicle the lives of Christian saints. If the Norse did have sunstones, it is not possible to tell if they thought of them as magical, anyhow. It is interesting to ponder, though, if the Norse thought clear stones in general would represent navigational guidance even into the Underworld. This source is also a somewhat unreliable one and should be regarded with caution.

In *Guðrunarkviða III* (Stanza 3), a white stone plays an important role. It is used to swear an oath by. This suggests the stone itself has magical properties that either bind people to their oaths, prevents lying, or both. It also may suggest the stone is so sacred that to pollute it with lies would be a disgrace.

> *"I'll swear you oaths about all this,/ by the sacred white stone,/ that with Thiodmar's son I never did anything/ which a lady and man ought not to do together"* Larrington 2008: 203.

> *"Guðrun kvað: 'Þér mun eg alls þess/ eiða vinna/ að inum hvíta/ helga steini,/ að eg við Þjóðrek/ þagði áttag,/ er vörð né ver/ vinna knátti-t,"* Ólafur Briem 1976: 409.

Also in *Guðrunarkviða III* (Stanza 9), there are precious stones at the bottom of a boiling cauldron. It is likely that these stones are several of the sacred white stone spoken about in Stanza 3, as they are part of the oath swearing ritual. A sacred cauldron boils and Guðrun puts her hand in it to grab the precious stones at the bottom. Her hand comes back up unscathed by the boiling water, suggesting her oath is true.

Helgakviða Hundingsbana II (Stanza 31) also has a magic stone that is used to swear an oath. It is not clear what color this stone is, but it is owned by a sea-goddess named Unn. It is described as cool and watery. Hoftun (1997:43) suggests that water is associated with the color white, which might also suggest that Unn's stone is white, as well. Both *Helgakviða* and *Guðrunarkviða III* are fairly reliable and thus should be considered telling of the importance of stones in oath-swearing in pagan tradition.

In the *Galdrabók*, there is a section on *Óskasteinar*. These magical stones grant wishes, as their name implies. There is a special way one acquires a wishing stone:

> *"The wishing stone is found by the sea, at half-past six, when the moon is 19 nights and the sun is in full south. Seek it on the morning of Easter; carry it under your tongue and speak what you want. This stone is white-yellow in color and somewhat light-colored; it is very similar to a bean."* My translation.

What is interesting here is that the white-yellow color and the bean-like shape and size are exactly what many of the stones in the Icelandic pagan graves look like (**Fig. 11**). It is also interesting to note that this spell and stone are associated with the ocean, perhaps harkening back to Unn's sacred stone.

Figure 11. White-yellow and bean-like quartz stones from the Icelandic pagan grave at Ytra-Garðshorn, Grave 9

Galdrabók also has a section on *Fésteinar*. These stones also do what their name implies: bring wealth to the owner. These stones are also white and are associated with the ocean. However, it is possible that at least one of them is actually a bezoar as the spell says that it grows outside of a sheep's womb. The other is more noteworthy as it is supposedly found expelled from the sea and should be stored in white, unburnt clay (which may harken back to the white clays of Yggdrasil). The stone itself is supposedly dark brown with dark streaks, however.

The *Galdrabók* also refers to a stone called *Stefnir*. It is white and has 9 natures. Only one of these natures is negative; the rest are mostly protective. Lastly, agate, a form of chalcedony (quartz), is mentioned in the *Galdrabók*. Agate is here said to have magical properties, particularly protective magic. One of the interesting things it supposedly protects against is ghosts, which makes it an interesting find in graves. The white-yellow colors of agate are supposed to work best

for women. Although the *Galdrabók* is only somewhat reliable, the likeness of the stones described to the stones of the archeology are uncanny and should be given some extra reliability here.

Another magical use of stones is seen as part of magical clothing. Again, we encounter the Greenlandic Norse prophetess, Þorbjörg Lítilvölva, in the reliable *Eiríks saga rauða.* Not only does her raiment include white cat fur, but her cloak is also bedecked in precious stones. Neil Price (2019:480) suggests this might just be a medieval image of a "story-book wizard", not unlike what one might imagine in *Harry Potter* or *The Sword in the Stone*. However, the author's image of a wizard might have been based in reality. Another reliable source, *Grágás,* says that the use of magical stones was prohibited in medieval Iceland, which suggests magic stones were in fact known pagan ritual items.

6.2.3. References to Abstractions of Quartz

The manuscript *Hauksbók* has a section dedicated to special stones: "Seven Precious Stones and Their Nature." In this reliable section is described a stone called *Chrysoprasus*, which is a type of chalcedony. It is described as glowing as fire in darkness but is pinkish-yellow in the light of day. This must describe the triboluminescence of quartz, of which chalcedony falls under.

Ffion Reynolds (2009) has argued that quartz played a large role as an animistic agent in Neolithic Irish tradition and belief. Reynolds refers to the use of massive amounts of quartz to make the megalithic Neolithic graves of Ireland, particularly Newgrange Site. Her argument is that ethnographic analogies of Native American shamans reveal that humans believe quartz to be a living stone because of its triboluminescence. Reynolds suggests that Neolithic people (and other ancient cultures) likely saw quartz as active and alive because of the light within it. The Irish tradition of quartz in graves will be discussed further below.

In the fairly reliable poem *Grímnismál* (stanza 30), *Glær* ("glassy") is the name of one of the horses belonging to the gods. This horse has a special duty, which is to take the gods to the world tree *Yggradasil* every day in order to make judgements. This suggests something shining or translucent is connected to the supernatural realm as well as to the cosmological forces that keep the world in order.

This brings us to the concept of *Glæsisvellir*, meaning "shining fields" (or "gleaming" or "glittering"). *Glæsisvellir* is ruled by a possibly supernatural being, named Guðmundur. It supposedly lies in the far north-east as a district of *Jötenheimar* (the land of the giants). Nearby are *Ýmisland*, the home of Ýmir the primordial giant, *Ódaisakr*, the land of the deathless, and *Rísaland*, home of the *rísar* (supernatural beings).

References to *Glæsisvellir* are found in several *Heroic Sagas*: *Hervarar saga ok Heiðrek, Norna-Gests þáttr, Helga þáttr Þórissonar, Bósa saga ok Herrauds* and *Þorsteins þáttr bæjarmagns*. However, only *Hervarar saga ok Heiðrek* is considered fairly reliable here. *Norna-Gests þáttr, Helga þáttr Þórissonar,* and *Þorsteins þáttr* are only somewhat reliable and *Bósa saga* is unreliable. Therefore, these references should be taken with a lot of caution.

Anders Andrén (2007:116) has interpreted *Glæsisvellir* as one of several worlds for the dead. This is due to the reference to *Ódainsákr* as being a place of the dead and its near proximity to *Glæsisvellir*. This is the only reference to *Ódainsákr* and *Glæsisvellir* together. However, it does come from the more reliable *Hervarar saga*. Simek (1996:112) has suggested that perhaps *Glæsisvellir* as a realm of the dead could be linked to *Glasislundr*, a magical grove in the Eddaic poem, *Helgakviða Hjorvarðssonar* (stanza 1). This grove could be the mythical grove or tree called *Glasir*, which stands in front of the doors of Vallhöll in Ásgarðr, which is found in Snorri's

*Skáldskaparmál (*Ch. 40-42). *Glasir* is said to be the most beautiful tree for both gods and men, as it has gleaming golden red leaves.

However, Simek (1996:121;181) goes on to say that *Glæsisvellir* was likely not really pagan at all but rather a medieval construct not dissimilar to the concept of the Christian "paradise". Felix Lummer (2017) and Lyonel Perabo (2016) have argued that *Glæsisvellir* is not a realm of the dead, but rather a legendary and mythical place somewhere in the far north-east of Scandinavia. Lummer (2017:25) has argued that it is a mysterious and magical moving island of legend, similar to ones found in Irish folklore. He goes on to say that these islands and hence *Glæsisvellir* are places of liminality where the living could interact with the dead. Perabo (2016:1), on the other hand, suggests that *Glæsisvellir* is a place belonging to the Sami as the Germanic Norse might have seen them as magical outsiders.

If *Glæsisvellir* does in fact represent a realm of the dead, its connection to graves and shining stones is clear. As liquified light, quartz or other shining stones could have held *Glasir*'s glowing leaves within or some other glowing component of *Glæsisvellir*. *Glæsisvellir* would explain why only some graves have quartz or shining stones as inclusions: it is only one of several places the dead could go. Perhaps the stones would indicate the intention of the grave's occupant to go the "shining fields" in the afterlife and could also have functioned as navigational tools to reach it. *Glæsisvellir* is mostly described in a positive light in the texts (Perabo 2016:65), so this could indicate a place where someone would want to go after death.

Lastly, Christina Lindgren (2008:158-9) has argued that quartz, particularly found in Swedish pagan graves, represents the primordial giant Ýmir. She argues that incorporating quartz in these particular graves was an act of power as a lot of time and effort was needed to quarry it. This act of power was also the transformation of a myth into reality.

Lindgren suggests that quartz might have been seen as the physical manifestation of the giant Ýmir's bones. Ýmir, as seen in **Ch. 2**, was the first being to spring forth from the cosmological void of Ginnungagap. The Eddaic poems *Grímnismál* (verse 40) and *Vafþrúðnismál* (verse 21) relate that the rocks and stones of the earth were made from Ýmir's crushed bones. Snorri's *Gylfaginning* (Ch. 8) also references this. Thus, she suggests, the quartz veins found in rocks, as well as quarried quartz, could have been perceived as the petrified bones of the mythological giant. Purposefully crushed quartz has been found in many Iron Age Scandinavian graves and very much resembles crushed bone. Perhaps the mingling of "primordial bones" and human bones could have been a ritual power display of recreating cosmological myth.

The graves, Lindgren (2008:159) continues, could have then served as locations of supernatural contact: "making thoughts and beliefs visible and touchable…It made them [people] part of a common past, it created a meaningful nature and it made religious stories real, and it gave physical qualities to abstract things." The use of creation myth in these graves ultimately would have served as a claim to a ruling identity and to legitimate the power and high social status of the ones in the graves as well as their living relatives.

The concept of quartz relating to parts of the body also lines up with the Eddaic Poem, *Völundarkviða* (stanza 25). In this poem, after killing his enemy's sons, Völund the Smith fashioned items from their bodies:

> *En úr augum/ jarknasteina/ sendi hann kunnigri/ konu Níðaðar/ en úr tönnum/ tveggja þeirra/ sló hann brjóstkringlur,/ sendi Böðvildi.*
> Ólafur Briem 1976: 243-244
> *And from their eyes he shaped exotic stones/ he sent them to the cunning queen of Nidud/ and from the teeth of the two/ he struck brooches; sent them to Bodvild*. Larrington 2008: 106

Snorri must have been familiar with this poem. In his fairly reliable *Skáldskaparmál* (Ch. 69), Snorri says that "jewels" is a *kenning* for "eyes." Perhaps the triboluminescence of quartz

reminded the poet and Snorri of the sparkle seen in eyes. Quartz, in this case, could represent the Völund myth.

6.3. Archaeology of White Pebbles/Quartz in Graves

6.3.1. Results and Analyses

After doing the searches in the databases, 121 graves from Norway, 99 graves from Sweden, 15 graves from Denmark, and 17 graves from Iceland had either quartz or some other white or clear stone as an inclusion. The dates range from the Stone Age all the way up into Christian Middle Ages.

*The **Norwegian** material:*

The Norwegian UNIMUS database does not allow for searching just by site. It only allows for artifact search which creates a problem for discerning percentages. However, it appears that there is quite a large number of graves recorded and only 121 of them have quartz.

As was seen in the Cats Case Study in **Ch. 5**, the majority of the finds come from the Iron Age (see **Fig. 12**). This might also be due to the popularity of excavating and investigating this time period over the others. The numbers are such: 16 (13%) from the Stone Age, 5 (4%) from the Bronze Age 61 (50%) from the Iron Age, 2 (2%) from the Middle Ages, 11 (9%) from Unknown time periods and 26 (21%) from Other. The Other category is comprised of mixed time periods or time periods that extend into each other.

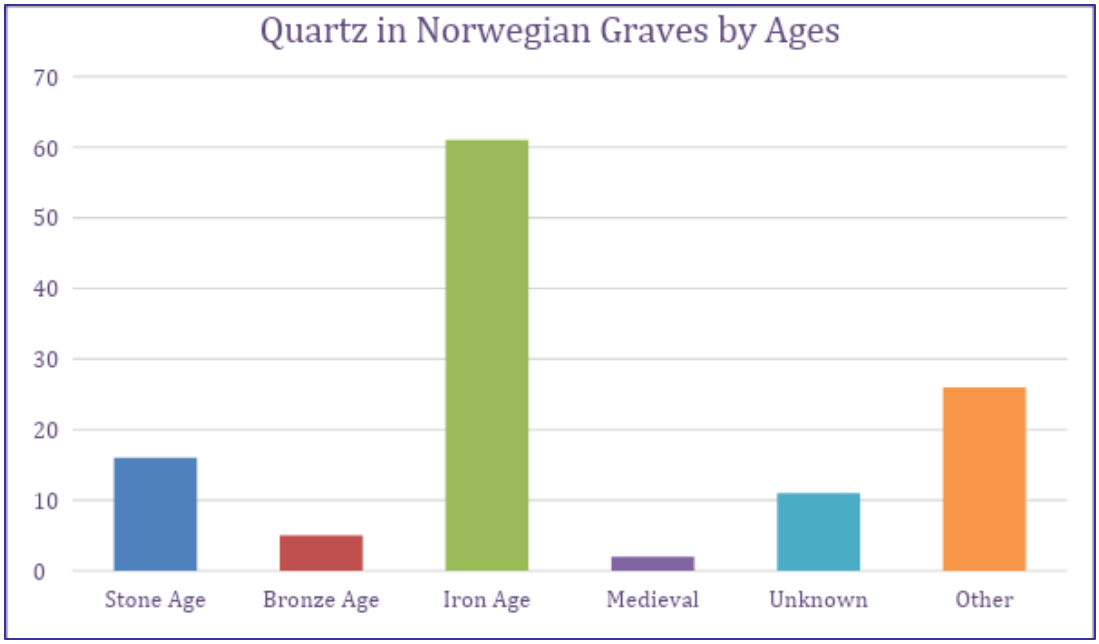


Figure 12. Excavated Norwegian Graves with Quartz Inclusions by Time Period

Cremation versus inhumation did not seem to make a difference, as most of the graves did not have information about it (62, 51%). 32 (26%) were part of cremations and 27 (22%) were from inhumations. The time periods do not seem to make a difference for this as most of the information regarding this comes from the Iron Age graves.

The types of graves again are mostly unknown (46, 38%). Mounds come in at 31 (26%) followed by cairns at 29 (24%). 11 (9%) are from flat graves, 2 (2%) are from stone cists, 1 (.8%) from a stone setting, and 1 (.08%) from a boat grave. Again, this could be due to the abundance of graves likely excavated from the Iron Age over the other periods.

There does not seem to be any correlation between specific animal and quartz. Only 22 animals were noted coming from only 18 of the graves. The rest did not mention any animals in their descriptions. Most of these are single animal inclusions and the rest only go up to 3 different species. Of the known species, the animal inclusions consist of mussel shells, snail shells, fish, whale, seal, bird, reindeer, horse, dog, cow, bear, and sheep/goat.

For artifacts (see **Fig. 13**), as in the Cats Case Study, the largest category is miscellaneous, which includes things such as nails and skews the numbers. After miscellaneous, the largest category is tools (24%). Food and organic objects make up 10% and jewelry 8%.

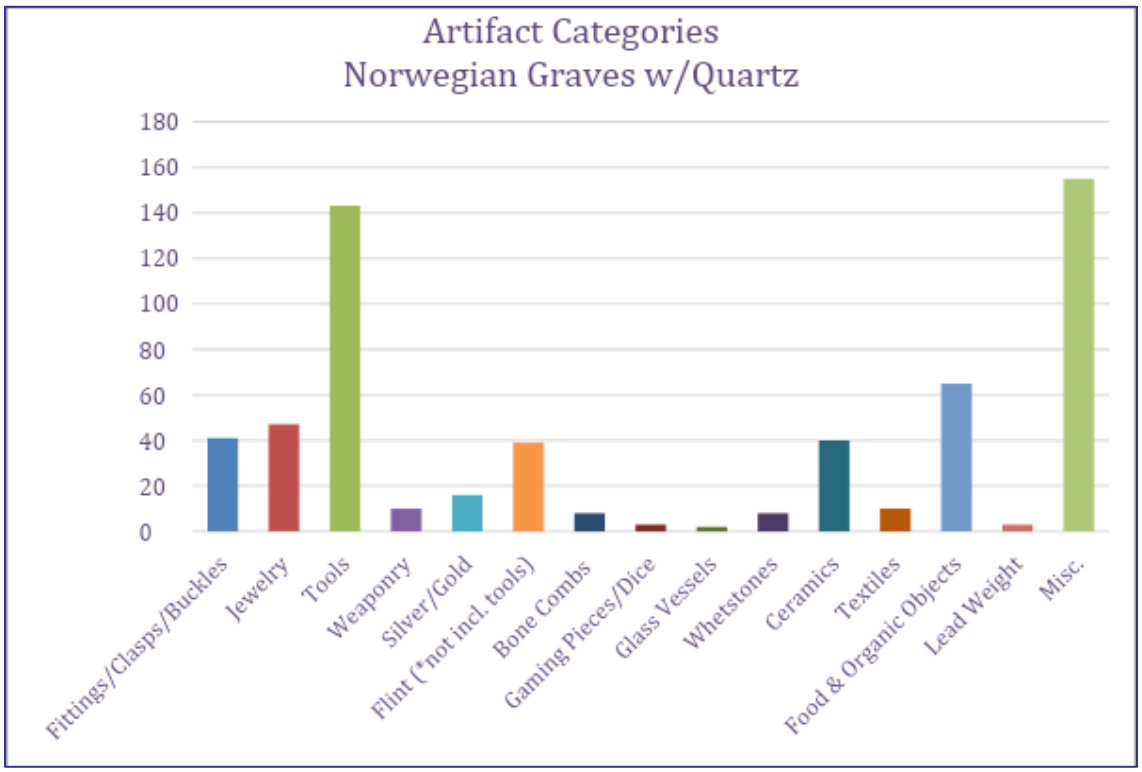


Figure 13. Excavated Norwegian Graves with Quartz Inclusions by Artifact Type

Again, iron (30%) is the dominant material artifacts (see **Fig. 14**). This could be due to the dominance of Iron Age excavations. Surprisingly, the next most common material is stone (not including the quartz) (21%). Only 10% is made up of Bronze and there is very little in way of silver and gold (2%).

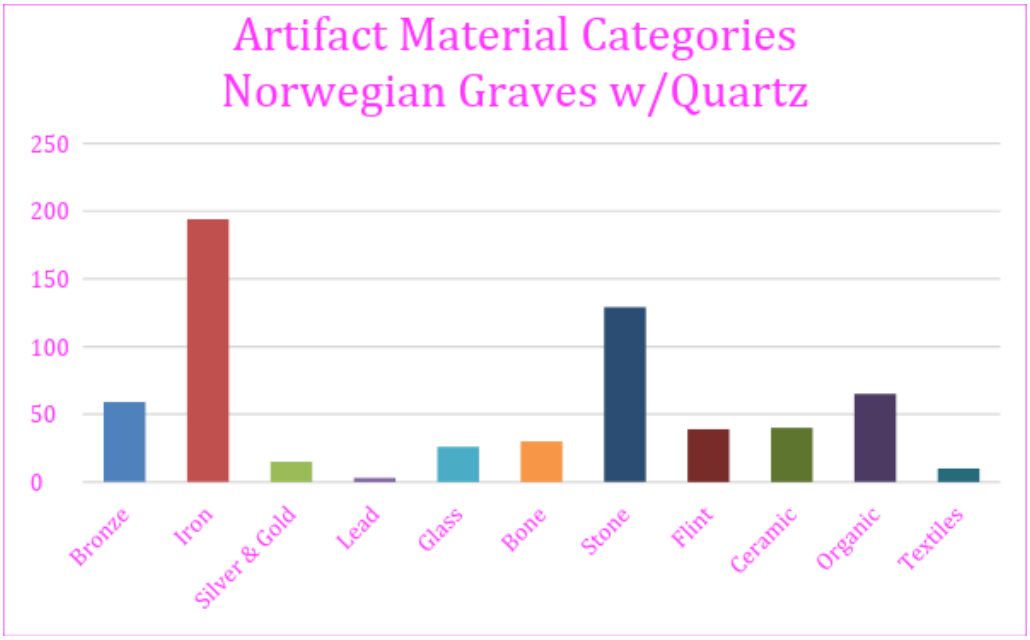


Figure 14. Excavated Norwegian Graves with Quartz Inclusions by Artifact Material

Of the 121 graves, 112 (93%) had one or more artifacts listed other than the quartz. 48 (43%) have 5 or more types of artifacts, does not seem to suggest that wealth or poverty played a factor. Perhaps as it is an abundant natural source in Scandinavia, it was an easy item to include for all social statuses.

Only 15 of the 121 graves had data on the sex of the skeletal material. Of these, 12 (80%) females were present over 3 (20%) males. If these numbers were not so significantly low, this would suggest heavily towards females. Of the 12 graves that had data on age, 9 (75%) were adults and 3 (25%) were children. Most of these graves were single burials (86%). Only 1 grave was a double burial and only one grave contained 4 individuals.

The number of quartz fragments found in these graves ranges from 1 to 165. The average number of fragments 6. The largest deposits span all of the time periods, however the 165 belong to a Stone Age grave.

*The **Swedish** material:*

Of the 8301 Swedish graves the *Historisk museet* database has registered from the Stone Age up until the Middle Ages, only 99 (1%) have recorded quartz or other white/clear stones as grave inclusions. This extremely low percentage could be due to the lack of interest in recording these types of finds, especially from earlier excavations when they could have been thrown away as insignificant.

As with the Cat Case Study, again we see a large skew towards the Iron Age (80%) for graves with quartz as inclusions (see **Fig. 15**). However, only 50 graves gave specific time periods. If we broaden the time periods to ranges instead, the data does seem to skew more towards the Bronze Age to the Older Iron Age (see **Fig. 16**).

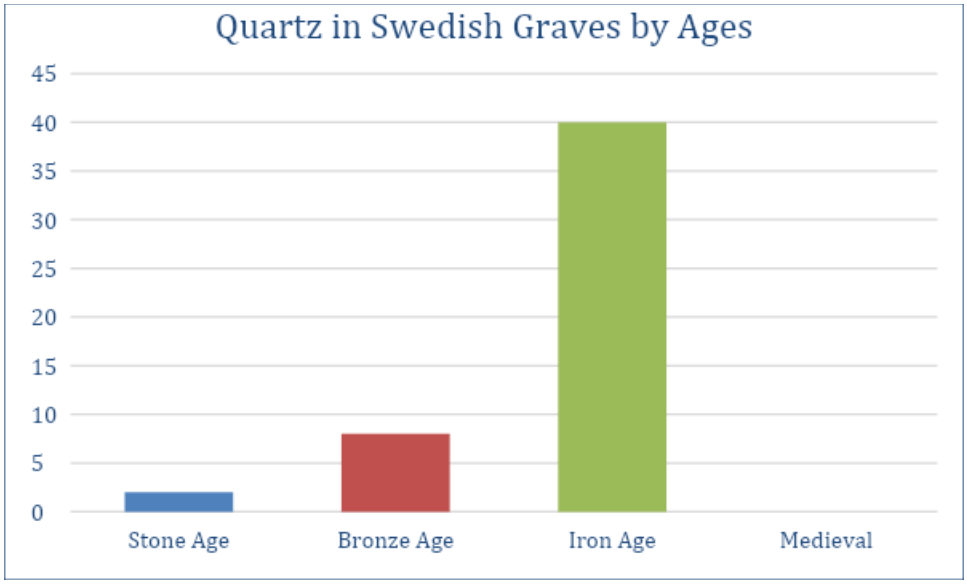


Figure 15. Excavated Swedish Graves with Quartz Inclusions by Time Period

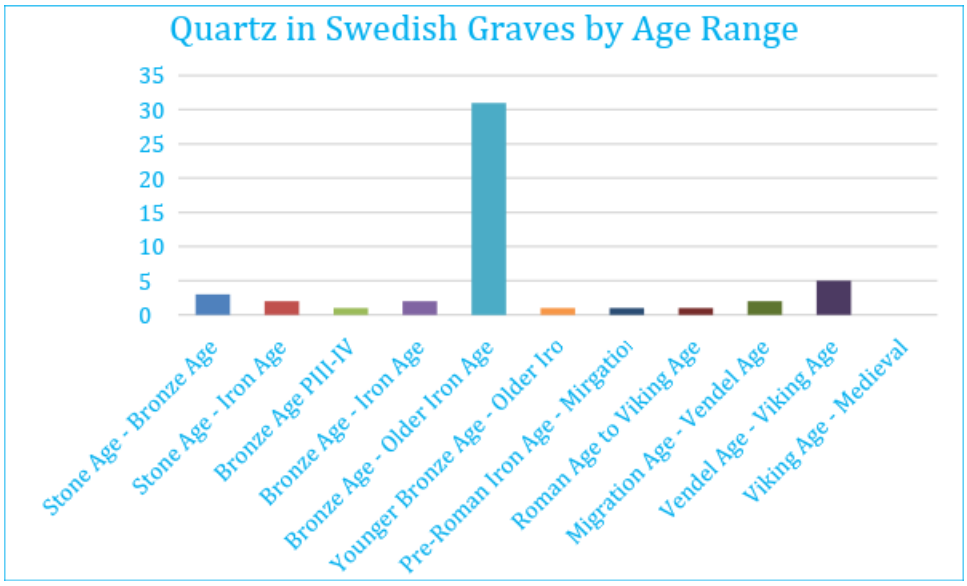


Figure 16. Excavated Swedish Graves with Quartz Inclusions by Time Range

Of the types of graves (see **Fig. 17**), stone settings are by far the largest category, coming in at 50%. The unknown types of graves come in next at 27%, followed by mounds (12%) and cairns (10%), with one death house. Stone settings are quite common graves in the Swedish Iron Age, but so are cairns and mounds. It does seem interesting that half of the graves are stone settings, which might suggest a connection to a deeper reverence for stone in general to particular groups.

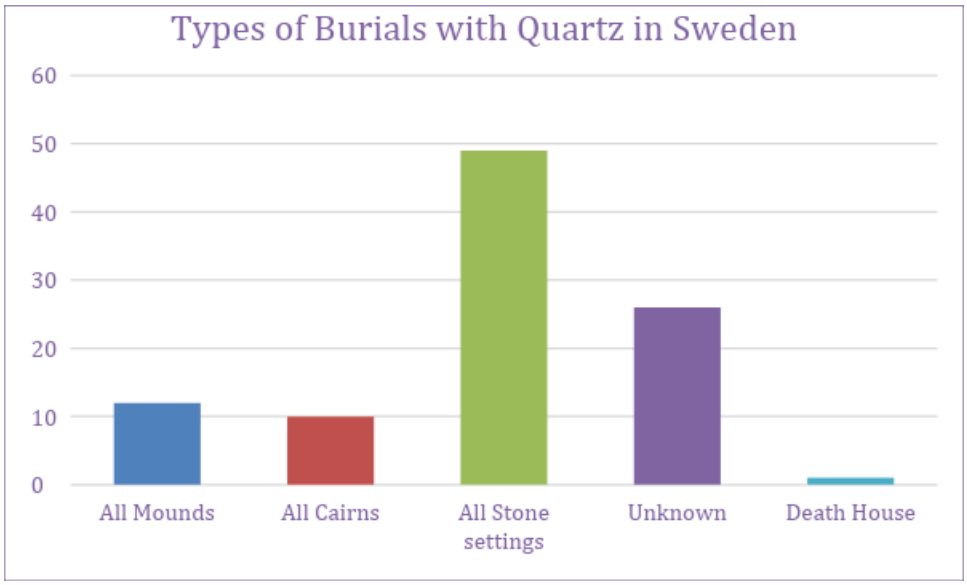


Figure 17. Excavated Swedish Graves with Quartz Inclusions by Burial Type

Only four graves of the 99 were inhumations, 26 (26%) were unknown, 16 (16%) definite cremations, three (3%) mixed cremation and inhumation and 50 (50%) recorded with burnt bone inclusions (see **Fig. 18**). If we work with the theory that the burnt bone registers actually mean cremations, then the cremations jump to 66 (66%). If the cremations dominate here, that would be no surprise as that was the most common form of burial in Iron Age Sweden.

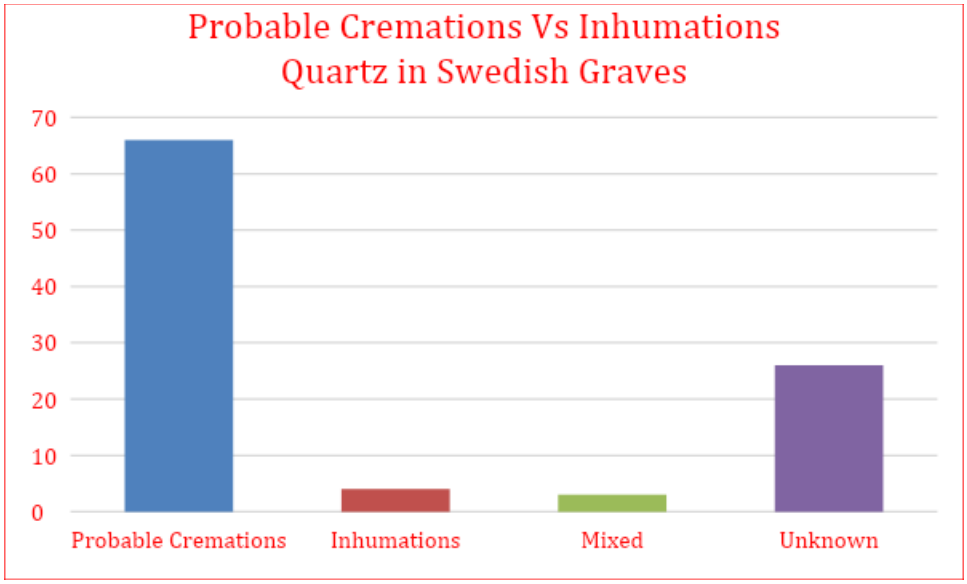


Figure 18. Excavated Swedish Graves with Quartz Inclusions by Cremation vs. Inhumation

Only 20 of the 99 graves had one or more animal species listed as an inclusion (see **Fig. 19**). Of the animals, the most common were dogs (17%), followed by cows (15%) and sheep/goats (15%).

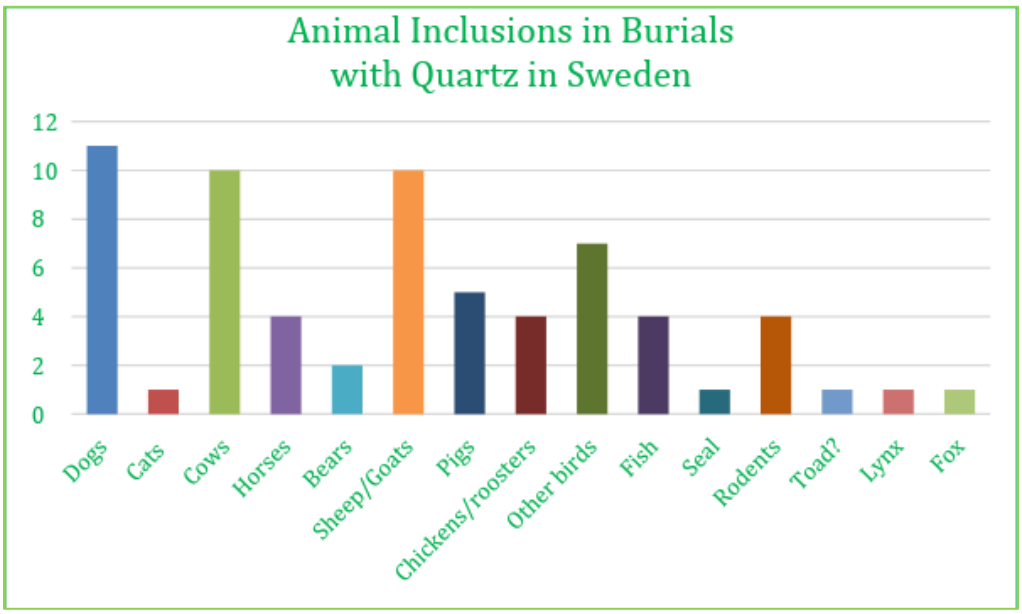


Figure 19. Excavated Swedish Graves with Quartz Inclusions by Animal Inclusions

Of the artifact types (see **Fig. 20**), ceramics (17%) and flint (15%) dominate. However, as the ceramics are likely from cremation urns, their presence does not say much in the way of artifact significance. Flint is interesting here as it is also a stone associated with fire and light. Of course, this is a practical item, but practical items also hold religious and ritual significance. Next is tools (12%) followed by jewelry (12%).

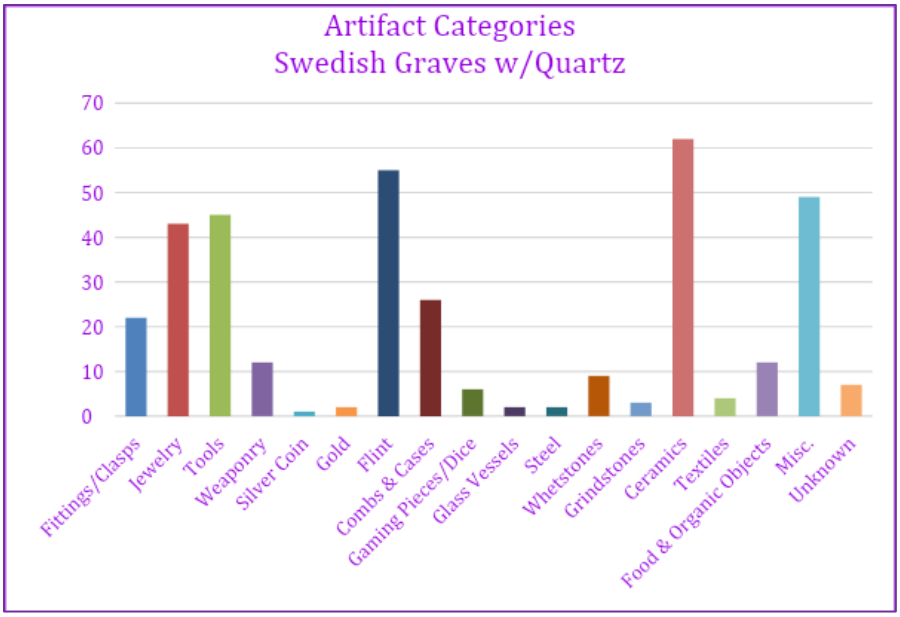


Figure 20. Excavated Swedish Graves with Quartz Inclusions by Artifact Type

Of the other materials of artifacts included (see **Fig. 21**), flint seems to be the highest at 18%, followed by ceramics at 17%. The ceramics are likely from the cremation urns and do not really say much in the way of artifact inclusions. Iron is next also at 17% followed by bronze at 13%. Silver and gold are rare at 0.5% each.

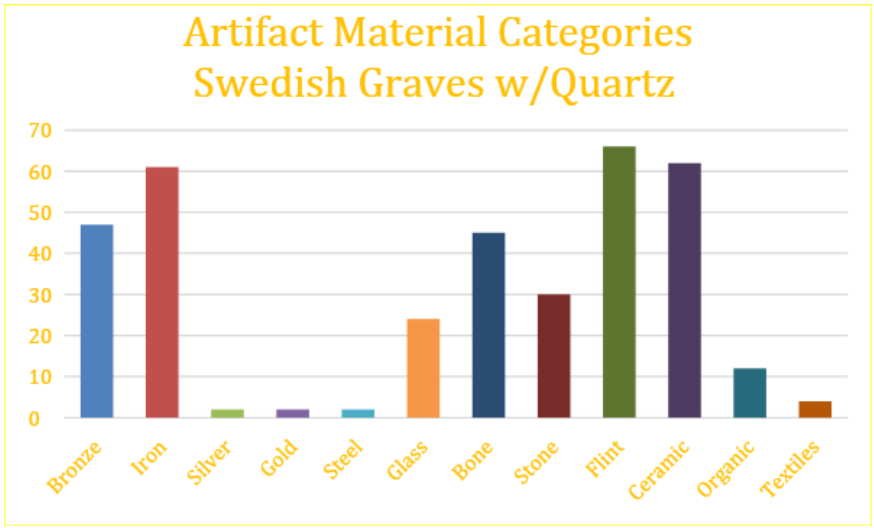


Figure 21. Excavated Swedish Graves with Quartz Inclusions by Artifact Material

Of the skeletal material, there is information on only 4 remains: one child of unknown sex, one female child, and two adult males. This is far too small of a sample to make any kind of statement regarding sex or age, unfortunately. Single versus multiple graves also falls under this unfortunate sample size.

Of the 99 graves, 33 have 5 or more types of artifacts as grave inclusions (33%). 9 do not have inclusions or don't have data (9%). The rest (57, 58%) have less than 5 types of artifacts. This suggests that again, quartz seems to span social statuses.

The number of quartz fragments in graves ranges from 1 to over 70. The larger deposits tend to come from the earlier time periods (Stone and Bronze to early Iron Age).

*The **Danish** material:*

Like Norway, Denmark's records are difficult to navigate. I do not know how many graves are officially recorded in Denmark. Of the Danish material, only 15 graves have been recorded as having quartz or any kind of clear or white stone as inclusions. 8 (53%) of these are from the Stone Age, one from the Bronze Age (7%), two from the Bronze Age to the Old Iron Age (13%), one from the Iron Age (7%), one from the Middle Ages (7%) and two from a time span between the Stone Age to the Iron Age (13%).

There is unfortunately no data available about the skeletal material nor the possible animal inclusions. Only three are cremations and seven are inhumations, with one of the inhumations including burnt bones. It is not clear if they are human or animal or both. This matches with the larger number of Stone Age graves with quartz as inhumations were more common during this time period, with cremations becoming popular later.

Of these graves, the stones are not all pebbles. One is a quartz vein capstone, one is a bead, and one is a strike-a-lite. So unfortunately, this sample size is too small to say anything about as far as grave type and inclusions.

*The **Icelandic** material:*

As of 2017, the total number of individual pagan graves in Iceland is 363. Of these 363, there are 170 individual site locations, 92 single burials, and 78 sites with two or more burials (Eldjárn and Friðriksson 2016:255; 645-653; Gestsdóttir et al. 2020:93). Out of these 363 pagan graves, only 17 (4.7%) have been recorded to have had some kind of quartz or quartz-like stones (see **Appendix L**).

However, I do not believe this number is completely representative. These stones were likely originally seen as unimportant and probably thrown away by earlier antiquarian excavations. The recording of these stones from graves did not start appearing in the records until 1932. This was the *Karlsnes* grave excavated by Matthías Þorðarson, the first official academic to excavate in Iceland. At least 146 of these burials were either recorded before Matthías or were donated to the National Museum.

If we account for this discrepancy, ideally around 217 of the graves would have been excavated properly and would have recorded the quartz and quartz-like stones. This almost doubles the percentage to about 8%, which is more telling of a practice of a small group of people. In fact, 4 of the graves with quartz are from recent excavations (*Dysnes*, *Sýdri-Bakki*, and *Geirastaðir*). One other new site, *Litlu-Nupar*, possibly had some quartz finds as well, although this is from personal communication. The stones have been lost and were never recorded.

As Iceland was only founded in the late 8th century, obviously the pagan graves only come from the Viking Age. Iceland also only has inhumations. No cremations have ever been confirmed.

This is likely due to the lack of trees on the island, which would have been preserved for building houses, ships, and for fuel.

Of the 17 graves, 11 were single graves, and one was a multiple grave (7 individuals). Five of the graves do not have detailed skeletal information. Of the sexes, an equal split, 8 males and 8 females, were found. Of the ages, 13 adults (18+) and 4 juveniles (up to 17 years old).

At least one of the graves was a boat burial (*Vatnsdalur* and possibly *Straumur*). Five were from stone-settings (*Sílastaðir, Ytra-Garðshorn, and Hafurbjarnarstaðir*). Two from *Dysnes* were from likely chambered mounds. The rest of the graves do not have detailed information. It is interesting to note that these two graves from *Dysnes* were in line with each other, while the other four graves were aligned differently.

Of the animal inclusions, only one dog was found. This was at *Vatnsdalur,* which was the multiple burial of seven individuals. Horses, however, were found associated with seven graves. This is no surprise as horses are very common grave finds associated with pagan Iceland.

Of the artifact inclusions (see **Fig. 22**), the highest category was miscellaneous (i.e. iron nails) (31%), followed tools (27%), then jewelry (24%) and then weaponry (8%). Of the material types (see **Fig. 23**), the highest was of course iron (24%), followed by stone (19%), then bronze (16%), bone (14%), and silver (8%).

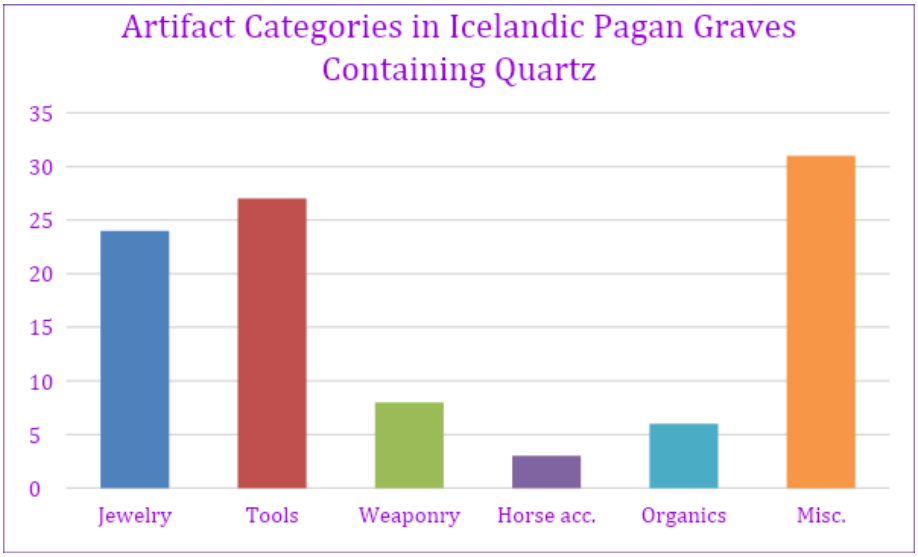


Figure 22. Excavated Icelandic Graves with Quartz Inclusions by Artifact Type

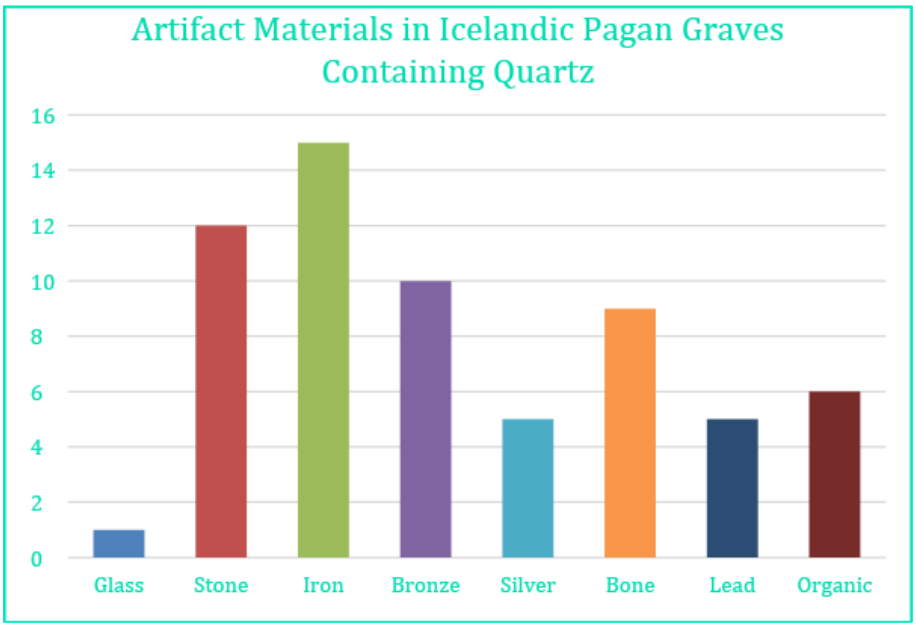


Figure 23. Excavated Icelandic Graves with Quartz Inclusions by Artifact Material

13 of the graves were likely of people of higher or moderate social status. These graves either contained a horse (a highly valuable and prized possession in Viking Age Iceland) or artifacts other than iron nails or fragments. It interesting to note that the occurrence of silver is significantly higher with the Icelandic quartz graves than with the Swedish and Norwegian material.

Geirastaðir is an interesting find, as the quartz pebble did not come from the actual grave. *Geirastaðir*, also called *Kumlabrekka*, is a large boat burial (or two small ones). In 2014, test trenching took place to find the extent of the cemetery. Several features were tested which all turned out to be natural (except for the boat burial). However, one of these natural features, a frost crack, was dug into in the Middle Ages. In this frost crack was found the quartz pebble. This was placed by humans as it was water worn and not local.

At this point, I would like to bring up another interesting quartz find that does not come from a pagan burial. Rather, it comes from the medieval Christian cemetery at *Hofstaðir*. In the Autumn of 2019, Dr. Hildur Gestsdóttir and I sat down to look at one grave in particular: Grave 104A. Something was very strange about this grave. Not only were there two skulls, but one of them (104X) was in the skeleton's lap. However, neither of the skulls actually belong, as the skull that was found in the proper position does not belong to that skeleton. The skull in the lap might be the original skull for the skeleton. It could also be from the nearby Grave 113, which is missing its skull. The 104A skeleton is genetically female while the 104X skull is male.

As interesting as this switching around is on its own, it is important for this study in the that the male skull in the lap (104X) had two quartz pebbles in its mouth (see **Fig. 24**). Clearly, a tradition of quartz and the dead was carried on into the Christian Middle Ages of Iceland. What this might mean will be discussed below.

Figure 24. Hofstaðir skull 104X with stones

6.4. *Archaeology of White Pebbles/Quartz in Other Ritual Contexts*

Here I would just like to briefly mention that quartz and other similar stones have been found throughout Scandinavian and Icelandic history as foundation deposits (Jónsson 2014), as mediums for rock art (Wrigglesworth 2011), and votive bog deposits (Carlie 1999).

The Viking Age long hall of *Hofstaðir* comes up again here. Interpreted as a part-time ritual building, *Hofstadir* had some quartz and zeolites as foundation deposits. The long hall at *Sveigakot* (in Mývatnsveit) also had white stones as foundation deposits. A Viking Age byre and an early medieval house at *Keldudalur* in Skagafjörður also had white stones as a foundation deposits (Traustadóttir personal comm. 2017). The purpose of this has been interpreted as protection for the house and those who resided inside it (Jónsson 2014:55; 58; 61).

These white stones have also been found at the long halls at *Vogur* (in Hafnir), *Granastaðir* (in Eyjafjarðardalur), *Hólmur* (in Laxárdalur), and *Aðalstræti 14-18* (in Reykjavík), although they were not foundation deposits. The medieval monastery site at *Skriðuklaustur* in Skagafjörður also had some white stones (Ingólfsdóttir 2011; Jónsson 2014). Their presence in the places of the living suggest that these people possibly carried them around for amuletic purposes and then took them to their graves for the same purposes (Fuglesang 1989).

In medieval Europe, stones of all sorts were used for medicinal as well as amuletic purposes. The use of stones in pagan times must have been quite pervasive and popular as it did not disappear with the advent of Christianity. In fact, stones were embraced by medieval Christians, even though *Grágás* had outlawed their use in Iceland. A hybridity of pagan and Christian beliefs formed in the stones (Gilchrist 2008:151) and how the stones were used depended on the context (Mitchell 2011:44).

Where stones might have been magical in their own right to the pagans, Christians used them in connection with God and the Saints. Certain stones were "…liable to modification by the condition of health or even by the thoughts of the wearer. In case of sickness or approaching death the lustre of the stones was dimmed, or else their bright colors were darkened, and unfaithfulness or perjury produced similar phenomena" (Kunz 1913:24). Christianity also easily absorbed the use of quartz stones because of its association with water. For Christians, water represents the washing away of sin and the coming to Christ via baptism. The quartz could represent this washing away of original sin. "To medieval Christians, water also symbolized rebirth through baptism, and the light-emitting properties of quartz may have added connotations of purity and salvation through the cleansing fires of purgatory" (Gilchrist 2008:139). Quartz also "…developed associations with

the Apocalypse, making it particularly relevant as a grave good for the Christian dead" (Gilchrist 2008:151).

6.5. Death and Quartz: Irish and Pictish Connections

One of the cultures that shares a similar background of themes and motifs is that of the Irish. It is known that the Norse and the Irish had many interactions as well as influence on each other: "During the last few centuries BC, continental Europe was dominated by Celtic kingdoms with large fortified cities…the Celtic world must also have influenced Scandinavia and its religion at the time" (Andrén 2007:126). The Celts and the Germans/Scandinavians also developed from the same Indo-European ancestors, so their religious and ritual practices share common themes and motifs (Ellis Davidson 1993:146; 159).

Prehistoric Ireland (as well as Wales, Scotland, and the Isle of Man) left behind large passage graves, kerb cairns, recumbent stone circles, and other monuments that were covered in sparkling white quartz. These monuments and graves, called *sí,* were erected in the Neolithic but were subsequently used for thousands of years after as cultural centers. The *sí* also refer to the spirits that are said to live in the monuments and graves as well. The quartz on these monuments are called *cloche geala*, which means "shining stones." Not only are these large monuments and graves covered in sparkling quartz, larger stones and small chippings have also been found inside the graves, as well as in graves in later time periods (Thompson 2005:111;126; Gilchrist 2008:139).

There have been several interpretations of the use of quartz in these graves and monuments. Chris Fowler has argued the that the quartz symbolized the seashore as well as mountains. The symbolism of water may have then reflected the belief in regeneration (Fowler 2004:116; Gilchrist

2008:139;151). This is similar to the quartz' association with water in the Nordic tradition, as well, i.e. the sea goddess Unn's stone.

Ffion Reynolds (2009:156-9) has suggested that the quartz on these large graves and monuments would have glowed at night when rubbed. This would have spurred active participation from the people. When these "living" stones glowed, the presence of the supernatural would be indicated and hence communication could take place.

Tok Thompson (2005:130-132) similarly suggested that the quartz on these graves and monuments would have been a type of spiritual battery. There is a connection between quartz and fire for the Irish, not only in the triboluminescence of the quartz but also the fires of cremations at these sites. The electric charge that causes the triboluminescence might have related to the powers of the sun, as well, as fire. Both give life and regeneration. Therefore, surrounding these places and the dead with quartz would act like charging the spiritual battery of the physical space as well as the dead residing there.

Thompson also suggests that the souls of the human dead could have resided within the physical quartz. The quartz would then represent the transformation of the human's physical body after death (via cremation fire) into a spirit being residing in the quartz. The spirits within the quartz could then be accessed and communicated with by the living (Thompson 2005:130-132).

Andrew Jones, on the other hand, has suggested that the white quartz on the graves could have represented human bone. Quartz's white color, its use in pottery, and it being naturally found in large granite and schist that make up the earth might suggest bone (Jones 1999: 347). This is reminiscent of the Ýmir myth and quartz that Lindgren (2008) proposed.

The color white was also sacred to the Irish as relating to the *sí*, to the human soul, and the dead. Hence, the white quartz was only to be used for the housing of the dead, as it was bad luck

to put them in the houses of the living (Thompson 2005:116-117). This is different to what we see in Norse tradition, as the white quartz was used for both the living and the dead. However, the connection to the dead remains, as seen in the quartz found in the Norse burials.

White quartz in Irish tradition has also been associated with the supernatural "fairy folk." Said to house the "fairy folk," the stones as portables were used in folk medicine as curative tools (Thompson 2005:115-116), which is similar to what we see in the Icelandic tradition. For example, to cure boils, one was to boil white stones with sage, which harkens back to the sacred boiling of white stones in *Guðrunarkviða III.*

The medieval Christian Irish clergy incorporated white quartz into their raiment (Thompson 2005:116). Lay people also included white quartz in their graves as it was often used as prayer counters at holy wells up until the 20th century (Gilchrist 2008:138). What is important here is that like in the Nordic world, the tradition of using quartz in Ireland (and other parts of Britain) has a very long and persistent tradition. This tradition was reshaped over time with a heavily Christian context from the Middle Ages onward (Thompson 2005:123; 126).

The Picts of Scotland, a mysterious Iron Age culture, also used white quartz in their monumental burial constructions. For example, several Pictish platform cairns in Sinclair´s Bay in Caithness were covered in white quartz. "Distinctive features of these platform cairns generally are round and square or rectangular plans, horizontally coursed or upright slab kerbs, corner pillars, median pillars, covering layers of white pebbles, extended inhumations and a barren layer of sand separating the burial from the base level of the kerb," (Ritchie 2011:136).

The earliest dates for these cairns are for the late 5th AD (Ritchie 2011:134). The Norse were known to have contact with the Picts, and it is likely the Proto-Norse did as well. It is even thought that the Picts originated as a cohesive culture from Scandinavia. However, they left no

written record except for stone carvings. What is known about them, besides archaeology, comes from the Romans and later Scots (McHardy 2011:15-16; 32).

Also similar to the burials of the ancient Scandinavians, the Picts re-used their burial structures. Both groups cut into their older monumental burials to lay down new ones (Fahlander 2018:51). These particular burial cairns in Sinclair´s Bay are also associated with water as they found along a bay (Ritchie 2011; Friðriksson 2013:246; 323). Perhaps this represents a tradition stemming from a shared ideology that travelled from Scandinavia to Scotland.

Lastly, the Picts also made peculiar painted white quartz pebbles. They tend to be found concentrated in certain areas of Scotland, with the most abundant coming from the Shetland islands. These painted pebbles come from various contexts, ranging from floor layers to graves to foundation deposits and post-abandonment deposits. They are usually all around the same size and fit comfortably in one´s hand. The most common designs are circles and dots, but linear designs, S-scrolls, and saltires are also known. Several ideas have been put forth as to their purpose, which include amulets, shamanic tools, and even as slingshots or for use in metalworking. These quartz pebbles were also important enough to be repainted for continual use. Regardless of their true intended purposes, it is clear that white quartz was an important cultural object to the Picts (Arthur et al. 2014:10-11).

6.6. Discussion

From the archaeological data, we can come to a few conclusions. First, there seems to be a connection between quartz and adult females in Norway. Second, there is a small association with flint and stone settings with quartz in Sweden. Third, the Norwegian and Swedish graves tend to span all social statuses. The Icelandic material suggests an association with adults with the sexes

equally distributed. These demographic variations could indicate variations on a shared older tradition. The stones do seem to share one thing in common: they span the social statuses. These stones were easily accessible in both Scandinavia as well as Iceland, therefore they could have been utilized by everyone. By combing the data with the literature, a few interpretations come to the foreground.

One of the Icelandic words for chalcedony is "draugasteinn," which translates to "ghost stone." "Draugasteinn" suggests supernatural qualities assigned to this stone. Icelandic geologist Guðbjartur Kristófersson says that the name "draugasteinn" is derived from the spark of its triboluminescence (Jarðfræðiglósur: Kvars holufyllingar). Folklorist Jón Árnason also says that in Icelandic folklore, the "draugasteinn" protects one from malevolent ghosts. It has been suggested that the "draugasteinn" or chalcedony found in the graves of pagan Scandinavians could have served to keep the ghosts in their graves (Norden 1928:364).

Icelandic folklore and the medieval literature are riddled with ghost stories. Sometimes they are benevolent and sometimes they are malicious. They often live in mounds and sometimes need to be put back (Chadwick 1946). This could derive from an actual pagan practice of putting these "ghost stones" in the graves to keep ghosts at bay, particularly people that the living did not want to come back. It could also be a medieval interpretation. Often times Icelandic people in the middle ages robbed the old pagan graves. They might have come across these stones then and wondered about them as well. This would explain the quartz found in the medieval robber's hole in the frost crack at *Kumlabrekka*.

The *Kumlabrekka* frost crack likely fooled the medieval person(s) as it did the archaeologists: both of whom were looking for pagan graves. The medieval person(s) possibly found the quartz in the adjacent boat grave and lost it while digging up the frost crack. Another

possibility is that the quartz was purposefully put in the frost crack either as a type of memorial to an interpreted missing body, to keep ghosts at bay, or both (Klindt-Jensen 1970:215).

We have seen in pagan Scandinavia and Iceland that the burial rituals were not one-time events. Rather, the people came back at different times and moved bodies/skeletons around (Klevnäs 2007; Roberts and Hreiðarsdóttir 2013). Perhaps the stones in these cases were meant to keep the spirits at bay while the skeletons were being disturbed during these practices. Perhaps, like the Irish, the quartz was used to house the spirits of the dead, thereby containing them to prevent them doing harm. The use of stones to keep ghosts at bay seems to have persisted, as evidenced by the quartz found at the *Hofstaðir* cemetery.

Solveig Beck (Pers. Comm.) has suggested that the two stones found in the skeleton's mouth at *Hofstaðir* could be the remains of a fading pagan burial tradition. It is possible that this pagan was exhumed and reinterred in the Christian cemetery. When the Christians exhumed this pagan, they could have decided to hide evidence of the pagan ritual by placing the stones in the mouth when they reinterred the deceased. The stones could also represent a person who was not quite fully Christian when they died.

However, I think it is more likely, in light of the body parts being switched around, that this was a person that the community did not want to come back to the realm of the living. Medieval European Christians have certainly been known to use stones, bricks, or stakes to keep the dead in place. Suspected witches would have been a type of person that medieval Christians would want to keep in the ground (Ellis 1968:95; Walker 1998; Barrowclough 2014).

For example, another case from Iceland is in the medieval Christian cemetery of Keflavík in Skagafjörður. Grave 38 had a 900kg rock placed on top of the surface as a marker. Inside the grave, on top of the coffin was another large stone that was over the skeleton's head. The grave

fill itself consisted of heavy packed gravel (Zoëga and Bolender 2017:35). All of these extra stones, especially the 900kg one, would have required a significant amount of energy and time. Therefore, this individual was very likely to have been someone the community wanted to keep from coming to bother the living.

Icelandic sagas and folklore mention malicious ghosts that act almost like vampires whom the living wanted to keep at bay (Faraday 1906:411; MacCulloch 1930:309). Switching the body parts at *Hofstaðir* would have been intended to confuse the ghost and the stones could also have been a tool to contain the spiritual entity bound to the earth. It is likely that these stones were meant to keep the ghost of the individual in the ground. This individual could have been seen as a witch by the community. As the skull belongs to a man, this would seem out of place for medieval Europe.

However, the witch craze came late to Iceland (17^{th} - 18^{th} C.) and also victimized men much more frequently than women (Ankarloo et al. 2002:84-85; Jóhannesson 2013:46). As discussed earlier, men in Iceland were practitioners of magic in medieval Iceland, so the early beginnings of witch persecution is equally as likely for men as for women. This is an instance of the use of magic stones to bind a spirit that persisted into Christian times.

Anne Carlie (1999), similar to Lindgren, suggests that white quartz in Swedish Viking Age graves is a recreation of cosmological myth. The quartz and similar stones in the Icelandic graves could also have served as a recreation of cosmological myth, such as the realm of *Glæsisvellir*, the primordial giant *Ýmir*, and *Völund the Smith*.

Perhaps these stones were meant as spiritual guides to the afterlife. Acting as a "sunstone," quartz or calcite might have guided the way to a particular place, such as *Glæsisvellir*. The stones could have also just represented the deceased's intentions to end up in a place like *Glæsisvellir*.

For example, perhaps the two aligned graves at *Dysnes* that contained quartz might designate a different path in the Underworld than the other burials in the same cemetery.

Something particularly interesting is that some of the white Icelandic stones (opal and zeolite) found in the graves look a lot like bone (see **Figs. 25-26**), rather than the regular quartz pebbles. Perhaps these stones were thought to be in fact the bones of *Ýmir*. By putting stones into their graves, people may have been hoping to recreate the creation myth which would rebirth them into their new lives after death.

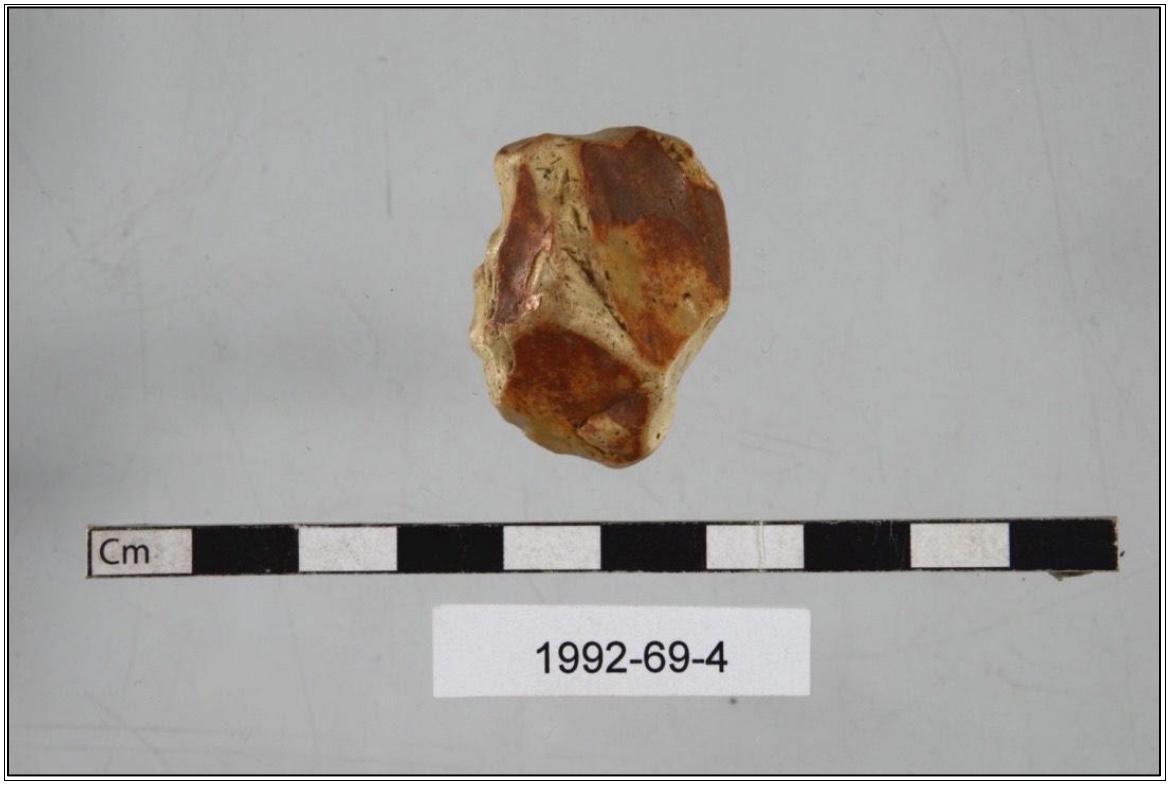


Figure 25. Opal that resembles bone found in Icelandic grave, Kornhóll Grave 2

Figure 26. Zeolite that looks like bone found in Icelandic grave, Sílastaðir Grave 3

The Norse pagans, like the Irish, could have also seen quartz and similar stones as houses for either supernatural beings or their dead ancestors. Likewise, they could have perceived these stones as "alive." The eternal nature of the stones (Kunz 1913:2;7) along with their triboluminescence could have been a way to keep their dead alive after undergoing the physical transformation of death. When going back into the graves at later times, the living could communicate with the dead via the stones. The Icelandic literature suggests this might have been the case as the dead were said to inhabit their burial mounds as ghosts.

Sólveig Beck (2020 Pers. Comm.) has suggested that the stones, particularly the large amount of quartz found in Grave 9 at Ytra-Garðshorn, could possibly suggest a type of travelling merchant. An individual could have gone around collecting, and then selling these stones on their "sales" trips. Beck has also suggested that these stones could have been used by the magic workers

known as *völvur* (*völva* sing.). Hence the large amount in Grave 9 might suggest a völva's and/or merchant's leftover inventory.

18th century Icelandic scholar Ólafur "Olavius" Ólafasson mentioned white quartz as something traditionally important to Icelanders. During his travels in the Westfjords of Iceland, Olavius described the local superstitions, such as quartz 's ability to ward off ghosts. He said that several stones were kept together in a pouch and were family heirlooms that were passed down the generations. Olavius also mentioned that it was considered a horrible loss if the grouped stones were split up or lost altogether (Ólafsson 1964).

What is clear is that an association between the dead and quartz (and similar stones) has been made for a very long time in Scandinavia. This tradition changed and evolved over time and was eventually carried over to Iceland. The medieval Icelandic literature and later folklore give us hints as to what the meanings might have been at different places in time in space.

CHAPTER SEVEN:

DISCUSSION AND CONCLUSION

7.1. Discussion

I chose the cats and the quartz as my two case studies because they both meet the requirements as indicators of ritual activity set by Renfrew (1994). Both *Focus Attention* by functioning as portable equipment. They are both found in *Boundary Zones* between this world and the next, which include not just the graves but also in other ritual contexts. Both cats and quartz represent the *Presence of the Deity* in their references to the goddess Freyja (cats) and the primordial giant Ýmir (quartz), as well as their presence in funerary rituals. And lastly, both are found as votives and the cats are also found as animal sacrifice, which falls under the *Participation and Offering* category.

The data obtained from these case studies provided important information not just for the purposes of this dissertation, but also in their own rights as individual research foci. Both cats (and felines in general) and quartz (and other similar stones) have been found to have a *long dureé* as symbolic, religious, and ritual items in the Nordic world.

> *"In discussing the longue dureé, it is important to reiterate that such a concept does not imply that meanings do not change, or that by examining modern or recent examples we can 'really know' the meanings behind the older examples: it simply means that, as traditions are remembered and re-created, and as each re-creation builds on the previous, certain motifs and associations can occasionally be carried over great spans of time"* Thompson 2005:112.

The above Thompson quotation holds a lot of value for this dissertation. Although Thompson was speaking about quartz on Neolithic Irish megalithic graves, the same holds true for the two case studies of this dissertation. Both the cats and quartz as grave goods maintained long

traditions in the Nordic world. Not only were these both symbolic grave inclusions, but they also played symbolic roles in the everyday lives of the living. Their symbolic meanings were reworked over the generations and remnants can even be seen in today's modern world.

Cats (and other felines) were used in religious ritual as sacrifices and grave offerings in Scandinavia from the Stone Age up through the Iron Age. Long before the domestic cat made its way to Scandinavia, the feline was present in the form of wildcats. The ancient Scandinavians knew them and at least some groups revered them. We see this reverence as wildcats found in graves as well as bog votives in the Stone and Bronze Ages. Wildcats are fertile and independent creatures yet are still social. These qualities are likely what the ancient people admired. Their behavior does not differ much from the domestic cat (Berteselli et al. 2014).

In the Roman Iron Age, the Nordic world was introduced to the domestic cat, likely from the Romans themselves. As the Iron Age Scandinavians increased contact with the rest of Europe and the Eastern world, the domestic cat's popularity in Scandinavia amplified. This culminated with a drastic increase in domestic cats as grave goods in at least Swedish graves in the Viking Age. The old reverence for wildcats transformed into a reverence for the domestic cat. The domestic cat likely represented fertility and the wild, chaotic forces of the supernatural.

Cat fur was also possibly a piece of ritual clothing in the Iron Age. This tradition likely started in the Stone Age, as well, as wildcats were also used for fur. Evidence of domestic cats skinned for their fur has been found as possible pelts in graves (represented by their paws), particularly in Viking Age Sweden. Late Viking Age and early Medieval sites in Scandinavia also suggest a small industry of cat fur production.

After the advent of Christianity, the cat, who was associated with the fertility goddess Freyja, was demonized alongside her. As towns and Christianity grew, the cat's role changed from

symbolic liminality (a piece of the wild in the home) and spiritual guide (for both the dead and magic practitioners) to practical pest control and a scapegoat of the Christian Devil. Today, the modern house cat has reclaimed its status as a revered animal in the forms of one of the most popular pets in the world and internet stardom.

In the future, I would like to see some more *aDNA* research done on cat remains, particularly on the Swedish grave material. The coat color might indicate a much larger pattern than we currently know about. Also, this kind of research could tell us about trade patterns of cats in the Nordic world. There is already some interest in this from Swedish archaeologists, so this research is attainable.

Quartz (and other similar stones) in Scandinavia also has roots in a very deep past with humans. A very long tradition of associating the dead with quartz extends all the way back to the Stone Age and could have been related to the monuments and graves of Neolithic Ireland and Iron Age Scotland. The quartz inclusions in Stone Age Scandinavian graves likely started off as flake debris from tool production. Stone tools and their production likely had magic and religious aspects as they would have been necessary for survival and societal advancement (Taçon 1991; Lindgren 2004; Cooney 2016; Driscoll 2016).

This reverence for stone tools and its debris likely evolved into a reverence for stone itself. As the symbolism of quartz was reworked over the millennia, the cosmological myths of the Bronze and Iron Ages were created. In the Middle Ages, it was reworked yet again into talismans. Today, quartz is still used in holistic practices in the New Age movement as well as ritual objects in earth religions such as Wicca.

A common factor between the two case studies is color. White was a color of religious importance in the ancient North, as seen in both the cats and quartz. The white cat fur may have

just been a cheaper version of white ermine, which was the fur of royalty in the Middle Ages (Colling 1986:196). However, Hoftun (1997) and Carlie (1999), supported by Dumezil (1973) and Eliade (1968), have made a compelling argument that white was a symbolic color to the pagans of the North. The white cat fur was then likely a piece of pagan priestly raiment, as was attested by the prophetess *Þorbjörg Lítilvölva* in the literature, as well as the white-gloved cats found at the cult site of *Hofstaðir*, Iceland.

White quartz and similar stones were also symbolically important because of their color. As humans did not understand the chemistry involved, they made myths to explain the variety of colors found in stones. In turn, some of these colors were thought to have different kinds of influences on the human body or mind (Kunz 1913). Most of the stones found in the graves examined that had no obvious purpose (such as tools or strike-a-lites), were some variation of white. The evidence from the literature tells us that white stones were sacred and possibly related to the cosmological myths of *Ýmir*, as well as being items with protective properties. Their presence as foundation deposits also confirm their protective quality.

7.2. Conclusion

7.2.1. Results

As a reminder, the rules I abided by when using the literary sources are:

1. Identify independent sources versus derivative ones

2. Identify who wrote it

3. Identifying when it was written

4. Identifying why it was written

5. Identify how the source interacts with other sources about the topic in question

6. Identify how the archaeology compares

Most of the sources I utilized for the two case studies come from the *Poetic Edda,* the *Prose Edda,* the *Family Sagas,* and the *Heroic Sagas*. As discussed in **Chapter 4**, these sources are mostly reliable. In regard to the cat case study, the only questionable sources are the *Family sagas, Heiðarvíga saga,* as half of it was destroyed and subsequently copied from memory. *Heiðarvíga saga* only mentions cats as a term of emasculation and hence could be a Christian invention. This reference to cats does not match most of the sources, and hence does not significantly contribute to the evidence at hand and is not a detriment.

Orms þáttur Stórólfssonar and *Vatnsdæla Saga* are interesting to note, as well. They both mention black cats associated an evil character (a troll and a wizard). It is not far-fetched to say that this is a production of the medieval Christian association with the Devil. Hence, the association of black cats with monsters or bad pagans was likely due to Christian fear. However, there could be some reality found here. As discussed in **Chapter 5**, the cat was demonized alongside the pagan fertility goddess Freyja, and hence the color black could have been a later addition.

Regarding the white pebbles/quartz case study, the unreliable sources are the *Heroic Sagas, Þorsteinn þáttur bæjarmagns* and *Bósa saga ok Herrauds* as there are too many scattered copies of both. Both sagas reference *Glæsisvellir* and could be due to Christian interpretation. However, other more reliable sources reference *Glæsisvellir,* which makes these sources not imperative. These sagas do not contribute much to the literary evidence and hence do not do any damage. *Heiðarvíga saga* was also a source for this case study, but again, its contribution was minimal. Its reference was also quite different from the other sources. It is the only source which mentions a

multi-colored stone (with white as a component) that acted as a form of imitative magic (Frazer 1922), a white stone creating a white hailstorm. Again, this source was not an imperative contribution and its inclusion is mentioned with skepticism.

In summary, the two case studies confirm consistency in the literary sources and the archaeology. All the reliable and useful literary references to cats are of magic, fertility, or supernatural forces. The archaeology verifies this as the cats are present as grave goods, votives, and ritual sacrifices. Grave goods, votives, and ritual sacrifices all signify a belief in magic as they imply a belief in human ability to change reality by means of performing rituals. These finds also signify a belief in the fertile properties of the cats. As grave goods, the cats are meant to either be regenerative agents or to as spiritual guides in the birth of their new lives. As votives and ritual sacrifices, the cat was used as a fertility agent of the land and the community, which was possibly meant to appeal to the goddess Freyja. Both grave goods and votives/sacrifices indicate an attempt at contacting the supernatural forces as they took place at liminal spaces and also were likely part of ritual clothing.

All the reliable literary references to the stones are to supernatural forces, to the dead, and to protection. The archaeology verifies this in that the stones are found in grave goods, as votives, and as foundation deposits. Both grave goods and votives indicate an attempt at contacting the supernatural forces as they took place at liminal spaces. The foundation deposits as well as the grave goods indicate a belief in the stones' protective qualities. The stones in the graves are protective in that either the stones themselves possessed protective properties for their dead owners or in that the stones kept the dead in the ground and therefore protective for the living, instead.

The results of this dissertation are therefore positive. It is quite possible to use the Icelandic literary corpus systematically and productively in interpreting Icelandic archaeology. The key is

to not use the literature for the foundational hypothesis, but rather as a complement to the archaeology. It seems like a daunting task to work through all the literary material. However, once the initial manuscript investigation is done, the process it is quite simple from there.

Neil Price (2019:97) has argued that "The depth of linguistic knowledge that a philologist would regard as a prerequisite for such studies may simply not be necessary for an archaeological examination of the same material" and I heartily agree with this perspective. It is certainly enough for an archaeologist to understand the context of the literary sources without a super in-depth examination of those texts. A lot is to be gained using these sources and many important discussions could take off in Iceland from their use.

7.3. Future Research Perspectives

I would like to take the time at this point to discuss the obstacles which the archaeologists seeking to work with Icelandic artifactual and textual material face. First, there is a language problem. Most of the reports about Icelandic sites are written only in Icelandic. This is a very difficult language to master and the translator applications are not currently good enough for an outsider to properly utilize. This has led to a huge lack of outside peer review, which then created theoretical isolation. Not much in the way of theoretical paradigm shifts have taken place in Iceland since Kristján Eldjárn in the 1950s. As the universities in Iceland do not have well-funded archaeology departments, not much in the way of theory has progressed there either.

The other problem is that of a lack of archaeological funding in Iceland in general. Most archaeology conducted in Iceland is commercial, as with most places. However, the number of employed archaeologists is comparatively low. Research funding provided by the government has never been great, but recently it was reduced even more. This is a major problem as there is already a huge backlog of post-excavation work yet to be done. Most of the limited manpower and funding

goes towards basic reports for corporations, which leaves little for academic research. Much of the research funding comes from outside sources, such as the NSF. As these sources are linked to very specific projects, there is again not much in the way of Icelandic theoretical development.

With this in mind, it would be of future interest to me to invest more time into theoretical development in Icelandic archaeology. This would start with working to remove the stigma from using the texts in conjunction with the archaeology. This would involve more research which incorporates the literature in a responsible and meaningful way, such as done in Sweden. Second is encouraging Iceland to make its data more accessible to outside peers, which would include writing more in English. A centralized and searchable database of Icelandic archaeological sites and finds, similar to Sweden's, would also allow for a much wider audience and generate more discussion with outside peers.

The current online database, *Sarpur*, run by the *Þjóðminjasafn Íslands* (the *National Museum of Iceland*), is far from comprehensive, is only in Icelandic, and is not very user-friendly. Also, most of the information in the database is of modern cultural heritage. Icelandic archaeologist Adolf Friðriksson has wanted to create a centralized and accessible database for Icelandic archaeological sites for quite some time. Friðriksson has already begun one he calls *Ísleif*, which, as of 2018, consists of about 6000 farm units and 100,000 sites (Pálsson 2019:5). Unfortunately, time and funding has not allowed *Ísleif* to become accessible online nor in English.

A prototype of an online accessible database of Icelandic archaeology and other interdisciplinary material, called *dataArc*, however, is currently in the works, by archaeologists Gísli Pálsson and Kevin Gibbins and data manager Lynn Yarmey. *Jarðabókin (The Icelandic historical geographic information system*) is another online database project, part of *Ísleif*, that combines GPS locations on an interactive map with historical documents that describe land usage

from roughly AD 1500-1860. Emily Lethbridge, a saga scholar, has created the *Icelandic Saga Map*, which is another interactive map, but of saga locations within Iceland. Hopefully more will be done with these projects in the near future.

More specifically, it would be highly beneficial not only for Icelandic archaeologists, but other archaeologists working in the Nordic world as well as folklorists and saga scholars, to create a searchable digital database of all of the available texts. Of course, there are issues of copyright involved, but this could be dealt with, especially with the older transcriptions in Icelandic. English and other language translations can also be taken care of via translations that are already in the public domain, such as Henry Adams Bellows' 1923 *Poetic Edda*. Motif Indices for Icelandic literature are available at the *Stofnunun Árna Magnússonar* (The *Árni Magnússon Institute for Icelandic Studies*) in Reykjavik, but they are not digitized nor easily accessible. Beginning with the digitization of the Motif Indices would go a very long way.

Currently, *The Icelandic Saga Database*, maintained by Sveinbjörn Þórðarson, contains transcriptions and some translations of most of the Icelandic Sagas. However, this is not exhaustive of all of the sagas, and of course does not contain any other types of texts. The development of similar databases for the *Poetic* and *Prose Eddas* as well as later folklore would also be extremely helpful.

Along these lines, it would of great interest to me to invest in creating an archaeologist (and other non-literature related scholars) – friendly user manual for the texts. A simple guide on each source's reliability could be put in place. This guide could then be updated regularly as new research comes in. This would also be digitized, and the edits would be made in real-time. Of course, this would only be possible with the collaboration of Icelandic literature scholars. I believe

there would be interest in this on at least the literary scholars' part as they are often-times incorporating archaeology into their own work.

The collaboration between archaeologists and scholars from other fields is essential for the future of Icelandic archaeology. Without these partnerships, the archaeology in Iceland will continue to stagnate and lag behind its Scandinavian peers. Collaboration with ecologists has been in the works for quite some time, but now is the time to create firm relationships with saga scholars, folklorists, and other literary experts. Archaeologists operating in Iceland need to shed their anxieties about working with the literature and embrace its potential in enhancing our understanding of Iceland's past and its future.

APPENDIX A

ICELANDIC LITERATURE CATEGORIZED

Eddaic Poems (Eddukvæði):
Poems of the Gods: *Völuspá, Hávamál, Vafþrúðismál, Grímnismál, Skírnismál, Hárbarðsljóð, Hymiskviða, Lokasenna, Þrymskviða, Álvissmal, Baldrs Draumar (Vegtamskviða), Rígsþula, Hyndluljóð, Svipdagsmál (Gróugaldr and Fjölsvinnsmál),* and *Gróttasöngr.*

Heroic Poems: *Völundarkviða, Helgakviða Hjorvarðssonar, Helgakviða Hundingsbana I, Helgakviða Hundingsbana II, Frá dauða Sinfjötla, Grípisspá, Reginsmál, Fáfnismál, Sigrdrífumál, Brot af Sigurðarkviða, Guðrúnarkviða I, II, and III, Sigurðarkviða en Skamma, Helreið Brynhildar, Drap Niflungar, Oddrúnargrátr (Oddrúnarkviða), Atlakviða, Atlamál, Guðrúnarhvöt, and Hamðismál*

Prose Eddas (Snorra Edda): *Prologue, Gylfaginning, Skáldskaparmál,* and *Háttatal*

Historical Sagas: *Landnámabók* and *Íslendingabók*

The Kings' Sagas (Konungasögur): *Heimskringla, Orkneyinga saga, Færeyinga saga, Óláfs saga Tryggvasonar, Helgisaga Óláfs konungs Haraldssonar, Ágrip af Nóregskonungasögum, Morkinskinna, Fagrskinna, Sverris saga, Böglunga saga, Knýtlinga saga, Hákonar saga Hákonarsonar, Magnúss saga lagabœtis, Hulda-Hrokkinskinna, Óláfs saga Tryggvasonar en mesta,* and *Jómsvíkinga saga.*

The Contemporary Sagas (Samtíðarsögur): *Sturlunga Saga*

The Bishops' Sagas (Bisupska sögur): *Kristni saga, Húngrvaka, Þorláks saga biskups hin elzta, Þorláks saga biskups hin yngri, Páls saga biskups, Jóns saga biskups, Árna saga biskups Þorlákssonar, Laurentius saga Hólabiskups,* and *Saga Guðmundar Arasonar Hólabiskups*

Short Tales (Þættir): *Þorvaldi Viðförla, Ísleifs þáttr biskups, Jóns þáttr Halldórssonar, Söguþáttr af Jóni Biskupi Halldórssyni, Söguþáttr um Gottskálk Keniksson, Söguþáttr um Skáholts Biskupa, Þáttr og Ættartala um Ögmundar biskups Pálssonar í Skáholti, Þáttr og Ættartala um Jóns Biskups Arasonara Hólum, Þáttr og Ættartala Gizurar Biskups Einarssonar í Skáholti, Þáttr og Ættartala Marteins Biskups Einarssonar í Skáholti, Þáttr og Ættartala Gísla Biskups Jónssonar í Skáholti, Þáttr og Ættartala Odds Biskup Einarssonar í Skáholti, Þáttr um Herra Ólaf Hjaltason á Hólum,* and *Þáttr um Herra Gudbrand Þorlákssonbiskup á Hólum og hans ættmen*

The Family Sagas from Vésteinn Ólason 2005**:**
Sagas of Icelanders (Íslendingasögur): *Bandamanna saga, Bárðar saga Snæfellsáss, Bjarnar saga Hítdælakappa, Droplaugarsona saga, Egils saga, Eiríks saga rauða, Eyrbyggja saga, Finnboga saga ramma, Fljótsdæla saga, Flóamanna saga, Fóstbræðra saga, Grettis saga, Gísla saga Súrssonar, Grænlendinga saga, Grænlendinga þáttur, Gunnars saga Keldugnúpsfífls, Gunnlaugs saga ormstungu, Hallfreðar saga vandræðaskálds, Hallfreðar saga vandræðaskálds, Harðar saga og Hólmverja, Hávarðar saga Ísfirðings, Heiðarvíga saga, Hrafnkels saga Freysgoða, Hænsna-Þóris saga, Kjalnesinga saga, Kormáks saga, Króka-Refs saga, Laxdæla saga, Ljósvetninga saga, Njáls saga, Reykdæla saga og Víga-Skútu, Svarfdæla saga, Þórðar saga hreðu, Þorskfirðinga saga, Þorsteins saga hvíta, Þorsteins saga Síðu-Hallssonar, Valla-Ljóts saga, Vápnfirðinga saga, Vatnsdæla saga, Víga-Glúms saga, Víglundar saga* and *Olkofra saga.*

Short Tales of Icelanders (Þættir) from Ashman Rowe and Harris 2005: *Arnórs þáttur jarlaskálds, Auðunar þáttur vestfirska, Bergbúa þáttur, Bolla þáttur, Bollasonar, Brandkrossa þáttur, Brands þáttur örva, Draumur Þorsteins Síðu-Hallssonar, Egils þáttur Síðu-Hallssonar, Einars þáttur Skúlasonar, Gísls þáttur Illugasonar (Hulda og Hrokkinskinn, A-gerð & B-gerð Jóns sögu helga), Gull-Ásu-Þórðar þáttur (AM 518 4to & Morkinskinna), Gunnars þáttur Þiðrandabana, Halldórs þáttur Snorrasonar hinn fyrri, Halldórs þáttur Snorrasonar hinn síðari, Hrafns þáttur Guðrúnarsonar, Hreiðars þáttur, Hrómundar þáttur halta, Íslendings þáttur sögufróða, Ívars þáttur Ingimundarsonar, Kumlbúa þáttur, Mána þáttur skálds, Odds þáttur Ófeigssonar, Orms þáttur Stórólfssonar, Ófeigs þáttur, Óttars þáttur svarta (Bergsbók, Bæjarbók, Flateyjarbók, & Tómasskinn), Sneglu-Halla þáttur (Flateyjarbók & Morkinskinna), Stjörnu-Odda draumur, Stúfs þáttur hinn meiri, Stúfs þáttur hinn skemmri, Svaða þáttur og Arnórs kerlingarnefs, Sörla þáttur, Vöðu-Brands þáttur, Þiðranda þáttur og Þórhalls, Þorgríms þáttur Hallasonar, Þorleifs þáttur jarlaskálds, Þormóðar þáttur (Flateyjarbók & Fóstbræðra sögu),Þorsteins þáttur Austfirðings, Þorsteins þáttur forvitna, Þorsteins þáttur Síðu-Hallssonar (Flateyjarbók & Morkinskinna), Þorsteins þáttur skelks, Þorsteins þáttur stangarhöggs, Þorsteins þáttur sögufróða, Þorsteins þáttur tjaldstæðings, Þorsteins þáttur uxafóts, Þorvalds þáttur tasalda, Þorvalds þáttur víðförla, Þorvarðar þáttur krákunefs, Þórarins þáttur Nefjólfssonar,Þórarins þáttur ofsa, Þórarins þáttur stuttfeldar, Þórhalls þáttur knapps,* and *Ögmundar þáttur dytts*

The Heroic Sagas (Fornaldarsögur): *Völsunga saga, Ragnars saga loðbrókar, Af Upplendinga konungum, Áns saga bogsveigis, Ásmundar saga kappabana, Bósa saga ok Herrauðs, Egils saga einhenda ok Ásmundar berserkjabana, Frá Fornjóti ok hans ættmönnum, Friðþjófs saga ins frækna, Gautreks saga, Gríms saga loðinkinna, Göngu-Hrólfs saga, Hálfdanar saga Brönufóstra, Hálfdanar saga Eysteinssonar, Hálfs saga og Hálfsrekka, Hervarar saga og Heiðreks, Hjálmþés saga ok Ölvis, Hrólfs saga Gautrekssonar, Hrólfs saga kraka ok kappa hans, Hrómundar saga Gripssonar, Illuga saga Gríðarfóstra, Ketils saga hængs, Sturlaugs saga starfsama, Sögubrot af nokkrum fornkonungum í Dana ok Svíaveldi, Sörla saga sterka, Yngvars saga víðförla, Ynglinga saga, Þiðreks saga, Þjalar-Jóns saga, Þorsteins saga Víkingssonar,* and *Örvar-Odds saga*

Short Tales (Þættir): *Helga þáttr Þórissonar, Jökuls þáttr Búasonar, Norna-Gests þáttur, Þáttur af Ragnars sonum, Sörla þáttur eða Héðins saga ok Högna, Þorsteins þáttr bæjarmagns, Tóka þáttur Tókasonar,* and *Völsa þáttur*

Saints'/Holy People's Sagas (Heilagra manna sögur): *Agathu Saga Meyjar I, II, & III, Agnesar Saga Meyjar, Alexis Saga, Ambrosius Saga Byskups, Antonius Saga, Augustinus Saga, Barbare Saga, Benedictus Saga, Blasius Saga, Brandanus Saga, Ceceliu Saga Meyjar, Crucis Legendae (Origo Crucis), Dionysius Saga, Dorotheu Saga, Duggals Leizla, Erasmus Saga, Fides Spes Caritas, Gregorius Saga, Hallvarðs Saga, Katrine Saga, Laurentius Saga, Lucie Saga, Malens Saga, Margretar Saga, Mariu Saga Egipzku I & II, Marthe Saga ok Marie Magdalene, Martinus Saga Byskups I, II, & III, Mauritius Saga, Maurus Saga, Michaels Saga, Niðrstingar Saga I – IV, Nikolaus Saga Erkibyskus I & II, Ólafs Saga hins Helga, Pals Sága, Eremita, Placidus Saga I, II, & III, Quadraginta Militum Passio, Remigius Saga, Sebastianus Saga, Septem Dormientes, Silvesters Saga, Stephanus Saga, Theodorus Saga, Thomas Saga Erkibyskups, Vincencius Saga, Vitus Saga, Vitae Patrum,* and the *Navneregister*

The Romantic/Chivalric Sagas (Riddarasögur) from Kalinke and Mitchell 1985**:**
Translated Sagas: *Alexanders saga, Amícus saga ok Amilíus, Bevis saga, Breta sögur, Elis saga ok Rósamundu, Erex saga, Flóres saga ok Blankiflúr, Flóvents saga, Ívens saga, Karlamagnús saga, Möttuls saga, Pamphilus ok Galathea, Parcevals saga, Valvens þáttr, Partalopa saga,* and *Strengleikar*

Original Medieval Icelandic: *Adonias saga, Ála flekks saga, Blómstrvallasaga, Bærings saga, Dámusta saga, Dínus saga drambláta, Drauma-Jóns saga, Ectors saga, Flóres saga konungs ok sona hans, Gibbons saga, Grega saga, Hrings saga ok Tryggva, Jarlmanns saga ok Hermanns, Jóns saga leikara, Kirialax saga, Klári saga, Konráðs saga keisarasonar, Mágus saga jarls, Melkólfs saga ok Solomons konungs, Mírmans saga, Nítíða saga, Nikulás saga leikara, Reinalds saga* (*Reinalds rímur og Rósu*), *Rémundar saga keisarasonar, Samsons saga fagra, Saulus saga ok Nikanors, Sigrgarðs saga frækna, Sigrgarðs saga ok Valbrands, Sigurðar saga fóts, Sigurðar saga turnara, Sigurðar saga þögla, Tristrams saga ok Ísoddar, Valdimars saga, Viktors saga ok Blávus, Vilhjálms saga sjóðs, Vilmundar saga viðutan,* and *Þjalar-Jóns saga*

Original Post-Medieval Icelandic: *Ambales saga, Fimmbræðra saga, Jasonar saga bjarta, Sagan af Bernótus Borneyjarkappa, Sagan af Hinriki heilráða, Sagan af Ketlerus keisaraefni, Sagan af Mána fróða, Sagan af Marroni sterka, Sagan af Natoni persíska, Sagan af Reimari keisara og Fal hinum sterka, Sagan af Rígabal og Alkanusi, Sarpidons saga sterka, Úlfhams saga,* and *Úlfs saga Uggasonar*

APPENDIX B

ICELANDIC LITERARY REFERENCES TO CATS

SAGAS

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Cats	Full Quotes English	Full Quotes Icelandic
Eiríks saga rauða/Eirik the Red's Saga	Unknown	AD 1220-1280	Ch. 4	*Skáholtsbók/ Sögubók* (AM 557 4to) (AD 1420-1450); Hauksbók (AM 544 4to) (AD 1290-1360)	Part of the Volva's magical attire	"When she arrived one evening, along with the man who had been sent to fetch her, she was wearing a black mantle with a strap, which was adorned with precious stones right down to the hem. About her neck she wore a string of glass beads and on her head a hood of black lambskin lined with white catskin. She bore a staff with a knob at the top, adorned with brass set with stones on top. About her waist she had a linked charm belt with a large purse. In it she kept charms which she needed for her predictions. She wore calfskin boots lined with fur, with long sturdy laces and large pewter knobs on the ends. On her hands she wore gloves of catskin, white and lined with fur." Kunz 2001: 658	"En er hún kom um kveldið og sá maður er í móti henni var sendur þá var hún svo búin að hún hafði yfir sér tuglamöttul blán og var settur steinum allt í skaut ofan. Hún hafði á hálsi sér glertölur. Hún hafði á höfði lambskinnskofra svartan og við innan kattarskinn hvítt. Staf hafði hún í hendi og var á hnappur. Hann var búinn messingu og settur steinum ofan um hnappinn. Hún hafði um sig hnjóskulinda og var þar á skjóðupungur mikill. Varðveitti hún þar í töfur þau er hún þurfti til fróðleiks að hafa. Hún hafði kálfskinnsskó loðna á fótum og í þvengi langa og sterklega, látúnshnappar miklir á endunum. Hún hafði á höndum sér kattskinnsglófa og voru hvítir innan og loðnir. " Sveinsson et al. 1935
Orms þáttur Stórólfssonar/ The Short Saga of Orm Stórólfsson	Unknown	13th-14th cen.	Ch. 6, Ormr ok Ásbjörn unnu Gautland; Ch. 7 Dráp Ásbjarnar	*Flateyjarbók inniheldur konungasögur og þætti auk nokkurra kvæða (GKS 1005 fol.)* (AD 1387-1394)	giantess mother was a black cat monster	"There Ásbjörn said that two islands lay north of the land and both were called Sauðey. A giant called Brúsi ruled over the outer island. He was a great troll and a cannibal. And people thought that he could never be conquered by human men, no matter how many. But his mother was even worse, for she was a coal-black cat and was so large that she took the largest bulls as sacrifices…the men realized a strange cat had entered their tent door. She was coal-black of color and terrible, because fire spewed from her nostrils and mouth and her eyes were terrible. The cat ran at the men and caught them, and it is said she swallowed some, but some she shredded to death with her claws and teeth. 20 men she killed in just a few minutes, but three escaped back to their ship and immediately left the country." My translation.	"Þar spurði Ásbjörn, at eyar tvær lágu norðr fyrir landi, ok hét hvort veggi Sauðey, ok réði fyrir inni ytri eyunni jötun, sá er Brúsi héti, hann var mikit tröll ok mannæta, ok ætluðu menn at hann mundi aldri af mennskum mönnum unninn verða, hversu margir væri, en móðir hans var þó verri viðreignar, en þat var kolsvört ketta, ok svá mikil sem þau blótnaut at stærst verða; ...verða þeir við þat varir, at ketta ógrlig var komin í tjaldsdyrnar, hon var kolsvört at lit ok heldr grimmlig, þvíat eldr þótti brenna or nösum hennar ok muni, eigi var hon ok vel eyg; ...Ketta hleypr þá innar at þeim, ok grípir hvern at öðrum, ok sva er sagt at suma gleypti hon, en suma rifl hon til dauðs með klóm ok tönnum, 20 menn drap hon þar á lítilli stundu, en 3 kvomust út ok undan ok á skip, ok héldu þegar undan landi;" *Fornmannasogur III* 1827: 214-216

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Cats	Full Quotes English	Full Quotes Icelandic
Vatnsdæla Saga/ The Saga of the People of Vatnsdal	Unknown	AD 1270-1320	Ch. 28	*Landnámabók — Vatnsdæla saga — Flóamanna saga — Eyrbyggja saga (AM 445 b 4to) (AD 1390-1425)*	Black cats as the pets of an evil wizard	"It is now time to tell of the man who was mentioned earlier and was called Thorolf Sledgehammer. He developed into an extremely untry individual. He was a thief and also much inclined towards other troublemaking. It seemed to folk that that his settling in the area was a very bad thing and that no sort of evil from him would come as any surprise. Though he was without followers, he as the owner of creatures on whom he relied for protection- these were twenty cats; they were absolutely huge, all of the black and much under the influence of witchcraft...'but it is not easy to deal with this man of Hel and his cats, and I'll spare all my men that.' …He went inside when he saw the troop of men arriving on horseback and said, 'Now there are guests to receive, and I intend to have my cats take care of this, and I will put them all outside in the doorway, and the men will be slow to gain entry with them defending the entrance.' He then fortified them greatly by magic spells and after this they were simply ferocious in their caterwauling and glaring...He said that he knew their visit meant only one thing, and that was not at all friendly. Then at once the cats began to howl and behave monstrously...The place where Thorolf lived has been called Sleggjustadir ever since, and cats have always been sighted there, and the place has often ill-fated since then." Wawn 2001:231-232	“Nú skal segja frá þeim manni er hét Þórólfur sleggja. Hann gerðist hinn mesti óspektarmaður. Bæði var hann þjófur og þó um annað stórilla fallinn. Þótti mönnum með stórmeinum hans byggð og einkis ills örvænt fyrir honum. Og þótt hann hefði eigi fjölmenni hjá sér þá átti hann þá hluti er hann vænti trausts að. Það voru tuttugu kettir. Þeir voru ákaflega stórir og allir svartir og mjög trylltir. Fóru menn nú til Þorsteins og sögðu honum sín vandræði og létu til hans koma um alla héraðsstjórn, sögðu Þórólf frá mörgum stolið hafa og gert svo mart ómannlegt annað. Þorsteinn kvað þá satt segja 'en eigi er allhægt við heljarmanninn að eiga og við köttu hans og þar til spara eg alla mína menn.' ...Hann gekk inn er hann sá mannareiðina og mælti: 'Nú er við gestum að taka og ætla eg þar til köttu mína og mun eg setja þá alla í dyr út og mun seint ráðast inngangan ef þeir verja dyrnar.' Síðan magnaði hann þá mjög og voru þeir þá stórum illilegir með emjun og augnaskotum...Hann kvaðst ætla að það eitt mundi erindi þeirra að eigi væri vingjarnlegt. Þá tóku kettirnir þegar að amra og illa láta... Þar heita síðan Sleggjustaðir er Þórólfur hafði búið og sáust jafnan kettir og illt þótti þar oftlega síðan. Sjá bær er ofan frá Helgavatni." Sveinsson 1939.
Laxadæla Saga/ The Saga of the People of Laxardal	Unknown	AD 1250-1270	Name of a major character	*Möðruvallabók (AM132 fol.) (AD 1330-1370)*	Þórðr the Cat is a main character; it is unknown where the name comes from	N/A	N/A

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Cats	Full Quotes English	Full Quotes Icelandic
Laxadæla Saga, Stúfs þáttur/ The Saga of the People of Laxadal, Epilogue	Unknown	AD 1250-1270	Epilogue	*Skáholtsbók/ Sögubók (AM 557 4to) (AD 1420-1450)*	Sexual symbolism: "Used to designate male animals, hvatr (roused, sharp, eagor, vigorous) evokes the image of an erect penis, and blauðr suggests female suppleness." Jochens 1995:76.	“He replied: ‘I am called Stúfr.’ The king asked: ‘What a strange name. Whose son are you?’ Stúfr answered: ‘Kattarson am I.’ The king asked: ‘What kind of cat was your father? Hard or soft? Then Stufr clapped his hands, laughed, and said nothing. The king asked: ‘Why are you laughing, Icelander?’ Stufr replied: ‘Take a guess, sir.' ‘So shall it be,’ said the King. ‘Do you think I am asking an ignorant question by asking what kind of cat your father was, hard or soft, because a soft cat could not be a father.’" My translation.	"Hann svarar: 'Stúfr heiti ek.' Konungr mælti: 'Kynligt nafn, eða hvers son ertu?' Stúfr svarar: 'Kattarson em ek.' Konungr spyrr: 'Hvárr var sá köttrinn, er faðir þinn var, inn hvati eða inn blauði?' Þá skelldi Stúfr saman höndunum ok hló ok svaraði engu. Konungr spyrr: 'At hverju hlær þú nú, Íslendingr?' Stúfr svarar: 'Getið þér til, herra.' 'Svá skal vera,' segir konungr. 'Þér myndi þykkja ek spyrja ófróðliga, er ek spurða, hvárr sá væri köttrinn, er faðir þinn var, inn hvati eða inn blauði, því at sá mátti eigi faðir vera, er blauðr var.'" Sveinsson 1934.
Orkneyinga Saga/ The Saga of the People of the Orkneys	Unknown	13th. Cen.	Ch. 15 Battle of Raudabjorg	*Flateyjarbók inniheldur konungasögur og þætti auk nokkurra kvæða (GKS 1005 fol.) (AD 1387-1394);* And *Orkneyinga Saga (AM 325 I 4to) (AD 1275-1324)*	"Cat” is used as an emasculating insult	"...and I hardly think you will allow yourself to lie crouching aside like a cat among stones while I am fighting for behoof of us both. '" Hjaltalin & Goudie 1873: 34 (GKS 1005 fol.)	"Mantu ok ægi vilea vita þat a þig, at liggja hea sem kottr i hreyse, þar er ek beriumzst til frelsis hvorumtveggjum;" Nordal 1913-16: 70 (AM 325 I 4to)
Heiðarvígasaga / The Saga of the Heath Slayings	Unknown	AD 1350-1399	Ch. 12	*Heiðarvíga saga (Lbs fragm 1) (1350-1399AD); badly preserved and parts missing; Jon Olafsson summary (AM 450 b 4to) (1730)*	"Kausi," or “pussy,” is used as an emasculating insult: A father calls his son a "pussy" for not killing another boy.	"Snorri said to his son Þórðr the Pussy-Cat, ‘Does the cat see the mouse? Young shall strike at young.’" My translation.	"Snorri mælti við son sinn Þórð kausa: "Sér kötturinn músina? Ungur skal að ungum vega." Sveinbjorn Thordarson. Nordal and Jónsson 1938.

EDDAS

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Cats	Full Quotes English	Full Quotes Icelandic
Gylfaginning/ The Tricking of Gylfi	*Snorri Sturlusson*	AD 1220	Ch. 24-25	*Codex Regius/ Konungsbók Snorra-Eddu (GKS 2367 4to) (AD 1300-1350)*	description of Freyja & her cats	"Sessrumnir, her hall, it is large and beautiful. And when she travels she drive two cats and sits in a chariot. She is the most approachable one for people to pray to, and from her name is derived the honorific title whereby noble ladies are called frovur [noble ladies]. She was very fond of love songs. It is good to pray to her concerning love affairs." Faulkes 1988:24	"Salr hennar Sessrúmnir, hann er mikill ok fagr. En er hon ferr, þá ekr hon köttum tveim ok sitr í reið. Hon er nákvæmust mönnum til á at heita, ok af hennar nafni er flat tignarnafn er ríkiskonur eru kallaðar “fróvur”. Henni líkaði vel mansöngr. Á hana er gott at heita til ásta.’ " Faulkes 2005: 25
Gylfaginning/ The Tricking of Gylfi	*Snorri Sturlusson*	AD 1220	Ch. 34	*Codex Regius/ Konungsbók Snorra-Eddu (GKS 2367 4to) (AD 1300-1350)*	To bind the monster child of Loki, Fenris Wolf, the gods had a magical fetter mad.. This fetter was comprised of six things, one of which was the noise of a cat walking	"Then All-father sent someone called Skirnir, Freyr's messenger, down into the world of black-elves to some dwarfs and had a fetter called Gleipnir made. It was made of six ingredients: the sound of a cat's footfall and the woman's beard, the mountain's roots and the bear's sinews and the fish's breath and bird's spittle. And even if you did not know this information before, you can now discover true proofs that you are not being deceived in the following: you must have seen that a woman has no beard and there is no noise from a cat's running and there are no roots under a mountain, and I declare now by my faith that everything I have told you is just as true even if there are some things you cannot test." Faulkes 1988: 28	Alföðr þann er Skírnir er nefndr, sendimaðr Freys, ofan í Svart- álfaheim til dverga nokkurra ok lét gera fötur þann er Gleipnir heitir. Hann var gjör af sex hlutum: af dyn kattarins ok af skeggi konunnar ok af rótum bjargsins ok af sinum bjarnarins ok af anda fisksins ok af fogls hráka. Ok þóttu vitir eigi áðr flessi tíðindi, þá máttu nú finna skjótt hér sönn dœmi at eigi er logit at þér: sét muntþu hafa at konan hefir ekki skegg ok engi dynr verðr af hlaupi kattarins ok eigi eru rœtr undir bjarginu, ok flat veit trúa mín at jafnsatt er þat allt er ek hefi sagt þér þótt þeir sé sumir hlutir er þú mátt eigi reyna.’ Faulkes 2005: 28
Gylfaginning/ The Tricking of Gylfi	*Snorri Sturlusson*	AD 1220	Ch. 49	*Codex Regius/ Konungsbók Snorra-Eddu (GKS 2367 4to) (AD 1300-1350)*	as the steeds of the fertility goddess, Freyja	"This burning was attended by beings of many different kinds: firstly to tell Oðinn, that with him went Frigg and valkyries and his ravens, while Freyr drove in a chariot with a boar called Gullinbursti or Slidrugtanni. But Heimdall rode a horse called Gulltopp, and Freyja her cats." Faulkes 1988: 49-50	"þá var borit út á skipit lík Baldrs, ok er þat sá kona hans Nanna Nepsdóttir þá sprakk hon af harmi ok dó. Var hon borin á bálit ok slegit í eldi... En at þessi brennu sótti margs konar þjóð: fyrst at segja frá Óðni, at með honum fór Frigg ok valkyrjur ok hrafnar hans, en Freyr ók í kerru með gelti þeim er Gullinbursti heitir eða Slíðrugtanni. En Heimdallr reið hesti þeim er Gulltoppr heitir, en Freyja köttum sínum." Faulkes 2005: 46-47

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Cats	Full Quotes English	Full Quotes Icelandic
Gylfaginning/ The Tricking of Gylfi	*Snorri Sturlusson*	AD 1220	Ch. 46-47	*Codex Regius/ Konungsbók Snorra-Eddu (GKS 2367 4to) (AD 1300-1350)*	The World Serpent, Jormugund, is disguised as a large gray cat to trick Thor	"Then spoke Utgarda-Loki: 'What the young lads here do, though it may not seem of great significance, is lift up my cat off the ground. But I would not know how to mention such a thing to Thor of the Aesir if I had not previously seen that you are a much less impressive person than I thought.' Next a kind of grey cat ran out on to the hall floor, and it was rather big. Thor went up and took hold with his hand down under the middle of its belly and lifted it up. But the cat arched its back as much as Thor stretched up his hand. And when Thor reached as high up as the furthest he could, then the cat raised just one paw and Thor was not able to perform this feat. Then spoke Utgarda-Loki: 'This game went just as I expected: the cat is rather big, but Thor is short and small in comparison with the big fellows here with us.'...'It did not seem to me any less impressive either when you lifted up the cat, and to tell you the truth everyone that was watching was terrified when you raised one of its feet from the ground. For that cat was not what it appeared to you: it was the Midgard serpent which lies encircling all lands, and its length was hardly enough for both its head and its tail to touch the ground. And so far did you reach up that you were not far from the sky.'" Faulkes 1988: 43-45	‘þá mælir Útgarðaloki: “þat gera hér ungir sveinar, er lítit mark mun at þykkja, at hefja upp af jörðu kött minn. En eigi mundak kunna at mæla þvílíkt við Ásaþór ef ek hefða eigi sét fyrr at þú ert myklu minni fyrir þér en ek hugða.” ‘því næst hljóp fram köttr einn grár á hallar gólfit ok heldr mikill. En þórr gekk til ok tók hendi sinni niðr undir miðjan kviðinn ok lypti upp. En köttrinn beygði kenginn svá sem þórr rétti upp höndina. En er þórr seildisk svá langt upp sem hann mátti lengst þá létti köttrinn einum fœti ok fær þórr eigi framit þenna leik. þá mælir Útgarðaloki: ‘Svá fór þessi leikr sem mik varði: köttrinn er heldr mikill, en þórr er lágr ok lítill hjá stórmenni því sem hér er með oss.' ...'Eigi þótti mér hitt minna vera vert er þú lyptir upp kettinum, ok þér satt at segja þá hræddusk allir fleir er sá er þú lyptir af jörðu einum fœtinum. En sá köttr var eigi sem þér sýndisk: þat var Miðgarðsormr er liggr um lönd öll, ok vansk honum varliga lengðin til at jörðina tœki sporðr ok höfuð. Ok svá langt seildisk þú upp at skamt var þá til himins." Faulkes 2005: 42-43
Þulur Skaldskaparmal /Rhymes in The Language of Poetry	*Snorri Sturlusson*	AD 1220	Þulur IV b 5 (421)	*Codex Regius/ Konungsbók Snorra-Eddu (GKS 2367 4to) (AD 1300-1350)*	kenning for giant	Cat, etc.	"Köttr Ösgrúi/ ok Alfarinn/ Vindsvalr Víparr/ ok Vafþrúðnir/ Eldr ok Aurgelmir/ Ægir Rangbeinn/ Vindr Viðblindi/ Vingnir Leifi." Faulkes 2005: 111

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Cats	Full Quotes English	Full Quotes Icelandic
Skaldskaparmal /The Language of Poetry	*Snorri Sturlusson*	AD 1220	XX	*Codex Regius/ Konungsbók Snorra-Eddu (GKS 2367 4to) (AD 1300-1350)*	reference to Freyja	"How shall Freyja be referred to? By calling her daughter of Niord, sister of Freyr, wife of Od, mother of Hnoss, possessor of the fallen slain and of Sessrumnir and tom-cats, of Brisingamen, Van-deity, Van-lady, fair-tear deity. All Asyniur can be referred to by naming the name of another one and referring to them by their posession or deeds or descent." Faulkes 1988: 86	"Hvernig skal Freyju kenna? Svá at kalla dóttur Njarðar, systur Freys, konu Óðs, móður Hnossar, eigandi valfalls ok Sessrúmnis ok fressa, Brísingamens, Vana goð, Vana dís, it grátfagra goð. Svá má kenna allar Ásynjur at nefna annarrar nafni ok kenna við eign eða verk sín eða ættir. " Faulkes 2007: 30
Skaldskaparmal /The Language of Poetry	*Snorri Sturlusson*	AD 1220	Ch. 58	*Codex Regius/ Konungsbók Snorra-Eddu (GKS 2367 4to) (AD 1300-1350)*	"Gib-Cat" as a kenning for bear	"The bear is called Wide-Stepper, Cub, Winterling, Ourse, Gib-Cat, Tusker, Youngling, Roarer, Jölfudr, Wilful-Sharp, She-Bear, Horse-Chaser, Scratcher, Hungry One, Blómr, Bustler." Brodeur 1916: 211	"Björn: fetviðnir, húnn, vetrliði, bersi, fress, íugtanni, ifjungr, glúmr, jölfuðr, vilskarpr, bera, jórekr, riti, frekr, blómr, ysjungr." Faulkes 2007: 88
Helgakviða Hundingsbana/ The First Poem of Helgi Hundingsbane	*Poetic Edda/ various unknown*	AD 850 -1050	Verse 18	Codex Regius/ Eddukvæði — Sæmundar-Edda (GKS 2365 4to) (AD 1260-1280)	Insult for a man	“My father has promised his girl/ to Granmar’s fierce son;/ but, Helgi, I call Hodbrodd/ a king as bold as the kitten of a cat.” Larrington 2008:116	"Hefir minn faðir/ meyju sinni/ grimmum heitið/ Granmars syni,/ en eg hefi, Helgi,/ Höðbrodd kveðinn/ konung óneisan/ sem kattar son." Ólafur Briem 1976: 269

OTHERS

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Cats	Full Quotes English	Full Quotes Icelandic
Grágás / Laws of Early Iceland	Unknown	AD 1117 - 1118	Kristinna Laga Þáttr (Ch. 33 Um fösto tiðir)/ Christian Laws Section (Ch.16 On Times of Fasting)	*Konungsbók Grágásar (GKS 1157 fol.) (AD 1240-1260)*	Law against eating cats	"People must not eat horses, dogs, foxes, and cats; and no beasts with claws and not carrion birds. If a man eats these animals which are excluded, he is liable to a penalty of lesser outlawry." Dennis, Foote, & Perkins 1980: 49	"Ros eigu men eigi at eta oc hunda oc melracca oc kottu oc engi kló dýr oc engi hræ fugla. Ef maðr etr þau dýr er fra eru skilð oc varðar honum þat fiorbaugs Garð." Finsen 1852: 34-35
Grágás / Laws of Early Iceland	Unknown	AD 1117 - 1118	Um fullrettis orð (Ch. 246 Um fiárlag mana)/ Miscellaneous Articles (Ch. 246 On Standard Values)	*Konungsbók Grágásar (GKS 1157 fol.) (AD 1240-1260)*	cat skin/fur as currency	"Two skins of old tomcats are worth one ounce-unit, three from cats one summer old are worth one ounce-unit." Dennis, Foote, & Perkins 2000: 207	"Katbælgir af fressom gomlom ii fyrir eyre. Af sumrungom iii fyrir eyre." Finsen 1852: 192-193
Jólin koma: Kvæði handa börnum /Christmas is Coming: Verse for Children	*Jóhannes úr Kötlum*	AD 1932	N/A	N/A	Folklore; large black cat owned by a troll woman, both who eat children around Christmas	N/A	N/A
Galdra /Icelandic Folk Magic	Unknown	17th. Cen.	N/A	N/A	Cat-skin vellum for magic spells	*On display at the Holmavik Museum of Sorcery in Iceland are cat skins that were utilized in 17th century spells. One that is most prominent is the skin of a black tomcat used as a canvas for magic signs inscribed with virginal menstrual blood.	* "The cat skin vellum is connected to a magic to make oneself rich with the aid of a small sea creature." Magnus Rafnsson 2019 (pers. Comm.)

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Cats	Full Quotes English	Full Quotes Icelandic
The Rev. Eirikr of Vogsosar	Jón Árnason	AD 1850 - 1865	V.13, The Convict	*Íslenzkar Þjóðsögur og Aefintyri* (Lbs 533 4to) (AD 1850-1865)	A “sending” in the form of a cat is sent to attack the “white wizard,” Eirikur.	"The men from Sida realized now that Eirikur had made them a laughing-stock, and they wanted to get their revenge. They got a man from the Western Fjords to do it, and he sent Eirikur a Sending in the form of a cat. Eirikur was standing at his door when this cat came and tried to leap at his throat and kill him. But the man who had once opened Eirikur's magic book was standing beside him, and he helped Eirikur to kill the cat. It is said that Eirikur himself then sent a ghost against the man from the Western Fjords, which was the death of him." Jón Árnason 1975: 67	N/A
Galdrabók/ Book of Magic	Unknown	originals from 16th - 17th cen.	N/A	*Kreddur ýmsar og lækningar (JS 221 8vo) (AD 1762-1799)*	magical/ medicinal use of cat feces	"8. For Hair Growth: knead together cat faeces and mustard and leave it to grow brushed on a sparse head of hair." Foster 2015: 271	N/A
Galdrabók/ Book of Magic	Unknown	originals from 16th - 17th cen.	N/A	*Kreddur ýmsar og lækningar (JS 221 8vo) (AD 1762-1799)*	magical use of cat hair	"14. To discover a thief: Cut one of these signs on a bronze plate and have under it the hair of a black uncastrated tomcat and have it under your head on the three nights of the old moon until the thief appears to you in a dream." Flowers 1989: 97	N/A
Galdrabók/ Book of Magic	Unknown	originals from 16th - 17th cen.	N/A	*Kreddur ýmsar og lækningar (JS 221 8vo) (AD 1762-1799)*	magical use of cat hair	"15. To discover a thief: Draw blood from above the nail of your left finger and therewith draw this sign on paper. Have a cat hair behind it. Stick it under your cap and sleep with it by the old moon until you dream of him. Tried out." Flowers 1989: 97	N/A

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Cats	Full Quotes English	Full Quotes Icelandic
Galdrabók/ Book of Magic	Unknown	originals from 16th - 17th cen.	N/A	*Kreddur ýmsar og lækningar (JS 221 8vo) (AD 1762-1799)*	magical use of cat paws	"5. To bring forth deceptions of the eye and to know how to do them: Take eagle claws, sparrow claws, raven claws, falcon claw, dog paw, cat paw, mouse paw, and fox paw. Take the claws and paws of all these animals and boil them in water that [was drawn from a stream] flows to the east. Then take the substance and put it in an unused linen bag and drink the extract. Then hold the bag over your head and command what kind of deception of the eyes you have thought up for him." Flowers 1989: 103	N/A
Norwegian Folk Magic	Unknown	Folk tradition from Post-Reformati-on (Mitchell 2011:267)	N/A	N/A	Norwegian 'monster', called smørkatt ("butter cat"), would steal milk from neighbors' cows and bring it home to their owner; depicted as a ball of yarn. Heide 2006:165	"More support for the mind emissary as something spun is found in a small, magic creature that suckled milk from other people's cows and brought it home to its owner. In Norwegian it is usually called smørkatt ('butter cat'), in Swedish bjara and in Icelandic tilberi or snakkur. In Northern Sweden and Norway it looked like a ball of yarn, in Finland it was partly made of a spindle or spindles with yarn on them, and in Iceland it looked like a certain kind of bobbin used as a shuttle in the traditional warp-weighed loom [Wall 1977-78]. These shapes are all variations of the theme of 'concentrated yarn', and if the milk thief got hurt or killed, the same happened to its owner." Heide 2006: 165	N/A
Medieval Church Painting of a Cat	Unknown	AD 1475 - 1510	N/A	N/A	Medieval church painting of a cat with a witch being punished, cat possibly represents the devil	"The concept of punishment-presumably also of a witch-is displayed in the most graphic way in the grotesque mural from Marie Magdalene church…finally, a cat, perhaps representing the devil, looks on while preening itself and licking its own rear. At least one interpretation holds that we see here a witch who has had sexual relations with the devil and is now at the Final Judgement." Mitchell 2011: 184	N/A

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Cats	Full Quotes English	Full Quotes Icelandic
Swedish Folk Magic	Unknown	AD 1471	N/A	N/A	professional witch accused of making a love potion with a cat's head as an ingredient	"Operationally, the magic used by 'Crazy Katherine' (galna kadhrin) in Arboga in 1471 differs significantly from the earlier cases, even if the intent appears consistent: she will arrange things such that a man leaves his fiancé for another woman through a charm involving a cat's head." Mitchell 2011: 58	N/A
Swedish Folk Magic	Unknown	AD 1490	N/A	N/A	witch accused of making a love potion with a cat's head as an ingredient	"…here, a Margit halffstoop admits that years earlier she had taken from a particular man 'all the strength in his manhood etcetera' while he stood and urinated. Further, she says she learned this magic (then trolldomen), which also includes a cat's head, from another woman in Bjorklinge, a village north of Uppsala." Mitchell 2011: 59	N/A
Speculum lapidum (translated into Swedish from Latin)	Peder Månsson	Late Medieval	N/A	N/A	doriatides as a magical stone found in cat's heads	"…'doriatides'l is a stone found in the head of a cat, when the head is cut off and ants are allowed to eat the flesh and reveal the black stone. Significantly, 'it's virtue is to help accomplish all desire...' [Geete 1913-15: 470]." Mitchell 2011: 233	N/A

APPENDIX C

ICELANDIC LITERARY REFERENCES TO SPECIAL STONE

SAGAS

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Stones	Full Quotes English	Full Quotes Icelandic
Kormáks saga/The Saga of Cormac the Skald	Unknown	AD 1330-1370	Chapter 9 – Of Another Witch, And Two Magic Swords; Chapter 12 - Bersi's Bad Luck At The Thor's-Ness Thing; Chapter 13 - Steingerd Leaves Bersi	*Möðruvallabók (AM132 fol.) (AD 1330-1370)*	healing & lucky stones (lyfsteinn)	"Now, Bersi owned the sword they call Whitting; a sharp sword it was, with a life-stone to it; and that sword he had carried in many a fray." pg. 13 "Bersi's manner of swimming was to breast the waves and strike out with all his might. In so doing he showed a charm he wore round his neck. Steinar swam at him and tore off the lucky-stone with the bag it was in, and threw them both into the water, saying in verse: 'Long I've lived,/ And I've let the gods guide me;/ Brown hose I never wore/ To bring the luck beside me./ I've never knit/ All to keep me thriving/Round my neck a bag of worts,/ - And lo! I'm living!' Upon that they struck out to land. But this turn that Steinar played was Thord's trick to make Bersi lose his luck in the fight. And Thord went along the shore at low water and found the luck-stone, and hid it away." pg. 19 "A while later Thord came to his bedside and brought back the luck-stone; and with it he healed Bersi, and they took to their friendship again and held it unbroken ever after." Collingwood & Stefansson 1901: 13; 19; 21	"Bersi átti það sverð er Hvítingur hét, biturt sverð, og fylgdi lyfsteinn og hafði hann það sverð borið í mörgum mannhættum." pg. 13 "Bersi fer örðigur og leggst hart. Hann hafði lyfstein á hálsi. Steinar leggst að honum og slítur af honum steininn með punginum og kastar á sundið og kvað vísu: 'Lifði eg lengi./ Lét eg ráða goð./ Hafði eg aldrei/ hosu mosrauða./ Batt eg aldrei mér/ belg að hálsi/ urtafullan./ Þó eg enn lifi.' Eftir þetta leggjast þeir til lands. Það bragð er Steinar hafði við Bersa var af ráðum Þórðar að Bersa skyldi verr ganga hólmgangan. Þórður gekk hjá firðinum er fjaraði og fann lyfsteininn og hirti." pg. 19 "Eftir þetta fór Þórður að rúminu til Bersa og færði honum lyfsteininn. Síðan græddi Þórður Bersa og tókst þá þeirra vinátta og héldu vel síðan." Sveinsson 1939.
Þorsteins saga Víkingssonar/ The Saga of Þorstein Víkingr's Son	Unknown	AD 1475-1499	Ch. 16	*Eggertsbók (AM 556 b 4to) (1475-1499AD)*	lucky/ protection/ victory stone	"One day Thorer asked the daughter of the bonde how it came to pass that Grim could not be vanquished. She said there was in the fore part of his helmet a stone, which made him invincible as long as it was not taken away from him." Anderson 1877: 45	"Þat var einn dag at Þórir syrr bóndadóttur, hvat valda mundi at Grímr yrði ekki sigraðr; hún segir, at steinn sá stæði framan í hjálminum, at því ylli, at hann má eigi sigrast á meðan steininum verðr eigi af honum náð." Rafn 1829b: 430

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Stones	Full Quotes English	Full Quotes Icelandic
Þorsteinn þáttur bæjarmagns/ Þorsteinn Mansion-Might	Unknown	Late 13th cen.	Chapter 3: Frá Þorsteini ok dvergi/ The Dwarf	*AM 589 e 4to (AD 1450-1500)*	magic multi-colored marble; white part brings a hail-storm; the stone in general will hit anything you aim it at & retrieve the item you hit	"Then the dwarf gave Thorstein a black flint. 'If you hide this in the palm of your hand no one can see you. There aren't any other useful things I can give you, except for a bit of marble I want you to have just for your amusement.' He took this bit of marble from his purse and with it a steel point. The marble was triangular in shape, white in the centre and one of the sides was red, with a yellow ring around it. The dwarf said, 'If you prick the white part with the point, a hail-storm will come, so fierce no one will be able to face it. When you want to thaw out the snow, you have only to prick the yellow part and the sun will shine and melt it all away. But when you prick the red part, fire and flames and a shower of sparks will come flying out that no one will be able to bear. Besides that, you can hit anything you aim at with the point and the marble, and they'll both come back into your hands when you call for them. This is all the reward I can give you for now.' Thorstein thanked him for the gifts and went back to his men, feeling that this trip had not been altogether wasted. Then they got a favourable wind and sailed on to the east, but soon they ran into fogs and lost their bearings. For a whole fortnight they had no idea where they were going." Pálsson & Edwards 1985	"Síðan tók hann einn stein svartan ok gaf Þorsteini, - "ok ef þú felr hann í lófa þér, sér þik engi. Eigi hefi ek fleira, þat þér megi gagn at vera. Hall einn vil ek gefa þér til skemmtunar." Tók hann þá hallinn ór pungi sínum. Fylgdi honum einn stálbroddr. Hallrinn var þríhyrndr. Hann var hvítr í miðju, en rauðr öðrum megin, en gul rönd utan um. Dvergrinn mælti: "Ef þú pjakkar broddinum á hallinn, þar sem hann er hvítr, þá kemr haglhríð svá mikil, at engi þorir móti at sjá. En ef þú vilt þíða þann snjó, þá skaltu pjakka þar, sem gulr er hallrinn, ok kemr þá sólskin, svá at allt bræðir. En ef þú pjakkar þar í, sem rautt er, þá kemr þar ór eldr ok eimyrja með gneistaflaug, svá at engi má móti at sjá. Þú mátt ok hæfa þat, sem þú vilt, með broddinum ok hallinum, ok hann kemr sjálfr aptr í hönd þér, þegar þú kallar. Get ek nú ekki launat þér fleira at sinni." Þorsteinn þakkar honum gjafirnar. Fór hann nú til sinna manna, ok var honum þessi ferð betr farin en ófarin. Þessu næst gefr þeim byr ok sigla í Austrveginn. Koma nú á fyrir þeim myrkr ok hafvillur, ok vita þeir ekki, hvar þeir fara, ok var þat hálfan mánuð, at þessi villa helzt. " Fornmanna sögur 3 1827: 180-181
Laxadæla Saga/The Saga of the People of Laxardal	Unknown	AD 1250-1270	Ch. 57 Af Þorgilsi/ Of Thorgil	*Möðruvallabók (AM132 fol.) (1330-1370AD)*	Healing stone	"'Any wound it [a sword] inflicts will not heal unless rubbed with the healing stone which accompanies it.'" Kunz 2001: 384	" Ef maður fær sár af sverðinu þá má það sár eigi græða nema lyfsteinn sá sé riðinn við er þar fylgir." Sveinsson 1934.

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Stones	Full Quotes English	Full Quotes Icelandic
Hálfdanar Saga Eysteinsson/ The Saga of Halfdan Eysteinsson	Unknown	14th cen.	*16. Hriflingr sagði Hálfdani til vegar /Hrifling Tells Halfdan the Way; 18. Dráp Sels jötuns /The Death of the Giant Sel; 20. Sigr Skúla ok Hálfdanar /Skuli and Halfdan are Victorious*	*Several; oldest copy is Fornaldar- og riddarasögur (AM 343 a 4to) (AD 1450-1475)*	protective magic stone necklace	"After that she hung a necklace strung with precious stones around his neck and told him never to take it off. He gave her a kiss, and then her husband saw him on his way and told him which road to take…But then Halfdan caught Sel with a heel-throw that put him flat on his back. Another of Sel's teeth struck the necklace, breaking one of the precious stones, and then Halfdan couldn't budge, but now Hrifling's dog joined in and clawed out both of Sel's eyes. At that, Halfdan broke free, cut off Sel's head, and dumped him in the nearby river…Then he attacked Halfdan, but his sword struck the necklace and broke. Halfdan was wounded on the neck at the spot where the stone had been damaged and had the necklace not been there to protect him, his head would have been off." Pálsson & Edwards 1985: 188-192	"Hún tók eitt steinasörvi ok batt um háls honum ok bað hann þess, at þat skyldi eigi ór stað hrærast. Síðan kyssti hann kerlingu. Karl gekk á veg með honum ok sagði honum, hvert hann skyldi stefna....Hálfdan lék þá Sel hælkrók, ok fell hann á bak aptr. Tönn hans kom á steinaservit, ok brotnaði einn steinninn. Hálfdan gat nú hvergi hrært sik. Rakkinn karlsnautr hljóp þá framan í nasirnar á Sel ok klóraði ór honum bæði augun. Þá varð Hálfdan lauss, ok hjó hann höfuð af Sel ok kastar honum svá út á móðuna, er þar fell nær....Flóki hjó til Hálfdanar, ok kom í steinaservit, ok brotnaði skálmin, en Hálfdan fekk sár á hálsinum, þar sem steinninn var ór brotnaðr, en misst hefði hann höfuðit, ef eigi hefði steinaservit borgit honum. Hálfdan greip til Flóka ok rak hann niðr fall mikit." Rafn 1830: 543-549
Heiðarvígasaga /The Saga of the Heath Slayings	Unknown	AD 1350 - 1399	Ch. 23 *How Foster-Father and Foster-Mother Array Bardi*	*Heiðarvíga saga (Lbs fragm 1) (AD 1350-1399); badly preserved and parts missing*	protective magic stone necklace	"Bardi was a big man and stark of pith, and thick was the neck of him; she spans his neck with her hands, and taketh from her sark a big pair of beads [steinasörvi means stone necklace] which was hers, and winds it about his neck, and draggeth his shirt up over it. He had a whittle at his neck in a chain, and that she let abide. Then she bade him farewell; and he rideth away now after his fellows; but she called after him, "Let it now abide so arrayed, as I have arrayed it; and me seemeth that then things will go well." Morris & Eiríkr Magnússon 1892: 8	"Barði var mikill maður og sterkur að afli. Digur var háls hans og spennir hún höndum sínum um háls honum og tekur úr serk sér steinasörvi mikið er hún átti og dregur á háls honum og dregur yfir skyrtuna. Hann hafði tygilhníf á hálsinum og lét hún hann þar vera og bað hann vel fara. Hann ríður nú á braut eftir förunautum sínum. Hún kallar eftir honum: "Lát vera nú svo búið sem eg hefi um búið og vættir mig að þá mun hlýða." Nordal and Jónsson 1938.
Þórðar saga hreðu/The Story of Þórðr Hreða	*Bjarnar Þorleifsson ?*	AD 1300-1525	Ch. 6 of *Brot úr Þórðarsögu úr Vatnshyrnu*	*Sögubók (AM 152 1-2 fol.) (AD 1300-1525)*	healing stone	"But if a man be hurt with the sword, that hurt may not be healed, save for the life-stone that be rubbed thereon. " My translation.	"Ef maður fær sár af sverðinu þá má það sár eigi græða nema lyfsteinn sá sé riðinn er það fylgur." Halldórsson 1959.

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Stones	Full Quotes English	Full Quotes Icelandic
Göngu-Hrólfs saga/ Hiking-Hrólfs saga	*Bjarnar Þorleifsson ?*	AD 1300-1525	*Ch. 3 Fall Hreggviðar og skildagar Ingigerðar*	*Sögubók (AM 152 1-2 fol.) (AD 1300-1525)*	protection stones	"Hreggvidur king sees this and is unhappy about the fall of Sigurdur and drives the horse forward and rushes violently and strikes on either side both men and horses, knocking them back. Sword so sharp, it was like cutting through water. The handle was golden, (where it had been repaired), and the underside of the hilt were those life stones, that protect against poison and burns, if inscribed. He rides so angrily to the banner of king Eirek, that both his hands are bloodied up to the shoulder." Translation by Kolbrun Kolbeinsdottir 7/24/19	"Þetta sér Hreggviðr konungr ok eirir illa falli Sigurðar ok keyrir hestinn sporum ok ríðr hart fram ok höggr ok leggr til beggja handa bæði menn ok hesta, svá at allt hrökkr undan. Beit sverðit sem í vatn brygði. Umgerðin var öll gulli búin, þar er bæta þótti, ok í aftra hjalti sverðsins váru leystir lífsteinar þeir, er eitr ok sviða drógu ór sárum, ef í váru skafnir. Ríðr hann svá styggr fram at merki Eireks konungs, at hann hefir báðar hendr blóðgar til axla." Rafn 1830: 244
Eiríks saga rauða/ Eirik the Red's Saga	Unknown	AD 1220-1280	Ch. 4	*Skáholtsbók/ Sögubók (AM 557 4to) (AD 1420-1450)*	Part of the Volva's magical attire	"When she arrived one evening, along with the man who had been sent to fetch her, she was wearing a black mantle with a strap, which was adorned with precious stones right down to the hem. About her neck she wore a string of glass beads and on her head a hood of black lambskin lined with white catskin. She bore a staff with a knob at the top, adorned with brass set with stones on top. About her waist she had a linked charm belt with a large purse. In it she kept charms which she needed for her predictions. She wore calfskin boots lined with fur, with long sturdy laces and large pewter knobs on the ends. On her hands she wore gloves of catskin, white and lined with fur." Kunz 2001: 658	"En er hún kom um kveldið og sá maður er í móti henni var sendur þá var hún svo búin að hún hafði yfir sér tuglamöttul blán og var settur steinum allt í skaut ofan. Hún hafði á hálsi sér glertölur. Hún hafði á höfði lambskinnskofra svartan og við innan kattarskinn hvítt. Staf hafði hún í hendi og var á hnappur. Hann var búinn messingu og settur steinum ofan um hnappinn. Hún hafði um sig hnjóskulinda og var þar á skjóðupungur mikill. Varðveitti hún þar í töfur þau er hún þurfti til fróðleiks að hafa. Hún hafði kálfskinnsskó loðna á fótum og í þvengi langa og sterklega, látúnshnappar miklir á endunum. Hún hafði á höndum sér kattskinnsglófa og voru hvítir innan og loðnir. " Sveinsson et al. 1935.
Guðmundar saga biskups/ The Life of Gudmund the Good: Bishop of Holar	*Lambkarr?*	AD 1375-1399	Ch. 66	*AM 399 4to (AD 1330-1350)*	sunstone	"Two treasures at Eyr, which Bishop Gudmund had given to Hrafn, are mentioned; these were a sun-stone and a woman's dress of dark-blue material, with embroidered borders…but they took the sun-stone with them to the sea. Then it looked like any other pebble to them, and they threw it down, and after they had gone away, this sun-stone was found." Turville-Petre and Olszewka 1942: 72	"Þeir gripper vóro þeir þar, er Guðmundr biskup hafðe gefit Rafne, er frá er sagt, þat var sólarsteinn ok kvennkyrtill með hlöðum blábrúnaðr. En er their etloðo hann á brott at taka, þá sýndist þeim sem þat vere svartr fats tötter, ok köstoðo eptir, en sólarsteinninn hofðo þeir til sjofar; þá sýndist þeim [hann] sem annarr fjörosteinn, ok köstoðo niðr, ok er þeir vóro á brotto farnir, þá fannst sólarsteinninn." Biskupasögur 1858: 506

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Stones	Full Quotes English	Full Quotes Icelandic
Hervarar saga ok Heiðreks/ Saga of King Heidrek the Wise	*Haukr Erlendsson*	AD 1290-1360	Ch. 1	*Hauksbók (AM 544 4to) (AD 1290-1360)*	Glaesisvellir, shining fields; a district of Jotunheimar land of giants	" There was a king in Jötunheimar called Guthmund. He was a mighty man among the heathen. He dwelt at a place called Grund in the region of Glasisvellir**.** He was wise and mighty. He and his men lived for many generations, and so heathen men believed that the fields of immortality lay in his realm; and whoever went there cast off sickness or old age and became immortal." Kershaw 1921:79	"Sva finnst skrifat í fornum bókum, at Álfheimar voru kallaðir norðr í Gandvík, en Ymisland fyri sunnan í millil Hálogalands. En áðr enn Tyrkjar ok Asíamenn komu í Norðrlönd, bygðu Norðrálfuna risar ok hálfrisaræ gjörðist þá mikit sambland þjóðanna, risar fengu sér kvenna or Mannheimum, en sumir giptu þángat dætr sínar. Goðmundr hét konúngr í Jötunheimum, bær hans hét Grund, en héraðit Glæsisvellir; hann var ríkr maðr, ok var sva gamall ok allir hans menn, at þeir lifðu marga mannsaldra, ok því trúðu heiðnir menn, at í hans ríki mundi Ódáinsakr vera, sá staðr er hvörjum manni sva heilnæmr, er þar kemr, at af honum hverfr sótt ok elli, ok má engi deyja." Rafn 1829a: 411
Norna-Gests þáttr/ Story of Norna-Gest	Unknown; Jóns Þórðarsonar (scribe)	AD 1387 - 1394	Ch. 1	*Flateyjarbók inniheldur konungasögur og þætti auk nokkurra kvæða (GKS 1005 fol.) (AD 1387-1394)*	Glaesisvellir, shining fields; a district of Jotunheimar land of giants	"In this year also there came to him two men called Grim who were sent by Guthmund from Glasisvellir. They brought to the King as a present from Guthmund two horns which were also called 'Grim.'" Kershaw 1921:11	"Svá segja menn, at Gestr þessi kæmi á þriðja ári ríkis Ólafs konungs til hans. Á því ári kómu ok til hans þeir men, er Grímar hétu ok váru sendir af Guðmundi af Glasisvöllum. Þeir færðu konugi horn tvö, er Guðmundr gaf honum." Rafn 1829a: 315
Helga þáttr Þórissonar/ Story of Helgi Þórisson	Unknown; Jóns Þórðarsonar (scribe)	13th-14th cen.	Ch. 1	*Flateyjarbók inniheldur konungasögur og þætti auk nokkurra kvæða (GKS 1005 fol.) (AD 1387-1394)*	Glaesisvellir, shining fields; a district of Jotunheimar land of giants	"She answered: I am called Ingibjörg, daughter of Guðmundr of Glæsisvellir." My translation.	"Hún svarar: "Ek heiti Ingibjörg, dóttir Guðmundar af Glæsisvöllum." Guðni Jónsson 1950a:347

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Stones	Full Quotes English	Full Quotes Icelandic
Bósa saga ok Herrauds/ Story of Bósi and Herraud	Unknown	15th-17th cen.	Ch. 7, Ch. 8, Ch. 10, Ch. 11, Ch. 14, Ch. 16	*Arnarbælisbók (*AM 586 4to, AD 1450-1499), AM 343 a 4to (AD 1450-1475), AM 510 (AD 1540-1560, and AM 577 4to (AD 1450-1499)	Glaesisvellir, shining fields; a district of Jotunheimar land of giants	Ch. 7: "They were mighty warriors and retainers of Gudmundr king of Glaesisvellir and defenders of his land. "	Ch. 7: "Þeir váru kappar miklir ok hirðmenn Goðmundar konungs á Glæsivöllum ok landvarnarmenn hans." Rafn 1830: 208
Þorsteins þáttr bæjarmagns/ Story of Þorstein House-Power	Unknown	15th cen.	Ch. 5, Ch. 11, Ch. 12	AM 343 a 4to (AD 1450-1500), AM 577 4to (AD (1450-1500), AM 589 e 4to (AD 1450-1500), and AM 510 4to (AD 1540-1560)	Glaesisvellir, shining fields; a district of Jotunheimar land of giants	Ch. 5: "Goðmundr am I called. I rule over a place called Glæsisvellir, which is a dependency of Risaland. I am the son of a king… The neighboring country is called Jotunheim. There rules a king called Geirröðr We are tributaries under him." My translation.	Ch. 5: "Goðmundr heiti ek. Ræð ek þar fyrir, sem á Glæsisvöllum heitir. Þar þjónar til þat land, er Risaland heitir. Ek er konungsson [...] Þat land liggr hér næst, er Jötunheimar heitir. Þar ræðr sá konungr, er Geirröðr heitir. Undir hann erum vér skattgildir." Guðni Jónsson 1950:328-329

EDDAS

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Stones	Full Quotes English	Full Quotes Icelandic
Prose Edda: *Gylfaginning/ The Tricking of Gylfi*	Snorri Sturluson	AD 1220	Ch. 15, 33	*Codex Regius/Konungsbók Snorra-Eddu (GKS 2367 4to) (1300-1350AD)*	"Glaer"/"Glassy" as a name for a horse that the gods ride; no specific god assigned to this horse	“The horse of the gods called Sleipnir is the best and he belongs to Oðinn. He has eight feet. Second is Happy, third is Sparkle, fourth is Glassy, fifth is Skeiðbrimnir, sixth is Silvertop, seventh is Sinir, eighth is Gils, ninth is Falhófnir, tenth is Goldtop and Litetfoot is eleventh.” My Translation.	"Hestar Ásanna heita svá Sleipnir er bazter og hann á Óðinn, hann hefir átta fætr; annarr er Glaðr, þriði Gyllir, fjórði Glær, fimti Skeiðbrimnir, sétti Silfrtoppr, sjaundi Sinir, átti Gils, níundi Falhófnir, tíundi Gulltoppr, Léttfeti ellipti." Faulkes 2005: 17
Prose Edda: *Gylfaginning/ The Tricking of Gylfi*	Snorri Sturluson	AD 1220	Ch. 8	*Codex Regius/Konungsbók Snorra-Eddu (GKS 2367 4to) (1300-1350AD)*	quartz possibly as giants' bones; foundational for creation	"Then Gangleri replied: 'What did Bor's sons do then, if you believe that they are gods?' High said: 'There is not just a little to be told about that. They took Ýmir and transported him to the middle of Ginnungagap, and out of him made the earth, out of his blood the sea and the lakes. The earth was made of the flesh and the rocks of the bones, stone and scree they made out of the teeth and molars of the bones that had just been broken.' ...They also took his brains and threw them into the sky amd made out of them the clouds, as it says here: From Ýmir's flesh was earth created, and from blood, sea; rocks of bones, trees of hair, and from his skull, the sky. And from his eyelashes the joyous gods made Midgard for men's sons, and from his brains were those cruel clouds all created.'" Faulkes 1988: 12-13	"Þá svarar Gangleri: ' Hvat höfðusk þá at Bors synir, ef þú trúir at þeir sé guð?' Hár segir: 'Eigi er þar lítit af at segja. Þeir tóku Ymi ok fluttu í mitt Ginnungagap, ok gerðu af honum jörðina, af blóði hans sæinn ok vötnin. Jörðin var gör af holdinu en björgin af beinunum, grjót ok urðir gerðu þeir af tönnum ok jöxlum ok af þeim beinum er brotin váru.' ...Þeri tóku ok heila hans ok köstuðu í lopt ok gerðu af skýin, svá sem hér segir: Ór Ymis holdi/ var jörð of sköpuð,/ en ór sveita sjár,/ björg ór beinum,/ baðmr ór hári,/ en ór hausi himinn;/ En ór hans brám/ gerðu blíð regin/ Miðgarð manna sonum,/ en ór hans heila/ váru þau hin harðmóðgu/ ský öll of sköpuð.'" Faulkes 2005: 12

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Stones	Full Quotes English	Full Quotes Icelandic
Prose Edda: *Skáldskaparmál/ The Language of Poetry*	Snorri Sturluson	AD 1220	Ch. 30	*Codex Regius/Konungsbók Snorra-Eddu (GKS 2367 4to) (1300-1350AD)*	jewels/stones as kenning for women; women also seen as supernatural here	"A woman shall be referred to by all female adornments, gold and jewels, ale or wine or other drink that she serves or gives, also by ale-vessels and by all those things that it is proper for her to do or provide...And the reason a woman is referred to by gemstones or beads is that there was in antiquity a female adornment that was called 'stone-chain' that they wore round their necks. Now itis made into a kenning, so that woman is now referred to in terms of stone and all words used for stone. Woman is also referred to in terms of all Asyniur or valkyries or norns or disir [(divine) ladies]." Faulkes 1988: 94	"Konu skal kenna til alls kvenbúnaðar, gulls ok gimsteina, öls eða víns eða annars drykkar þess er hon selr eða gefr, svá ok til ölgagna ok til allra þeira hluta er henni samir at vinna eða veita...En fyrir því er kona kend til gimsteina eða glersteina, þat var í fornsekju kvinna búnaðr er kallat var steinasörvi er þær höfðu á hálsi sér. Nú er svá fært til kenningar at konan er nú ken við stein eða við öll steins heiti. Kona er ok kend við allar Ásynjur eða nornir eða dísir." Faulkes 1998: 40
Prose Edda: *Skáldskaparmál/ The Language of Poetry*	Snorri Sturluson	AD 1220	Ch. 69	*Codex Regius/Konungsbók Snorra-Eddu (GKS 2367 4to) (1300-1350AD)*	jewels/stones as kenning for human eyes	"On a man there is what is called a head. Eyes are called sight and glance or look, aimers. They may be referred to by calling them sun or moon, shields and glass or jewels or stone of eyelashes or eyebrows, eyelids and forehead." Faulkes 1988: 153	"Höfuð heitir á manni...Augu heita sjón ok lit eða viðrlit, ørmjöt. Þau má svá kenna at kalla sól eða tungl, skjöldu ok gler eða gimsteina eða stein brá eða brúna, hvarma eða ennis." Faulkes 1998: 108
Prose Edda: *Skáldskaparmál/ The Language of Poetry*	Snorri Sturluson	AD 1220	Verse 327 in Þorgríms þulur	*Codex Regius/Konungsbók Snorra-Eddu (GKS 2367 4to) (1300-1350AD)*	"Glaer"/ "Glassy" as a kenning for "horse"	N/A	"Blóðughófi hét hestr/ok bera kváðu/oflgan Atríða./Gils ok Falhófnir,/Glær ok Skeiðbrimir/þar var ok Gyllis of getit." Faulkes 1998: 89
Poetic Edda: *Guðrunarkviða III/The Third Lay of Guðrun*	Unknown	AD 1260 - 1280	Verse 3	*Codex Regius/Eddukvæði — Sæmundar-Edda (GKS 2365 4to) (1260-1280AD)*	swearing on a white stone	"I'll swear you oaths about all this,/ by the sacred white stone,/ that with Thiodmar's son I never did anything/ which a lady and man ought not to do together." Larrington 2008: 203	"Guðrun kvað: 'Þér mun eg alls þess/ eiða vinna/ að inum hvíta/ helga steini,/ að eg við Þjóðrek/ þagði áttag,/ er vörð né ver/ vinna knátti-t,'" Ólafur Briem 1976: 409

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Stones	Full Quotes English	Full Quotes Icelandic
Poetic Edda: *Guðrunarkviða III/The Third Lay of Guðrun*	Unknown	AD 1260 - 1280	Verse 9	*Codex Regius/Eddukvæði — Sæmundar-Edda (GKS 2365 4to) (1260-1280AD)*	flashing white stones associated with sacred boiling	"She stretched her bright hands down to the bottom/ and there she seized the precious stones:/ 'Look now, warriors - acquitted am I,/ by the sacred test - how this cauldron bubbles.'" Larrington 2008: 204	"'Brá hún til botns/ björtum lófa,/ og hún upp um tók/ jarknasteina:/ 'Sé nú, seggir,/ sýkn em eg orðin/ heilaglega,/ hve sjá hver velli.'" Ólafur Briem 1976: 410
Poetic Edda*:* *Grímnismál/ Grimnir's Sayings*	Unknown	AD 1260 - 1280	Verse 40	*Codex Regius/Eddukvæði — Sæmundar-Edda (GKS 2365 4to) (1260-1280AD)*	Quartz possibly as giants' bones	"From Ýmir's flesh the earth was made,/ and from his blood, the sea,/ mountains from his bones, trees from his hair,/ and from his skull, the sky." Larrington 2008: 57	"Úr Ýmis holdi var jörð um sköpuð, en úr sveita sær, björg úr beinum, baðmur úr hári, en úr hausi himinn." Ólafur Briem 1976: 159
Poetic Edda*:* *Grímnismál/ Grimnir's Sayings*	Unknown	AD 1260 - 1280	Verse 30	*Codex Regius/Eddukvæði — Sæmundar-Edda (GKS 2365 4to) (1260-1280AD)*	"Glaer"/"Glassy" as a name for a horse that the gods ride each day to make judgements at Yggrdrasil	"Glad and Golden/Glassy and Skeidbrimir/Silvertuft and Sinir/Brilliant and Hidden-hoof/Goldtuft and Lightfoot/these horses the Aesir ride/every day when they ride to sit as judges/at the ash of Yggrdrasil." Larrington 2008: 56	"Glaður og Gyllir/Glær og Skeiðbrimir/Silfrintoppur og Sinir/Gísl og Falhófnir/Gulltoppur og Léttfeti/þeim ríða æsir jóm/dag hvern/er þeir dæma fara/að aski Yggdrasils." Ólafur Briem 1976: 156
Poetic Edda: *Vafþrúðnismál/ Vafþrúðnir's Sayings*	Unknown	AD 1260 - 1280	Verse 21	*Codex Regius/Eddukvæði — Sæmundar-Edda (GKS 2365 4to) (1260-1280AD)*	quartz possibly as giants' bones; foundational for creation	"Vafthrudnir said: 'From Ýmir's flesh the earth was shaped,/ and the mountains from his bones;/ the sky from the skull of the frost-cold giant,/ and the sea from his blood.'" Larrington 2008: 43	"Vafþrúðnir kvað: 'Úr Ymis holdi/ var jörð um sköpuð,/ en úr beinum björg,/ himinn úr hausi/ ins hrímkalda jötuns,/ en úr sveita sjór.'" Ólafur Briem 1976: 139
Poetic Edda: *Helgakviða Hundingsbana II/ The Second Lay of Helgi Hundingsbane*	Unknown	AD 1260 - 1280	Verse 31	*Codex Regius/Eddukvæði — Sæmundar-Edda (GKS 2365 4to) (1260-1280AD)*	swearing on a sacred stone belonging to the daughter of the sea-god Ægir	"May all the oaths which you swore/ to Helgi rebound upon you,/ by the bright water of Leift/ and the cool and watery stone of Unn." Larrington 2008: 138	"Sigrún kvað: 'Þig skyli allir/ eiðar bíta,/ þeir er Helga/ hafðir unna/ að inu ljósa/ Leiftrar vatni/ og að úrsvölum/ Unnar steini.'" Ólafur Briem 1976: 292
Poetic Edda: *Völundarkviða /The Lay of Völund*	Unknown	AD 1260 - 1280	Verse 40	*Codex Regius/Eddukvæði — Sæmundar-Edda (GKS 2365 4to) (1260-1280AD)*	human eyes turned into gems	"And from their eyes he shaped exotic stones/ he sent them to the cunning queen of Nidud/ and from the teeth of the two/ he struck brooches; sent them to Bodvild." Larrington 2008: 106	"En úr augum/ jarknasteina/ sendi hann kunnigri/ konu Níðaðar/ en úr tönnum/ tveggja þeirra/ sló hann brjóstkringlur,/ sendi Böðvildi." Ólafur Briem 1976: 243-244

OTHERS

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Stones	Full Quotes English	Full Quotes Icelandic
Grágás/ Laws of Early Iceland	Unknown	AD 1117-1118	Kristinna Laga Þáttr (Ch. 7)	*Staðarhólsbók (AM 334 fol.) (1260-1281AD); & Konungsbók Grágásar (GKS 1157 fol.) (1240-1260AD)*	medieval magical stones outlawed	"People are not to do things with stones or fill them with magic power with the idea of tying them on people or livestock. If a man puts trust (or put faith in special stones or animals) in stones for his own health or that of his livestock, the penalty is lesser outlawry." Dennis, Foote, & Perkins 1989: 39	"Menn scolo eigi fara með steina eða magna þa til þes at binda á menn eða a fé manna. Ef men trua a steina til heilindis ser eða fé oc varðar fiorbaugs Garð." Finsen 1852: 22-23
Swedish Poem: *Den vises sten/ The Philosopher's Stone*	Sturkarus Thurgili	AD 1379	N/A	*UUB C 391*	magic stone	"…Den vises sten (The Philosopher's Stone), tells of a marvelous stone belonging to a maester 'master', the life-giving properties of which restore a man to health, indeed raise him from the dead. But the stone not only gives him life but also endows the man with 'wisdom and understanding,' as well as 'strength and power.' Further, it cures lameness, deafness, and blindness. Much of the poem is concerned with the man's attempts to keep the stone from falling into the hands of the enemy, and by various means he ensures that it does not come into the devil's grasp." Mitchell 2011: 62-63	*Den vises sten* - see Geete 1900
Galdrabók: Hulinhjálmssteinar / Invisibility Stones	Þorkell Jónsson á Hrauni í Grindavík; Unknown; Guðmundur Guðmundsson & Guðmundur Sveinsson; & Jón Árnason	16th - 17th cen.	Steinsögur in Íslenzkar Þjóðsögur og Aefintyri	*Hamraendabók/ Samtíningur (JS 392 8vo) (1747-1752AD); Kreddur ýmsar og lækningar (JS 221 8vo) (1762-1799AD); Herrauðar saga og Bósa in Kver (ÍB 131 8vo) (1833AD) & Íslenzkar Þjóðsögur og Aefintyri (Lbs 533 4to) (1850-1865AD)*	invisibility stones	18. ""Very early in the Nordic countries, it was time-consuming to make a helmet for various spells that could make people and things invisible, i.e. to make a cloud that darkened or covered all that was hidden. Hulinhjalmarssteinn is dark red in color. It should be stored under the left arm. But if one wants to use it and make himself invisible, then one should hide it in the left palm, wrapped in a cap or leaf, so as not to look at it; the same person becomes invisible, but sees everything that goes on around him." My Translation	“Mjög snemma hefir það tíðkazt á norðurlöndum , að neyta hulinhjálms til ýmsra galdrabragða, sem gjöra máttu menn og hluti ósýnilega, t. d. til að magna með honum ský, er lögðu myrkva eða huln yfir alt, sem falið átti aðvera. Hulinhjálmssteinn er dökklifrauður að lit. Geyma skal hann undir vinstra armi. En ef maður vill neyta hans, og gjöra sig ósýnilegan, skal maður fela hann í vinstra lófa, vafðan í hárlokk eða blaði, svo ekki sjái á hann neinstaðar; verður sá hinn sami ósýnilegur ámeðan, en sér þó sjáltur alt, sem fram fer í kríng um sig. " Árnason 1862: 650

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Stones	Full Quotes English	Full Quotes Icelandic
Galdrabók: Óskasteinar/Wishing Stones	Unknown; compiled by Ólafur Davíðsson, Eggert Ólafsson & Jón Árnason	16th-17th cens.	Steinsögur in Íslenzkar Þjóðsögur	*The Spell-book of Students to Skálholt 1664; Ferðabók Eggerts og Bjarna 1752-1757 & Íslenzkar Þjóðsögur og Aefintyri (Lbs 533 4to) (1850-1865AD)*	Wishing stones	" The wishing stone is found by the sea, at half-past six, when the moon is 19 nights and the sun is in full south. Seek it on the morning of Easter; carry it under your tongue and speak what you want. This stone is white-yellow in color and somewhat light-colored; it is very similar to a bean." My translation	"Óskasteinninn heitir svo, af því að hvers sem maður óskar sér, þegar maður hefir hann, fær maður ósk sína uppfylta. Ýmsum sögum fer einnig um það, hvernig hann fáist. 1. Óskasteinn finnst við sjó, að half-föllnu, þegar túngl er 19 nátta og sól í fullu suðri. Leita þú hans á páskamorguninn, ber hann undir túngurótum þér og mæl til þess, er þú vilt.Steinn þessi er hvítgulur að lit og nokkuð ljósleitur; hann er mjög líkur baun." Árnason 1862: 651
Galdrabók: Lífsteinar/*Life Stones*	Unknown; Þorkell Jónsson á Hrauni í Grindavík & Jón Árnason	AD 1330-1370 & 16th-17th cens.	Steinsögur in Íslenzkar Þjóðsögur	*Kormáks saga in Möðruvallabók (AM132 fol.) (1330-1370AD); Hamraendabók/ Samtíningur (JS 392 8vo) (1747-1752AD); Íslenzkar Þjóðsögur og Aefintyri (Lbs 533 4to) (1850-1865AD)*	healing or life-giving stones	"It is called this because it both gives life to which is dead or dying, gives longer life and heals wounds faster and better than any other thing.... A life stone is found where the earth rolls over and thunder falls; it is a little bit red in color and small; it is found high in the mountains. They are pinkish but also come in various colors and sizes. My translation.	"Nafn sitt hefir hann af því , að hann bæði lífgar það, sem dautt er, eða dauðvona, leingir líf manns, og græðir sár fljótar og betur en nokkur hlutur annar....Lífsteinn finnst og þar sem jörðin veltist um og skrugga fellur; hann er rauður á lit og dálítill; hann finnst á háfjöllum. þar grandar ekki eldur, sein lífsteinn er inn borinn...Þeir voru bleikleitir, en þó með ýmsum litum og ýmsri stærð." Árnason 1862: 653-654
Galdrabók: Fésteinar/ Wealth Stones	Jón Árnason	16th-17th cens.	Steinsögur	*Íslenzkar Þjóðsögur og Aefintyri (Lbs 533 4to) (1850-1865AD)*	Stones that give wealth	“"It is shaped like a sheep's tongue, white in color with small hairs, and on the other end, is a thin, black streak. It grows outside on the womb of a sheep... It is found by the sea when the moon is 9 nights; store it and it will come in handy. Another wealth stone is “ímóalóttur” in color, and spherical; it is found expelled from the sea. It should be stored in white and unburned clay." My translation	"Hann er skaptur sem sauðartúnga, hvítur að lit með litlum hrufum, og er í öðrum endanum, þeim mjóa, svört rák. Hann vex utan á vömbunni í sauðfé. þú skalt taka hann og herða, og geyma í hirzlu þinni. Hann finst opt við sjó þá túngl er 9 nátta; geym hann og mun aoð gagni koma. Annar fésteinn er ímóalóttur að lit, og rétt hnöttóttur; hann finnst rekinn af sjó. Hann skal geyma í hvítu og óbornu lérepti." Árnason 1862: 655

Title	Author	Likely First Written	Chapter	Original Manuscript Referenced	Context for Stones	Full Quotes English	Full Quotes Icelandic
Galdrabók: Stefnir	Jón Árnason	16th-17th cens.	Steinsögur	*Íslenzkar Þjóðsögur og Aefintyri (Lbs 533 4to) (1850-1865AD)*	Stone has several uses	" It is very thin and white in color. It has 9 natures, and all are good except one... This stone is found often on volcanoes. Look for it on the Jons mass night. " My translation	" Er hann ofan mjór og hvítur að lit. Hann hefir 9 náttúrur, og eru allar góðar, nema ein... þessi steinn finnst oft á eyjifjöllum. Leita þú að honum á Jónsmessunótt." Árnason 1862: 655
Galdrabók: Hirundosteinar	Jón Árnason	16th-17th cens.	Steinsögur	*Íslenzkar Þjóðsögur og Aefintyri (Lbs 533 4to) (1850-1865AD)*	Stone used for physical protection	“They are often found three at a time and found in a stomach(?). The first is red, the second is black, and the third is white… whoever has the white one will never be beaten.” My translation.	"a) Þeir eru opt þrír í einu og finnast í svölumaga, einn þeirra er rauður, annar svartur, þriði hvítur...en hver sem hefir hinn hvíta, verður aldrei í hel sleginn.” Árnason 1862: 655
Galdrabók: Agat	Eggert Ólafsson & Jón Árnason	16th-17th cens.	Steinsögur in Íslenzkar Þjóðsögur	*Ferðabók Eggerts og Bjarna 1752-1757; Íslenzkar Þjóðsögur og Aefintyri (Lbs 533 4to) (1850-1865AD)*	associated with magic and ghosts?	"Many Icelanders belief in its sexuality, especially those who live in Hornstrandir, as it is considered ancestral land and the main home of ghosts and magic... it has 24 natures…Eggert has also stated that Icelanders believe that the black agate is black electricity, and Mohr, and that it is good for men, but the white (it's yellow electricity or white) is good for women." My translation	"Mikla trú Ísleníngar haft á kynjamagn hans, er einkum þeir, sem byggja Hornstrandir, enda eru þær taldar óðals- land og aðalheimkynni drauga og galdra... hann hafi 24 náttúrur....Eggert hefir og tekið það fram, að Islendíngar álíti að svarta agatið sé svartur rafur, og Mohr, að það dugi karlmönnum, en hið hvíta (það er gulur rafur eða hvítur) dugi kvennfólki." Árnason 1862: 656
Hauksbók: Náttúra steinar	Haukr Erlendsson	AD 1290-1360	*Náttúra steinar*	*Hauksbók (AM 544 4to) (1290-1360AD)*	"Seven Precious Stones And Their Nature"	"Chrysoprasus [type of chalcedony]. Comes from Ethiopia. It is dark in light but light in dark? It glows like fire at night but during the day it is like pinkish-yellow." my own translation	"Crisopatius kemr af Eðopia hann er i myrkri lios en i liosi myrkr. hann gloar sem elldr um nott en um dag er hann sem bleikt gull." Haukr Erlendsson 1892: 227

APPENDIX D

ICELANDIC SITES WITH CATS

Site Name	Site Type	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	# of Humans	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Ingiríðarstaðir, Suður-Þingeyjarsýsla	Grave field	Inhumations at grave field	Viking Age	1	distal ends of both sides of the mandible, a portion of the distal maxilla, the proximal end of an ulna, a fragment of the proximal end of a scapula, the axis and atlas, and fragments of two other vertebrae	N	1	?	Adult skull frag in pit; newborns in pit nearby	Pig, Cow, Sheep	N/A	Found in a pit in a turf wall in the grave field
Hofstaðir, Suður-Þingeyjarsýsla	Long Hall/Cult Site	N/A	Late Viking Age	3?	13 bones; Several concentrations of cat bones; some clearly articulated limb and vertebral groups were documented, but no fully complete skeletons suggestive of deliberate burial	Y; 1 on pelvis & 1 on femoral shaft	N/A	N/A	N/A	N/A	N/A	Evidence for skinning; This is a cult house
Alþingisreit, Reykjavík	Settlement	N/A	Late Viking Age	at least 2	tibia, 2 femurs, cervical vert, radius, ulna	N/A	N/A	N/A	N/A	N/A	N/A	N/A

APPENDIX E

NORWEGIAN SITES WITH CATS

Site Name	Site Type	Site Code	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	# of Humans	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
MortensneS, Nesseby, Finnmark, Gr. 149	Grave	Ts6484	?	Sami Iron Age	?	14 frags of cat bones	?	?	?	?	5 frags of unidentifiable animals	birch bark with cut marks	N/A
Rødberg, Nordre Land, Oppland, Gr. 119	Grave	C23297	?	Migration Age	1	foot bones for fur?	?	?	?	?	N/A	iron knife blade, ceramics, iron spindle, bronze finger ring, 2 bone needles, bone comb, fur	N/A
Frogner, Skien, Telemark, Gr. 62	Grave	C22338	?	Viking Age	1	Cranium	?	?	?	?	8 horse teeth	iron spearhead; iron axe blade; iron shield buckle; iron bridle rings; iron object	N/A
Gokstad Nedre, Sandefjord, Vestfjord	Boat Grave	C10384	Inhumation	Viking Age	?	?	?	1	M	40s	12 horses, 8 dogs, 2 goshawks and 2 peacocks	gaming board with counters of horn, fishhooks and harness fittings made of iron, lead and gilded bronze, 64 shields, kitchen utensils, six beds, one tent, a sleigh and three small boats.	Possible cat bones found

Site Name	Site Type	Site Code	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	# of Humans	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Oseberg, Tønsberg, Vestfold	Boat Grave	C55000	Inhumation	Viking Age	?	Cat skin?	?	2	F/F	70/80s & 50s	horse, dog, cow	textiles, shoes, bone/horn comb, wooden bed, ship equipment, kitchen utensils, farm tools, decorated wooden sleighs, wooden cart, wooden bed, carved wooden animal heads, tents	Cat bones are possibly modern
Kaupang, Larvik, Vestfold	Cat Fur Production	C27997	N/A	Viking Age	several	Various	Y	N/A	N/A	N/A	N/A	N/A	Evidence for cat-skinning at a settlement

APPENDIX F

DANISH SITES WITH CATS

Site Name	Site Type	Bone Num.	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	# of Humans	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Vejleby, Lolland, Sjælland	Grave	ZMK 113/1962	?	Viking Age/early Medieval	?	?	?	?	?	?	?	?	N/A
Hammelev, Haderslev, Sønderjylland	Grave	?	Cremation	Early Mesolithic	1?	prox end left radius, prox end of right ulna	Y; distal end of radius	1	F?	Adult	N/A	perforated bone pin; flint core axe; flint blades; flint frags; red ochre	wildcat
Kastrup, Gram, Sønderjylland	Grave	ZMK 153/1971	Cremation	Late Roman Iron Age (AD 200)	1	Astragalus	Y	1	?	Adult	Sheep	sheep astragalus with a perforated hole, possibly used as a pendant	N/A
Almosen, Tyvelse, Sjælland	Bog Votive	ZMK 48/1992	N/A	Late Bronze Age (1000 - 500 BC)	1	Tibia	?	N/A	N/A	N/A	N/A	N/A	Probably wildcat
'Jernkatten' – no site name	Bog Votive	ZMK 81/000	N/A	Pre-Roman Iron Age - Roman Iron Age (500 BC – AD 375)	1	Near complete skeleton	?	N/A	N/A	N/A	N/A	N/A	wildcat
Viborg, Søndersø, Midtjylland	Cat Fur Production	ZMK 14/1998	N/A	Viking Age/Early Medieval (AD 1000-1300)	166 frags.	Various	Y	N/A	N/A	N/A	N/A	N/A	Production Refuse Pit

Site Name	Site Type	Bone Num.	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	# of Humans	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Læderstæde 4, Roskilde, Sjælland	Cat Fur Production	ZMK 61/2015	N/A	Medieval c. AD 1200–1400	434 frags	Various	Y	N/A	N/A	N/A	N/A	N/A.	Production Refuse Pit
Overgade, Odense, Syddanmark	Cat Fur Production	ZMK 142/1970	N/A	Viking Age (AD 1070 ± 100)	~ 68 indv. (1783 frags)	Various	Y	N/A	N/A	N/A	N/A	N/A	Production Refuse Pit
Svendborg Matr. nr. 607a, Syddanmark	Cat Fur Production	ZMK 154/1977	N/A	Medieval (AD 1200-1500)	251 frags.	Various	Y	N/A	N/A	N/A	N/A	N/A	Production Refuse Pit
Tybrind Vig, Fyn	Wildcat Fur Production	?	N/A	Mesolithic	Min. 1	Various	Y	N/A	N/A	N/A	N/A	N/A	Fur Station
Hjerk Nor, Limjford, Jutland	Wildcat Fur Production	?	N/A	Mesolithic	At least 19	Various	Y	N/A	N/A	N/A	N/A	N/A	Fur Station
Agernæs, Fyn	Wildcat Fur Production	?	N/A	Mesolithic	?	Various	Y	N/A	N/A	N/A	N/A	N/A	Settlement
Kongemose, Åmose, Sjælland	Wildcat Fur Production	?	N/A	Mesolithic	Min. 1	Various	Y	N/A	N/A	N/A	N/A	N/A	Settlement

APPENDIX G

SWEDISH SITES WITH CATS

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Bo Ucklum Övergård 3:3, 4:3 Sköllunga Gr. 16	SHM 29522 (F37)	457500	Mound Grave	Cremation	Migration Age	1?	?	?	?	?	N/A	ceramic vessel; iron clasp; potsherds	N/A
Dr Sollerön Bengtsarvet Gr. 8	SHM 22294	266312	Cairn Grave	Mix	Viking Age	1?	?	?	?	?	Pig, cow, horse, dog, bird	iron horse crampon; slag; 2 iron spikes; 35 iron rivets; modern iron horse shoe?; iron plate; 8 iron arrowheads/spears	Unburnt cat, burnt/unburnt human bones
Gä Valbo Järvsta Gr. 14	SHM 22868:14	584620	Stone Cist Grave	Inhumation?	Younger Iron Age	1?	mandible	?	?	?	calf	iron ring; iron key; 3 glass beads; iron frying pan	Unburnt cat
Go Gammelgarn Rammunds 1:13 Rommunds Gr. 2/86	SHM 32389	255501	Grave field	Inhumation	No Date	1?	?	?	?	Adult	Dog, bird	bronze end knob/button?; bone/horn comb; 37 blue/white glass frags; born/horn object; potsherds; grindstone frag; slag/glass bead?; bronze pin	N/A
Go Halla Broa, Gr. 29	SHM 20517	785712	Grave field	Mix	Viking Age	1?	?	?	?	?	Dog, bird	copper tweezers	Mix of burnt/unburnt human & cat bones
Go Hejnum Bjars, Gr. 31	SHM 8062	415616	Grave field	Inhumation?	Vendel Age	1?	Femur & tibia	?	?	?	Dog	Green glass vessel; iron sword	Unburnt cat

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Go Hejnum Bjars, Gr. 40	SHM 8062	415624	Grave field	Inhumation	Iron Age	1?	femur	?	?	1 adult/ 1 infant	N/A	1 silver ring; 2 bronze broaches in the form of hares; 16 other bronze broaches; 3 bronze ring broaches; 1 finger ring; 2 small rings with a bit of chain; 2 handles; 1 round ornament; 2 copper tweezers; 2 sewing needles; 6 other needles; 1 iron knife?; frags of 4 bowls; several thin plates; bits of unknown bronze object; iron rivets; iron spikes; iron sword; 23(frags?) iron knives; 5 iron axes; 3 iron spears; 7 iron arrowheads; 1 iron shield handle; 2 iron spurs; 1 iron box handle; decorated iron keyhole for a box; 5 keys; unknown iron object; 200(?) glass beads; 12 gaming pieces; 1 bone handle; smoothing stones?	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Go Hejnum Bjars, Gr. 100	SHM 8767	837281	Grave field	Inhumation?	Iron Age	1?	?	?	?	?	Dog	2 gold finger rings; 1 silver finger ring; 1 bronze arm ring; 1 glass bead; 12 bronze fittings; 5 bronze broaches; 5 bronze needles; bronze fitting in the form of a duck; bronze tweezers; drinking horn frags; bronze vessel; bronze chain; bronze vessel handle; bronze buttons; iron shield buckle; 2 iron spears; iron shield handle; iron arrowhead; iron sword; 14? iron knives; 4? bronze/iron keys to a box; medieval iron scissors; 14 bone game pieces; 1 bone needle; 3 bone/horn comb frags?; 155 frags? of glass beads; medieval clay vessel; 1 glass vessel; fire starter stone; smoothing? stone	Unburnt cat

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Go Källunge Larsarve, valskvarn	SHM 20835	427562	Grave	Inhumation	Iron Age	1?	Cranial parts & humerus	?	?	?	Cow	?	Unusually large cat
Go Lärbro Lilla Vikers 1:14 Lilla Vikers Gr. 6	SHM 24099	419929	Cairn Grave	Inhumation	Iron Age	1?	?	?	?	infant	Pig, dog, sheep/goat, bear	resin?; bronze sheets; pierced bear claw; earthenware frags; 2 small shells	Likely a juvenile cat
Go Vallstena Vallstena rum	SHM 6595	413512	Grave field	Inhumation?	Iron Age	1?	?	?	?	?	Deer, cow, dog	Not sure which grave it belongs to	Unburnt cat
Go Väskinde Gällungs 1:9 Gällungs Gr. A9/73	SHM 32391 (F49)	1166694	Grave	Inhumation	Viking Age	1?	Long bone	?	?	Infant	N/A	4 iron objects; iron knife; green glass bead	Juvenile cat
Go Väskinde Kornettskogen, Stora Klintegårda 1	SHM 25453	225234	Cist Grave	Inhumation	Roman Iron Age - Migration	1?	?	?	?	?	N/A	robbed	N/A
Ha Fjärås Li 15:1 Li Gr. A209	SGM 31635 (F4)	25860	Grave	Cremation	Iron Age	1?	?	?	?	?	N/A	Bronze oval buckle/brooch?; iron crampon	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Hs Hälsingtuna Björka A	(SHM 34566) or (SHM 31283)	?	Grave	?	Migration – Viking Age	1	?	?	?	?	N/A	?	N/A
Hs Hälsingtuna Björka B	(SHM 34566) or (SHM 31283)	?	Grave	?	Migration – Viking Age	1	?	?	?	?	N/A	?	N/A
Me Timrå Prästbol 1:1 Gr. V	SHM 25518 (not updated); RAÄ Timrå 48:1	?	Mound Grave	?	Vendel Age	1	2 tibias	?	?	Adult	sheep/goat; pig; dog; big & little uniden. mammals	bone comb; 2 pieces of sanded slate; black bead (probably mixed from Viking Age)	More than 11 months old cat
Nä Edsberg Högen Gr. 17B	SHM 21783:17B	539992; 539993	Mound Grave	Cremation	Migration – Vendel Age	1?	?	?	F	?	cow, pig, horse, sheep/goat, dog, bird	silver thread/wire; 2 glass vessels; 23 glass beads & 3 amethyst beads from eastern Mediterranean; 4 red glass beads w/thin bronze bands; iron loop; horn comb; bronze bead; 3 bronze frags;	**N/A**
Ög Hagebyhöga Hagebyhöga By Gr. 2	SHM 15465	527920	Mound w/stone cist grave	Inhumation?	Bronze Age	1?	?	?	?	?	N/A	Bronze razor; bone awl; flint point; flint frag; 1 iron knife; dagger mount w/sheathe	Unburnt cat
Ög Högby Högby gård	SHM 24793	**?**	Grave	?	Viking Age	1?	?	?	?	?	N/A	?	N/A
Ög Norrköping Fiskeby (Västra Gravfältet) Gr. 65/F	SHM 24569	529768	Round Stone setting grave	Cremation	Migration – Viking Age	1?	?	?	?	?	Dog	Bone comb	N/A
Ög Norrköping Händelö	RAÄ-nummer Sankt Johannes 1:1?	?	Grave	?	Viking Age	3?	?	?	?	?	N/A	?	N/A
Ög Sankt Lars (A:63) Gr. 63	SHM -99 (F9)	840347	Grave	Cremation	No Date	1?	?	?	?	?	Horse	?	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Ög Skönberga Skönberga prästgård Gr. 2	SHM 14142:2	779399	Mound Grave	Cremation	Iron Age	1?	?	?	?	?	Dog	Iron handle; iron knife; iron rivet; iron spike	N/A
Ög Törnevalla Linghem Gr. 233	SHM 34595	303803	Grave	Cremation	No Date	1?	?	?	?	?	Cow, horse, dog, pig	3 textiles; textile object	N/A
Öl Egby Sandby 4:3 Sandby, Röråkern Gr. 4:3?	SHM 30229	7995	Cairn Grave	Inhumation	Iron Age	1?	?	?	?	?	Dog, horse, cow, sheep, bird	bronze shield buckle; bronze rivet; iron spearhead; ceramic vessel; iron grommet?	Juvenile cat
Öl Gärdslösa Sörby-Störlinge Gr. 172	SHM 28364 (F649)	473309	Cist Grave	Inhumation	Pre-Roman – Roman Iron Age	1?	?	?	?	?	Horse, cow, pig, sheep/goat, bird	Iron frags; ceramics	N/A
Öl Hulterstad Hulterstad bysamfällighet	SHM 25153	459712	Cist Grave	Inhumation	Iron Age	1?	?	?	?	?	Sheep/goat, dog, frog	iron ring frag; 2 iron nails	N/A
Öl Källa Källa 1:1 Källa ödekyrka	SHM 31153	1194533	Church ruin/grave?	Inhumation	Medieval – Modern	1?	?	?	?	?	seal	Not sure which grave it belongs to	N/A
Öl Köping Klinta 3:2, 3:3 Klinta Gr. 59:3	SHM 25840	434833	Cairn/Boat Grave	Cremation	Viking Age	1?	?	?	F	?	Horse, pig, dog, bear claws, bird	bronze pendant; iron scissors w/silver ring; iron knife; 23 iron rivets/spikes; 2 bronze sheets; 1 iron axe; glass smoothing stone; 5 bronze strap end fittings; 2 bronze cruciform fittings; 13 iron end fittings; 1 bronze buckle; 1 silver pendant; 2 bronze oval dress brooches; 2 bronze rings; iron/bronze rod; 123 beads (glass, crystal, & carnelian); bronze pitcher; bronze vessel frag; ceramic vessel; iron thor's hammer ring pendant	Might be a sorceress grave (Price 2019:142)
Sk Glumslöv Örenäs	SHM 13421	155855	Passage Grace	Inhumation	Stone Age	1?	?	?	?	?	Fox, deer, cow, pig, bird	bone ring; flint axe; flint; amber bead; ceramics	At least 7 humans

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Sk Smedstorp Gårdlösa, Gr. 67	SHM 25302	?	Grave	?	Viking Age	1?	?	?	?	?	N/A	?	N/A
Sm Berga Trotteslöv	(SHM 6638)	?	Mound Grave	Cremation	Viking Age	1?	Skull; femur	Yes, kill marks on orbital	?	Adult	horse, dog, pig, bird	glass beads; textiles; ceramics; bone comb; iron nails; tinplate	N/A
Sö Bettna Löta Gr. 43	SHM 8588	530798	Mound Grave	Cremation?	Iron Age	1?	?	?	?	?	N/A	bronze pendant; bronze frag; 2 iron knives; iron rivets & spikes; bits of a bone comb; 50? Bone gaming pieces; earthenware; clay beads; bits of whetstone; hen eggshell	Burnt cat
Sö Botkyrka Kumla Gr. 34	SHM 33932	376104; 376105	Round stone setting grave	Cremation	Viking Age	2?	?	?	?	?	N/A	Grave urn	N/A
Sö Botkyrka Slagsta gård 1:1, 2:1 Slagsta gård Gr. A7	SHM 30982 (F14)	612584	Mound Grave	Cremation	Migration – Viking Age	1?	?	?	?	?	cow, horse, sheep/goat, hare, hens	~7 iron rivets; 6 iron spikes; iron rod, possibly of a thor's hammer ring; bone comb with bronze; ceramic vessel; 2 pieces of quartz; another bone comb; bronze object; iron object; charcoal	N/A
Sö Eskilstuna Skiftinge 1:1 Gårdskäl Gr. 1642	SHM 36044 (F454)	1288388	Stone Setting Grave	Cremation	Viking Age?	1?	radius, tibia, tailbone	?	?	18-64	dog; horse; pig	burnt clay; iron object; horn/bone comb; ceramic vessel (prehistoric); grave urn (prehistoric); iron key (VA); iron rod; iron loop	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Sö Eskilstuna Skiftinge 1:1 Gårdskäl Gr. 1723	SHM 36044 (F501); (F515)	1288433; 1288447	Stone Setting Grave	Cremation	No Date	2?	scapula, femur, ribs, radius, fibula, ulna	?	M?	18-44	dog; horse; fish	iron fitting; whetstone; burnt clay; iron objects; horn comb; iron staple; ceramic vessel (prehistoric); grave urn (prehistoric); iron rivets; iron rod; iron/copper weight	N/A
Sö Eskilstuna Vallbyhem Gr. A8	SHM 31309 (F3)	414556	Irregular Stone Setting Grave	Cremation	Migration – Viking Age	1?	?	?	?	?	dog, sheep/goat	iron loop; iron rivet frags; 4 iron spikes; iron edge fitting w/rivets; 2 glass beads; 1 amber bead; bone comb; charcoal; ceramic vessel	N/A
Sö Härad Härads-Kumla 2:9 Härads-Kumla Gr. 12	SHM 34108 (F1897)	340501; 340723; 340724; 340730	Grave	Cremation	Migration – Vendel Age	1?	?	?	?	?	Pig, chicken, dog, horse, cow, sheep	iron spike?; whetstone; flint; resin; multiple horn combs; ceramic vessels; bone needle; 3 red glass beads; 2 green glass beads; blue & red glass bead; orange glass bead; numbered bone dice; iron awl; bone gaming piece	N/A
Sö Härad Härads-Kumla 2:9 Härads-Kumla Gr. 21	SHM 34108 (F1937)	340364	Grave	Cremation	Viking Age	1?	?	?	?	?	Rooster, pig, dog	iron spike?; whetstone; fire starter flint; horn comb; iron knife; iron spear/arrow heads; iron ring brooch	N/A
Sö Härad Härads-Kumla 2:9 Härads-Kumla Gr. 83	SHM 34108 (F2000)	340543	Grave	Cremation	Viking Age	1?	?	?	?	?	dog	2 whetstones; flint; horn comb	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Sö Härad Härads-Kumla 2:9 Härads-Kumla Gr. 86	SHM 34108 (F2010)	340603	Grave	Cremation	Viking Age	1?	?	?	?	?	Horse, sheep/goat, chicken, dog	flint (possibly processed, unburnt); copper hook; copper facemask (Oðinn?) pendant; horn comb; iron chain; 6 yellow glass beads; 4 green glass beads; 2 black glass beads; 1 white/black glass bead; silver foil glass bead; light brown clay bead; white glass bead; blue glass bead; 2 red glass beads; gold foil & glass bead	N/A
Sö Härad Härads-Kumla 2:9 Härads-Kumla Gr. 115	SHM 34108 (F2052)	340462	Grave	Cremation?	Older – Younger Iron Age	1?	?	?	?	?	dog	dark blue glass bead; brown glass bead; 2 clear & yellow glass beads	Burnt cat
Sö Härad Härads-Kumla 2:9 Härads-Kumla Gr. 127/128	SHM 34108 (F2065 & 2066)	340344; 340343	Grave	Cremation	Viking Age	1?	?	?	?	?	Horse, dog	resin; horn comb; iron knife; iron crampon (staple?); iron spear/arrowhead; red glass bead	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Sö Härad Härads-Kumla 2:9 Härads-Kumla Gr. 128	SHM 34108 (F2067)	340342	Grave	Cremation	Vendel – Viking Age	1?	?	?	?	?	Cow, pig, sheep, chicken, dog	iron amulet ring (At least four fragments of rod-shaped pendants); copper pendant; multiple horn combs; glass bead (opaque/white & clear); clear glass bead frag; blue glass bead; turquois glass bead; black/red/yellow/white glass bead; 3 white glass beads; 2 purple glass beads; green glass bead; silver foil & white glass bead; 2 gold foil & glass beads; 5 crystal beads; 2 turquois faience beads; light blue glass bead; light brown clay bead; white carnelian bead; 2 red carnelian beads	N/A
Sö Härad Härads-Kumla 2:9 Härads-Kumla Gr. 163	SHM 34108 (F2101)	340403	Grave	Cremation	Vendel	1?	?	?	?	?	Chicken, sheep/goat, dog, cow	iron spike?; flint; horn comb; red glass bead	N/A
Sö Härad Näsbyholm 3:27 Näsbyholm Gr. 16	SHM 33681 (F35:1); (F36:1)	259398; 259401	Grave	Cremation	Younger Iron Age	2?	?	?	?	?	Dog, chicken	ceramic vessel; ~10 glass beads; bronze chain; burnt clay; iron rivets/spikes; iron crampon?; iron clasp; iron fittings; bronze object; bone/horn comb	N/A
Sö Härad Näsbyholm 3:27 Näsbyholm Gr. 19	SHM 33681 (F35:1); (F36:1)	259382; 259385	Round Stone setting Grave	Cremation	Younger Iron Age	2?	?	?	?	?	Horse, pig, bear, sheep/goat, dog, shellfish	iron rivets/spikes; 2 single bone combs; flint; red glass bead; faceted carnelian bead; iron edge fitting; silver ornamental knots; ceramic vessel; silver Abbasid coin; iron crampon?; half silver coin Umajjad	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Sö Kattnäs Hollandet Gr. 7	SHM 21958	616754	Mound Grave	Cremation	Viking Age	1?	?	?	?	?	Dog, horse	earthenware; 2 frags of bronze plate; iron horse crampon; iron staples; 4 rivets; 6 spikes	N/A
Sö Kjula Kjulaås 7:1 Kjulaås Gr. A137	SHM 31113 (F1)	32775	Rounded Mound Grave	Cremation	Migration Age	1?	?	?	?	?	cow	bronze oval buckle/brooch? w/gripping animal on front & textile on back; bronze needle case w/gripping animal; bronze chain; bronze sheet; bronze object; iron crampon/spike?; 4 iron hooks; iron rivets/spikes; iron fitting; iron object; 1 blue glass bead; 1 horse tooth bead; glass object; bone comb; ceramic vessel; bread; wood; slag; burnt clay; charcoal; iron loop; iron wire	N/A
Sö Lunda Skällsta Gr. 59	SHM 33280 (F23)	258825	Grave	Cremation	Younger Iron Age	1?	?	?	?	?	dog	?	N/A
Sö Nacka Järla Gr. 3	SHM 10152:3	778420	Mound Grave	Cremation	Younger Iron Age	1?	?	?	?	?	N/A	iron boat nails & spikes; glossy stones; earthenware; bits of bone comb w/bronze fittings; 2 pieces flint; bronze needle case; bronze tweezers; bronze ring; 2 glass beads; iron scissors; iron knife; iron key; chest nails; bronze sheet; iron neck ring; iron hammer; iron shoe spike; iron hooks; wood object; crushed hazelnut; whetstone; flint	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Sö Nacka Sickla Gr. A8	SHM 31362 (F10)	35638	Stone Setting Grave	Cremation	Viking Age	1?	?	?	?	?	N/A	bronze ring buckle?; 3 iron spikes; 3 iron rivets; 1 iron object; ceramic vessel; bunt clay	N/A
Sö Österhaninge Gudö Gr. A5	SHM 31277:A (F2)	13853	Round stone setting grave	Cremation	Vendel – Viking Age	1?	?	?	?	?	horse	ceramic vessels; iron thor's hammer ring; iron crampon/spike?; iron rivets; iron sheets; iron object; bone comb; rounded stone	N/A
Sö Östertälje Karleby och Gärtuna Gr. 65	SHM 34517 (F114)	779264	Grave	Cremation	Vendel – Viking Age	1?	?	?	?	?	Cow, dog	?	N/A
Sö Östertälje Karleby och Gärtuna Monument 4, Gr. 22	SHM 34517 (F99)	278399; 278400; 278401; 278402; 278403; 779225	Grave	Cremation	Vendel – Viking Age	1-5?	shin, ankle, foreleg, metatarsal, toe bone, caudal bone	?	M	18-44	horse, dog, sheep/goat, cow, pig, goose, chicken	Iron Sword; iron lance tip	N/A
Sö Östertälje Karleby och Gärtuna Gr.26	SHM 34517 (F98)	779228	Grave	Cremation	Vendel – Viking Age	1?	?	?	?	?	horse, sheep/goat, dog	?	N/A
Sö Torshälla Folkesta 7:1 Folkesta, Rakåsen Gr. 30	SHM 29896 (F5)	533997	Rectangular stone setting grave	Cremation	Younger Bronze Age - Vendel	1?	?	?	?	?	Horse, bird, god	1 silver roman dinar coin; 1 bronze ring for a chain; iron rod; 10 iron rivets/spikes; bone comb; resin	N/A
Sö Trosa-Vagnhärad Husby Gr. E14	SHM 19224	415961	Grave field	Cremation	Iron Age	1?	?	?	?	?	Horse, dog, sheep/goat, bird	Bronze frags	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Sö Tumbo Berga 1:1 Berga Gr. 2	SHM 33855	362349	Round stone setting grave	Cremation	Younger Iron Age	1?	?	?	?	?	Dog, sheep/goat, unident., cow	iron rivets/spikes; cereal grains; flint frag; ceramic vessel; bone/horn comb	N/A
Sö Tumbo Berga 1:1 Berga Gr. 21	SHM 33855 (F24)	362106	Block grave	Cremation	Younger Iron Age	1?	?	?	?	child	N/A	iron rivets/spikes; bone/horn comb; ~10 glass beads; ceramic vessel; iron fitting	N/A
Sö Tumbo Husby 1:3 Husby Gr. 1	SHM 33819 (FV)	265086	Mound Grave	Cremation	Younger Iron Age	1?	Possibly vertebrae	Y	?	?	Horse, dog	7+ iron fittings; ceramic vessels frags; iron frags; Bell of iron with strip-like rectangular attachment fittings of iron. Remaining sound stone in bell.; Iron bell with ribbon-shaped triangular bracket; iron object; bone comb; iron rivets/spikes; iron belt buckle; iron bell/fitting; burnt bone/iron conglomerate	unburned animal vertebrae (slaughter marks?); disturbed layers
Sö Turinge Mörby 5:2 Värsta backe Gr. A41	SHM 31872 (F65)	38905	Grave	Cremation	Iron Age	1?	?	?	?	?	Horse, bird	iron rivet; 2 iron objects; iron crampon/spike?; bone comb; dropwort plant; ceramic vessel; charcoal; bone comb	N/A
Sö Västerhaninge Häringe Gr. 24	SHM 21270	779105	Mound granve	Cremation	Viking Age	1?	?	?	?	?	N/A	iron thor's hammer ring frag	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Sö Vansö Husby Ingjaldshögen Gr. 59	SHM 16340	?	Mound Grave	?	Viking Age (800s)	1?	?	?	M	Adult	horse, dog, sheep/goat, cow, pig, eagle owl, goshawk, goose, duck, chicken	iron sheet; flint; bronze frags; bone/iron comb; ceramic vessel; glass vessel; iron arrowhead;30 bone gaming pieces; bone die; iron pin; iron spike/rivet	N/A
Sö Västerljung Tuna 5:1 Tuna Gr. 17	SHM 27466 (F7)	779130	Stone setting grave	Cremation	Viking Age	1?	?	?	?	?	horse	2 iron spikes/rivets & lots of frags; iron rod; 3 boards of carbonized oak; bronze sheet; bone comb; earthenware; piece of flint	Cat found in stone layer
Sö Västermo Södra Åby Gr. 7	SHM 26223	778430	Cobblestone mound grave	Cremation?	Younger Iron Age	1?	?	?	?	?	Cow, sheep/goat, pig, fish	potsherds	Unburnt cat, possibly burnt human
Sö Västra Vingåker Källstugan 10 Källstugan Gr. 11	SHM 36052 (F141.1243)	1289168; 1289153	Grave	Cremation	Vendel – Viking Age	1-2?	skull frag; ulna (2x)	?	?	Adult	Dog, pig	red glass bead; grindstone; ceramic vessel frags; burnt clay; burnt resin; burnt organic materials; iron frags	N/A
Up Adelsö Björkö, Grindsbacka Birka Gr. 696	SHM 34000:Bj 696	148577	Grave	Cremation	Viking Age	1?	?	?	?	?	Dog, bird	Ceramic vessel	N/A
Up Adelsö Björkö, Hemlanden Birka Gr. 1	SHM 34000:Bj 1	148052	Mound Grave	Cremation	Viking Age	1?	?	?	?	?	Sheep, bird	iron fitting; iron horse ice nail; ceramic vessel; iron rod	A small, but not young cat (tamkatt)
Up Adelsö Björkö, Hemlanden Birka Gr. 11	SHM 34000:Bj 11	148057; 148076	Mound Grave	Cremation	Viking Age	2?	?	?	?	?	Bird	iron object; ceramic vessels; bone bead; slag; iron rod	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Adelsö Björkö, Hemlanden Birka, Gr. 138C	SHM 34000:Bj 138C	147806	Mound Grave	Inhumation	Viking Age	1?	?	?	?	?	N/A	?	Burnt cat, unburnt human
Up Adelsö Björkö, Hemlanden Birka; Gr. 96	SHM 34000:Bj 96	147183	Mound/ Boat Grave	Cremation	Viking Age	1	frags: of humerus (R), radius (R) ulna (L&R), femur (L), tibia (R), calcaneus (R), MC 4 (L), MT 3 (R), MC 2 frags, lumbar vert, 3 verts, toe phalanx	?	?	?	Dog, bird, & unident. mammal	1 iron bracket; 1 iron key; 1 glass bead; 5 circular shield edge bracket (compound); 1 flint; 5 iron/bone frags; 1 sheet iron; 2 frags ceramic vessel; ~70 rivets & nails	N/A
Up Adelsö Björkö, Hemlanden Birka, Gr. 145	SHM 34000:Bj 145	?	Grave field	Cremation	Viking Age	1?	?	?	?	?	Horse, eider, mallard	Frags of bronze ring buckle; round iron weight covered in bronze sheet metal; iron belt divider, a ring, and belt holder; blade made of sheet iron attached to leather with a bronze rivet; 2 iron knives; a perforated whetstone of gray slate; small comb frags; decorated bronze clasp; iron needle; unburned object made of bone	hill made of sand & stone

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Adelsö Björkö, Hemlanden Gr. 151	SHM 34000:Bj 151	148071; 148099	Mound Grave	Cremation	Viking Age	2?	?	?	?	?	Dog, bird, cow, pig, horse, unident.	bronze fitting; iron horse bridle; iron frags; twisted iron; 2 bronze loop pendants; 2 silver ring pendants; iron ice shoe nail; iron ice horse shoe nail; 3 bone/horn/bronze combs; bronze chain; iron chain; bronze knife; iron knife; iron crampon; ceramic vessel; iron swivel; iron rivets/spikes; iron whip fitting; 2 bronze beads; 122 glass/crystal/carnelian beads; iron strap fitting; 3 bronze rings; iron ring; bronze brooch; iron/wood awl	N/A
Up Adelsö Björkö, Hemlanden Birka; Gr. 188	SHM 34000:Bj 188	?	Grave field	Cremation	Viking Age	1?	?	?	?	?	Dog, hen	Sheath (?) Made of bronze sheet metal; Bronze wire ring, set in a spiral; needle case of long bones; 2 iron rings w/Thor's hammers; 1 iron ring w/possible Thor's hammer; 1 iron ring by itself; 10 iron rivets & nails; 12 glass beads	Hill made of sand & clay; stone slab in center; terracotta pot with burnt bones

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Adelsö Björkö, Hemlanden Birka; Gr. 750	SHM 34000:Bj 750	?	Mound/ Chamber Grave	Inhumation	Iron Age – Viking Age	1	pelvis	?	?	Infant (0-6mo.); child (8-10)	horse, cow, pig, sheep/goat, fish, bird, goose	iron sword; ceramics; burnt clay; iron rivets; whetstones; flint; glass bead; loom weight; iron objects; iron nails; iron needles; iron rivet plate; iron axe; slag; iron knife; copper scale; quartz; wood; glass frags; horn frags; horn comb	N/A
Up Adelsö Björkö, Norr om Borg	SHM 21064	221586	Pyre Site	Cremation	Iron Age-Viking Age	1?	?	?	?	?	sheep/goat; cow; pig; uniden.	?	Has both burnt & unburnt bones

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Adelsö Björkö, Hemlanden Birka; Gr. 886	SHM 34000:Bj 886	579048	Chamber grave under stone setting	inhumation	Viking Age	1?	Some 10 bones from 1 or more paws from a smaller fur animal, possibly a cat.	?	?	?	N/A	iron/wood fittings; tinder-box frag; flint frag; textile frags (spiral silver braid/silver thread); iron objects; silver; 2 iron knives w/wood; 1 iron knife with silver & wood; 1 silver, bronze, wood bowl; iron/wood spike; 1 glass bead; iron round shield, shield bucket, r562; iron round shield handle with bronze inlay; 1 game board loop; 4 game board iron corner brackets; game board fittings, 25 turned game pieces of horn. 1 burned and 1 fitted with iron sticks; 4 iron nails; bronze/iron ring buckle; double-edged sword of iron, silver, bronze, wood; sword scabbard (iron, wood, textile); bipolar weight of iron/bronze; leather bag frag; iron/wood loop frag; 2 silver dirhams	Body sitting on a fur skin

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Adelsö Björkö, Norr om Borg Gr. 477	SHM 34000:Bj 477	148364	Cist Grave	Inhumation	Viking Age	1?	?	?	?	?	chicken, sheep/goat, cow, pig, uniden.	whetstone; iron/wood object; hair; bone/horn/bronze comb; iron knife; ceramic vessel; iron vessel; iron shield boss; iron/wood spikes; stone gaming piece; iron spearhead; iron/bronze ring brooch; textile; wood; loom weight	N/A
Up Adelsö Björkö, Norr om Borg Gr. 628	SHM 34000:Bj 628	147380	Chamber Grave	Inhumation	Viking Age	1?	?	?	?	?	pig; chicken; beaver?	iron/wood fitting; silver fitting; iron bridle; textile frag; iron/wood tang; bronze frag; iron frag; horse ice spikes; bone/horn comb; bone/horn/iron comb; iron knife; copper/wood/textile conglom; ceramic vessel; iron vessel; iron/wood vessel; iron arrowhead & shaft; 2 glass beads; 4 iron shield bosses; bronze ring buckle; gold wire	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Adelsö Hovgården 2:4 Hovgårdsberg Gr. 72	SHM 29702	622026	Round Stone Setting Grave	Cremation	Viking Age	1?	?	?	?	?	dog	quern stone of sandstone; 70 iron rivets/spikes; 15 glass beads & 6 glass bead frags; iron fitting; bone comb; ceramic vessel; whetstone; iron frag; iron object; bronze bead separator?; 2 iron cleats	N/A
Up Bro Lilla Ullevi Gr 5	RAÄ-nummer 40	?	Grave	Cremation	Viking Age	6 frags	?	?	M	Adult	horse, dog, cow, sheep, goose, chicken	?	N/A
Up Bro Lilla Ullevi Gr 8	RAÄ-nummer 40	?	Grave	Cremation	Viking Age	1	near complete skeleton	?	F	Adult (30-50yrs)	horse, dog, pig, cow	?	N/A
Up Bro Önsta Gr. A4	SHM 35572	?	Stone setting grave	Cremation	Viking Age	1?	axis vert; 1 metapodial (dist); PH 1	?	?	Adult	Dog, pig	iron rivets; iron horseshoe nail; iron objects; bronze rivet; bone comb	N/A
Up Ed Antuna 4:5 Antuna Gr. 2	SHM 34127 (F9:36)	337323; 337324; 337325; 337326; 337327	Round stone setting grave	Cremation	Viking Age	1?	?	?	?	?	Horse, pig, dog, rooster	iron thor's hammer ring; 2 thor's hammer ring pendants; iron object; slag; burnt clay; iron knife; 5 iron staples; iron bell; iron/bronze weight; whetstone; grav urn in situ; ceramic vessel; iron needle; bronze needle case; uniden. Object; iron fittings; 3 glass beads; 2 iron buckles; iron chain links; iron tacks; iron hinge; 60+ iron spikes; 2 iron rivets	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Ekerö Helgö, Gravfält 119 (tidigare gravfält 150)	SHM 27687; SHM 26943	?	Grave	Cremation	Iron Age	several	?	?	?	?	N/A	?	N/A
Up Adelsö Hovgården, Skopintull	SHM 16171	?	Mound grave	Cremation	Viking Age	1	?	?	M & F	Adults	dog, horse, bear, wolverine, marten, goshawk, eagle, pig, sheep, cow, chicken, goose, duck, cod	ceramics; iron nails; melted bronze frags; glass frags; uncharred spruce or pine needles; egg shell; iron fittings; gold fittings; bronze fittings; iron cleat; whetstone; gold thread & textile broaches; glass frags; textiles; bronze frags; gold thread; iron spear tip; hair; bronze pendant; bone/horn comb; bronze crampon; silver crampon; glass vessels; iron kettle; bronze bucket; bronze nails; iron nails; bronze escutcheon; bronze needle; glass beads; silver foil & carnelian beads; bronze ring; melted bronze; melted silver; bone/horn gaming pieces; bronze broaches; bronze clasp; bronze bowl	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Fresta Grimsta 100:4, Grav 3	RAÄ-nummer Fresta 83:3	?	Oval Mound grave	Cremation	Viking Age	1	?	?	M	Adult	Horse, dog, chicken, pig, wolf? Claw, sheep/goat	whetstone; comb; 3 Islamic silver coins; bronze weights; possible iron shield bracket; ceramics; thor's hammer ring; bent bronze needle; unburnt eggshell	N/A
UP Gamla Uppsala Högåsensgravfältet Gr. 83	SHM 23316	?	Mound Grave	Cremation	Viking Age	1	ulna, ph1, femur, talus, coccyx	?	?	Adult (35-64yrs)	N/A	Iron knife, bone combs, ceramics	N/A
Up Järfälla Barkarby flygfält, Ålsta Gr. 14	SHM 22145	606886	Round stone setting grave	Cremation	Viking Age	1?	?	?	?	?	Pig, sheep, dog	glass vessel frags (Egyptian lustered glass?); earthenware; iron plate; iron staple; 3 rivets; 10 spikes; frags of open iron ring w/thor's hammer pendant; 14 beads (glass, crystal, carnelian); 1 glass bead with silver; 2 small iron cleats; bone comb frags;	N/A
Up Järfälla Järvafältet Gr. 11	SHM 20327	606727	Mound grave	Cremation	Viking Age	1?	?	?	?	?	Horse, bird	iron shield buckle frag; iron chisel?; 16 rivets; 6 spikes; red glass bead; whetstone frag; nutshell; slag; earthenware	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Kalmar Viby 2:1 Viby Gr. 1	SHM 34810 (F4:10); (F4:21); (F4:25); (F4:26); (F4:32); (F4:33); (F4:35); (F4:36)	283742; 283743; 283744; 283745; 283746; 283747; 283748; 283749	Grave	Cremation	Viking Age	1-8?	?	?	M	Adult (35-64)	horse, dog, sheep/goat, cow, pig, eagle owl, goshawk, goose, chicken, lynx, bear; fish; rodent	2 burned ornate silver objects; silver/gold button; glass vessel	N/A
Up Lovö Söderby Gr. 37	SHM 36192 (F2)	1299318	Stone Setting grave	Cremation	Mixed (Bronze Age P. VI-1900s)	1?	?	?	?	?	Horse, dog, bear (VA)	bronze arm ring; mixed modern 1900s objects; iron fittings (VA); whetstone (VA); flint; bronze weather vane ornamented w/gripping animals (VA;Borre style); large bronze necklace (BA); bone comb (VA); iron knife (VA); ceramic vessel (VA); iron staples (VA); iron rivets (VA); bronze needle (BA); silver wire thread (VA); iron thor's hammer ring w/2 hammer pendants (VA); iron loop (VA)	N/A
Up Lovö Söderby Gr. 42	SHM 36192 (F1)	1299341	Mound grave	Cremation?	Mixed	1?	?	?	?	?	N/A	iron horse bridle (medieval -1500s); flint (VA); ceramic vessel (VA); boat rivets (VA)	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Lovö Söderby Gr. 60B	SHM 36192 (F8); (F9)	1299417; 1299426	Stone setting grave	Cremation	Viking Age	1-2?	?	?	?	?	Pig	iron fittings; iron crampon; ceramic vessel; iron rivet; 7 glass beads; cemented clay?; thor's hammer ring	N/A
Up Lovö Söderby Gr. 79	SHM 36192 (F3)	1299378	Stone setting grave	Cremation	Viking Age	1?	?	?	?	?	dog	flint flecks; quartz frags; hazelnut; ceramic vessel; iron rivet; glass bead; iron spikes; iron rod; iron thor's hammer ring w/4 hammer pendants	N/A
Up Lovö Lunda Gr. A112	SHM 32300 (F1)	430065	Round stone setting grave	Cremation?	Viking Age	1?	?	?	?	Child (7-9 yrs)	Rooster, hen	ceramic vessels; charcoal; bone comb; iron rivet frags; 1 red glass bead; 1 bronze object; 1 silver sheet/possible coin; decorated triangular bronze fitting	Burnt and unburnt bones together
Up Lovö Lunda Gr. A136	SHM 32300	?	Grave	?	Viking Age	1?	?	?	?	?	dog, horse, sheep/goat, cow, pig	comb; ceramics; iron pin; iron nail; bronze tweezers; iron awl; iron cleats; iron fitting	N/A
Up Lovö Lunda Gr. A137	SHM 32300	?	Grave	?	Viking Age	1?	?	?	?	?	Dog, sheep/goat	comb; ceramics; iron pin; iron nail; iron thor's hammer ring; iron cleats; iron fitting; glass bead; clasp; bronze chain; iron crampon; bronze frag	N/A
Up Norrsunda Brista Gr. 16/76	SHM 26042 (F16)	462598	Grave	Cremation	Migration - Viking Age	1?	?	?	?	?	dog, horse, goose	iron crampon?; iron rivets; iron nails; brown./red marbled glass bead; bone comb frag; potsherds	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Norrsunda Brista Gr. 54/63	SHM 26042	?	Grave	?	Migration - Viking Age	1	?	?	?	?	Dog, pig	?	N/A
Up Norrsunda Brista Gr. 56/101	SHM 26042 (F56)	462559	Grave	Cremation	Migration - Viking Age	1?	?	?	?	?	Dog, sheep/goat, cow	15 iron rivets; 19 iron spikes; bone comb frags; bronze & iron clasp; 1 yellow glass bead; 1 orange/yellowish green glass bead; whetstone; earthenware; wattle & daub	N/A
Up Norrsunda Brista Gr. 94/68	SHM 26042 (F94)	463326	Grave	Cremation	Migration - Viking Age	1?	?	?	?	?	Dog, cow, pig	bronze clamping buckle; bronze clasp; bronze sheet; bronze chain; bronze fitting; bronze rivet; 3 crystal beads; 2 carnelian beads; 1 dark blue glass bead; earthenware	N/A
Up Norrsunda Brista Gr. 98/112	SHM 26042 (F98)	462384	Grave	Cremation	Migration - Viking Age	1?	?	?	?	?	dog, sheep/goat, pig	bronze fitting; 33 iron rivets; 13 iron spikes; iron fitting; 2 iron cleats; potsherds; earthenware	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Norrsunda Brista Gr. 181/121	SHM 26042 (F181)	575340	Grave	Cremation	Migration - Viking Age	1?	?	?	?	?	Horse, dog	bronze pendant (spoon shaped); bronze bead; 2 bronze fittings; 2 iron weights; iron pendant?; 2 iron knife frags; 29 iron rivets; 10 iron spikes; bone comb frags; 8 glass beads; 8 glass bead frags; earthenware; potsherds; hazelnuts	N/A
Up Norrsunda Brista Gr. 183/133	SHM 26042 (F183)	575371	Grave	Cremation	Migration - Viking Age	1?	?	?	?	?	dog	bronze pendant; bronze mold?; bronze sheet; bronze spiral; 2 iron nails/rivets; iron sheet; bone comb frags; 8 glass beads; 1 half glass bead; potsherds	N/A
Up Norrsunda Brista Gr. 186/35	SHM 26042 (F186)	575256	Grave	Cremation	Migration - Viking Age	1?	?	?	?	?	horse, sheep/goat, pig, dog	iron ring (recent?); iron fitting; iron pin; whetstone; potsherds	N/A
Up Norrsunda Valsta Gr. 18	SHM 34069 (F250:7); (F255:7); (F256:7); (F259:1); (F262:9); (F247:2)	973342; 973344; 973345; 973347; 973348; 973349	Four sided stone setting grave	Cremation	Younger Iron Age	1?	fibula,mt 3, t4, ph 1, ulna, ph1; vert, caud, talus, ph1, ph2; tibia dx; t4 sin; t3 sin	?	?	?	N/A	?	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Östra Ryd Säby Gr. A10	SHM 31685 (F28)	22233	Round stone setting grave	Cremation	Iron Age	1?	?	?	?	?	N/A	iron rivet; charcoal; iron frag	N/A
Up Norrsunda Valsta Gr. 52	SHM 34069 (F792:28)	1091109	Round stone setting grave	Cremation?	Younger Iron Age	1?	calcaneus, 10 long bone frags?; 1 acetabulum frag?	?	?	?	N/A	?	Burnt cat; unknown if cremation
Up Östra Ryd Ullna Gr. 10-11	SHM 25848	617374	Grave field	?	Roman Iron - Viking Age	1?	?	?	?	?	N/A	iron frags; iron nails; pot sherds; flint frags; resin?; whetstone	Stone layer; Unknown; Unsure if burnt or unburnt, registered as both
Up Sigtuna Kvarteret Sankta Gertrud 3 Kvarteret Sankta Gertrud 3 Gr. 8	SHM 32761 (F502)	257245	Grave	Inhumation?	Viking Age - Medieval	1?	?	?	?	?	fish (6 types); eider; guillemot; chicken; great backed gull; geese	Seashell	Unburnt; not sure about this one; says it's a grave find
Up Skå Skå-Edeby, flygfältet Gr. 39	SHM 23304	465054	Round stone setting grave	Cremation	Roman Iron Age	1?	?	?	?	?	dog, bird, horse	iron thor's hammer ring frag	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Sollentuna Almvägen, Kvarteret Haken Gr. 3	SHM 34134 (F208:4); SHM 34134 (F210:13)	341716; 341719	Stone setting grave	Cremation	Viking Age	2	?	?	?	?	Dog, bird	iron rivets; iron spikes; ceramic vessel; iron knife; iron weight; iron needle; iron rod; 2 glass beads; bronze needle case; horn comb; grindstone; whetstone; flint frags	N/A
Up Sollentuna Almvägen, Kvarteret Haken Gr. 4	SHM 34134 (F145); (F168), (F131), (F144)	341725; 341727; 341723; 341724	Round stone setting grave	Cremation	Viking Age	4	?	?	?	?	Dog, pig, bird	iron rivets/spikes; iron washer; bronze ring; burnt clay; iron clasp; iron thor's hammer ring; 2 glass beads; horn comb; quartz frags	N/A
Up Sollentuna Almvägen, Kvarteret Haken Gr. 52	SHM 34134 (F332)	341829	Round stone setting grave	Cremation	Viking Age	1?	?	?	?	?	dog, horse, hen, bird	iron rivets; iron spikes; iron fitting/clamp?; iron object(knife?); iron rod; iron staple; iron horse shoe; iron thor's hammer pendant; iron knife; iron buckle; iron horse shoe nail; 5 glass beads; 2 crystal beads; 2 bronze needle cases; 2 horn combs; whetstone	N/A
Up Sollentuna Almvägen, Kvarteret Haken Gr. 59	SHM 34134 (F243:2); (F244:3); (F245:5); (F248)	341869; 341870; 341871; 341875	Stone setting grave	Cremation	Viking Age	4	?	?	?	?	N/A	steel; iron weight; iron clasp; iron rod; horn comb	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Sollentuna Almvägen, Kvarteret Haken Gr. 614	SHM 34134 (F450)	341889	Grave	Cremation?	Viking Age	1?	?	?	?	?	N/A	?	Burnt cat
Up Sollentuna Almvägen, Kvarteret Haken Gr. 65	SHM 34134 (F109:9)	341886	Grave	Cremation	Viking Age	1?	?	?	?	?	N/A	iron clasp; iron rod; iron spikes; crystal bead; 4 blue glass beads; horn comb	N/A
Up Sollentuna Häggvik Häggviksleden Gr. 5	SHM 35008 (F24:12)	358031	Grave	Cremation	Vendel – Viking Age	1?	?	?	?	?	Dog, hen, unident.	?	N/A
Up Sollentuna Knista, Hammaren Gr. 178	SHM 24152	611571	Cairn Grave	Cremation	Younger Iron Age	1?	?	?	?	?	rooster, cow, pig, bird	iron thor's hammer ring?; iron staple; iron frags; bone & bronze comb; whetstone	N/A
Up Sollentuna Rotsunda, Kvarteret Ruletten Gr. A6	SHM 34103	853729	Grave	Cremation	Viking Age	1?	?	?	?	?	Horse, dog, sheep	bronze needle case; blue glass bead; 2 black & white glass beads; glass bead; bronze/iron weight; ceramic grave urn; iron frags; 2 iron horseshoe nails; iron fitting; iron rivets; iron nails	N/A
Up Sollentuna Tors backe Gr. 111	SHM 34137 (F176:4)	322649	Grave	Cremation	Viking Age	1?	?	?	?	?	Horse, dog, unident.	?	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Sollentuna Tureberg Gr. 2	SHM 34351 (F159)	302871	Round stone setting grave	Inhumation	Viking Age	1?	?	?	?	?	dog	ringed iron fitting; iron knife w/wooden shaft; glass/gold foil bead; bronze buckle; wood for coffin nails; iron coffin nails; bag w/content: coins, needle case	N/A
Up Sollentuna Viby gård Gr. 4	SHM 33568 (F22:6)	259291	Stone setting grave	Cremation	Viking Age	1?	?	?	?	?	Chicken, unident.	iron rod	N/A
Up Sollentuna Tureberg Gr. 8	SHM 29783 (F48)	236467	Oval mound grave	Cremation	Viking Age	1?	?	?	?	?	N/A	bronze chain holder; 5 bronze pendants; iron thor's hammer ring; iron fitting; iron staple; 35 iron rivets/spikes; 38 glass gold/silver foiled beads; bone comb; potsherds of vessel	N/A
Up Solna Hedvigsdal Gr. 7	SHM 34261 (F5)	314604	Grave	Cremation	Viking Age	1?	?	?	?	?	dog, pig, bird, uniden	iron spikes/rivets; whetstone; ceramic vessel; organic object; bone/horn/bronze comb; red glass bead	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Solna Hedvigsdal Gr. 2	SHM 34261 (F11)	314670	Irregular stone setting	Cremation	Viking Age	1?	?	?	?	?	horse; dog; sheep/goat; bird	round bronze brooch w/animal figures; round gold pendant; burnt carnelian bead or sigil seal with deer & twig motif; gold finger ring w/bronze axe pendant; whetstone; ceramic vessel; wattle & daub; 2 bone/horn combs; 14 iron rivets; 26 iron spikes; 352 glass & bronze beads; 3 bronze rings; silver finger ring; silver/bronze brooch frag; gold pendant frags; 2 bronze bead spacers; bronze sheet; copper/garnet drinking horn frags; 16 bronze loops; 8 bronze rings: copper/garnet pendant; bronze fitting; 2 glass/gold foil/bronze bead pendants; 2 carnelian/silver pendants; 2 glass/bronze pendants; 3 copper rings; copper/charcoal object; ornamented bronze fitting; bronze hook; bronze finger ring; pendant in silver-plated bronze w/animal ornaments in carved section on one side	N/A
Up Solna Huvudsta Gr. 2	SHM 28382 (F2)	463120	Rectangular stone setting	Cremation	Younger Iron Age	1?	?	?	?	?	dog	iron spike/crampon?; iron fitting; earthenware	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Solna Huvudsta Gr. 6	SHM 28382 (F6)	463133	Mound Grave	Cremation	Younger Iron Age	1?	?	?	?	?	dog	iron rivets and nails; burnt clay	N/A
Up Spånga Årvinge Gr. 158	RAÄ Spånga 221:1	?	Grave	?	Migration - Viking Age	2?	?	?	?	?	Dog, sheep/goat	?	N/A
Up Spånga Beckomberga/ Båtmanstorp	?	?	Grave	?	Migration - Viking Age	1?	?	?	?	?	N/A	?	N/A
Up Spånga Granby	?	?	Grave	?	No Date	1?	?	?	?	?	N/A	?	N/A
Up Spånga Tensta	?	?	Grave	?	Migration - Viking Age	1?	?	?	?	?	N/A	?	N/A
Up Spånga Tensta Gr. 14	?	?	Grave	?	Viking Age	1?	?	?	?	?	dog, horse, pig, chicken	?	N/A
Up Stockholm Brännkyrka Berga	RAÄ Brännkyrka 103:1	?	Grave	?	Viking Age	4?	?	?	?	?	dog, horse, sheep/goat, cow, pig, chicken	?	N/A
Up Stockholm Spånga, Rinkeby Gr. 5	SHM 31138	?	Rounded mound grave	Cremation?	Vendel (600s)	2	?	?	M & ?	Adult (M) & Infant	horse, dog, cow, sheep/goat, pig, eagle owl, goshawk, goose, chicken, dove,	3 bronze fittings w/iron rivets; 20 bronze fittings; iron hook-like object; 100 iron nails/spikes; glass vessel; 3 glass beads; ~50 bone gaming pieces; bone comb; potsherds; burnt clay; loom weight frag; slag; wood; charcoal	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Sundbyberg Rissne Gr. 2	SHM 34762 (F2); SHM 34762 (F3)	302275; 302276	Stone setting grave	Cremation	Viking Age	2?	?	?	?	?	dog, horse, sheep, pig, goshawk	2 silver foil glass beads; 3 gold foil glass beads; copper fitting; 4 copper buttons; 65 iron rivets/spikes; 28 iron fittings; iron staple; iron object; crystal bead; 2 glass beads; 1 jet gaming piece/counter; 1 glass gaming piece/counter; 2 or 3 horn combs; bone object; ceramic vessel; burnt clay; whetstone; iron cauldron; iron thor's hammer ring (4 hammer pendants); thor's hammer ring; stone cauldron lid; iron vessel	N/A
Up Täby Arninge Gr. 4	SHM 34083 (F31)	302666	Round stone setting grave	Cremation	Viking Age	1?	?	?	?	?	N/A	copper side bracket; copper staple; 29 bone gaming pieces/counters; garnet frags; iron shoe crampon?; iron rivets/spikes; 28 iron frags; iron bracket; possible melted bead (slag); ceramic vessel frags; iron hook; iron frag/fitting; iron "wing-nut" flat bracket; iron knife; burnt clay	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Täby Arninge Gr. 3	SHM 34083 (F19); (F29); (F30)	302383; 302649; 302656	Stone setting grave	Cremation	Viking Age	2	?	?	1F, 3M, 1U	18-44(1F, 2M, 1U); 35-64 (1M)	horse, dog, sheep/goat, cow, pig, eagle owl, goshawk, goose, duck, chicken, fish, lynx	Gold fragment with filigree; ceramic vessel frags; garnet disc?; copper/garnet backrest button?; copper button w/pin; copper chain (6 links that are three-wire and open); copper casted fitting; 2 copper casted strap breakers?; bronze ring (may have been larger ring or pendant with animal headdresses in Style II); decorated bronze footplate of a backrest clasp/buckle?; copper ring; 6 copper washers; bronze molded & twisted hook; Pendant of twisted bronze wire and glass bead (bead is melted); copper/tin eyelet; 46 frags of bronze fittings; 23 rectangular copper fittings; 1 copper corner fitting; copper pin; copper plate/sheet; copper/iron slag; iron knife; 2+ bone/horn combs; 110 glass beads; 33 glass gold foil beads; 29 glass silver foil beads; Bones and teeth with the molten bronze; copper comb rivet; Bronze wire in the form of a pendant w/a bead; 20 bronze rings?; cylinder copper plate; iron spikes; iron tacks; bone object; bronze chain links; 2 iron buttons; 2 iron knives; 2 iron shoe cleats?; iron buckles; iron tweezer; iron loop; iron pin; iron rivets; iron spikes; iron fastener; iron comb rivets?; gold jewelry frags; silver needle/ingot?; flint frags; shells; oven wall frag; quern stone	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Täby Arninge Gr. 19	SHM 34083 (F254)	324567	Stone setting grave	Cremation	Vendel	1?	?	?	?	?	chicken, dog, sheep/goat	gold finger ring (child's?); 2 textile imprints; iron knife; copper ferrule; copper ring; copper scales frags; copper frags; 2 iron buckles; iron frags; iron rivet; loom weight; 2 gold spiral beads; grindstone; 2 bone/horn/iron combs; ceramic vessel; copper sheet; hazelnut shell; 38 glass beads; copper neck ring; 4 copper beads	N/A
Up Täby Karby 2:1 Karby Gr. 200261	SHM 35059 (F30001)	1102030	Grave	?	Iron Age	1?	?	?	?	?	bird; dog	?	N/A
Up Täby Karby 2:1 Karby Gr. 200272	SHM 35059 (F200272)	1102038	Grave	?	Iron Age	1?	?	?	?	?	bird; dog; chicken	?	N/A
Up Täby Gribbylund Gr. 35b	SHM 34125 (F16)	321212	Stone setting grave	Cremation	Viking Age	1?	?	?	?	?	N/A	charcoal; horn comb w/bronze rivets; iron thor's hammer ring; lead weight; bronze/iron tweezer; ceramic vessel; iron object	N/A
Up Täby Tibble Gr. 37	SHM 35268	1141484	Mound grave	Cremation	Viking Age	2	pelvis and femur; adult; calcaneus & extremities	?	M/M	Adults (40-60; 20-40yrs)	Horse, dog	flint; bronze fitting; bronze object; iron crampon; nails; rivet; iron frag; glass beads; ceramics; 2 iron thor's hammer rings	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Täby Tibble Gr. 131	SHM 35268 (F5889)	1141495	Stone setting grave	Cremation	Viking Age	2?	distal tibia, fixed epiphysis; diaphysis frags	?	?	Adult (20-40 yrs)	Horse, hen	ceramics; rivets; iron thor's hammer ring; iron tacks; iron pins; iron crampons; bone comb	Unburnt cat, burnt human
Up Täby Viggbyholm Gr. 4	SHM 22960	786439	Cairn grave	Cremation	Viking Age	1?	?	?	?	?	Dog, bird	earthenware; 12 iron rivets; 2 iron spikes; horn bird figurine; 2 small frags of decorated bone; 8 bone comb frags; 5 game pieces	N/A
Up Täby Viggbyholm, Hultinparken Gr. 19	SHM 25915 (F1)	809352	Round stone setting grave	Mix	Migration – Viking Age	1?	?	?	?	?	Bear claw	iron knife; bone comb frag	N/A
Up Uppsala Dragarbrunn 29:3 Kvarteret Kroken	SHM 33914 (F906)	305028	Grave	Inhumation?	Medieval	1?	?	?	?	?	Fish, bird	iron cleats?	Unburnt cat
Up Uppsala Dragarbrunn 29:3 Kvarteret Kroken B	SHM 33914	345003	Grave	?	Medieval	1?	?	?	?	?	fish, bird, dog, small animal	?	N/A
Up Uppsala Gamla Uppsala Berget Gr. 24360	Fornlämning 614:1, Uppsala Gamla Uppsala 21:52	?	Irregular Stone Setting Grave	Cremation	Older Bronze – Roman Iron Age	1	proximal radius	?	M	Adult	N/A	ceramic vessel frags; burnt clay	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Up Vaksala Inhåleskullen Grave 700	RAÄ-nummer 155:1	?	Stone setting grave	Cremation	Vendel	1	?	?	F	Adult (20-30 yrs)	bird, sheep/goat, dog, horse, chicken, cow, pig	flint; slate; orange glass bead; resin; charred birch bark; bone comb frag; ceramics; four copper fittings with rivet holes; a small copper ring (possible chain link); copper plate w/pin; frags of a helmet; frag of sword sheath; copper rivets; ornamental rivet; nails; frag of silver fitting w/animal ornamentation	N/A
Up Vaksala Inhåleskullen Grave 1408 FU	RAÄ-nummer 155:1	?	Stone setting grave	Cremation	Vendel	1?	?	?	F	Adult (18-44 yrs)	sheep/goat, fish, pig	ceramics	N/A
Up Vallentuna Rickeby Gr. 27b	SHM 34558	?	Round stone setting grave	?	Vendel (600s AD)	4	?	?	M	Adult (35-64 yrs)	horse, dog, sheep/goat, cow, pig, eagle owl, falcon, goshawk, sparrowhawk, goose, chicken, black grouse, hazel grouse, crane	bread?; ceramic vessel?; bone dice?	N/A
Up Vallentuna Väsby 1:1 Väsby Gr. A9	SHM 31461 (F105)	30035	Round stone setting grave	Cremation	Iron Age	1?	?	?	?	Child	Dog, bird	iron rivet/spike; 2 ceramic vessels; whetstone; flint; bone comb	N/A
Up Vendel Husby, Ottarshögen Gr. 1	SHM 32326	?	Mound grave	?	Migration Age (400s AD)	1	?	?	1F/1M	Adults	Dog, sheep/goat, pig, goose, bear claws	bronze fitting; silver sheet; 3 bronze objects; bone comb; ceramic vessel; wattle & daub; charcoal; seed	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Vg Brunnhem Brunnhem, Broholm Gr. A1	SHM 30429 (F3)	30593	Grave	Inhumation	Iron Age	1?	mandibles	Rodent gnawing	?	?	N/A	?	N/A
Vg Gudhem Jettene by, Rumpegården Gr. 1	SHM 20471	731829	Grave field	Inhumation	Iron Age	1?	?	?	F	?	Pig, sheep/goat	bronze nail; iron knife?; horn comb; resin?; sandstone object; burnt clay	Adult cat & a kitten
Vg Varnhem Överbo	SHM 8058	1089363	Grave	Inhumation	Roman Iron Age (AD 200s?)	2	skull, extremities, vertebra	?	?	?	Dog, horse, sheep/goat, cow, pig	silver hook; gold pendant; bronze needle; 2 glass beads; bronze finger ring; 1 bronze clasp; another 2 bronze clasps fused together	N/A
Vr By Säffle stad, Sund Gr. 4	SHM 26781 (F236)	228968	Mound Grave	Cremation	Younger Iron Age	1?	?	?	?	?	horse; dog; pig; sheep/goat; red squirrel; unident	bronze buckle; iron object; iron rivet; glass & carnelian beads; loom weight; burnt clay; flint frags	unburnt cat, burnt human
Vr By Säffle stad, Sund Gr. 24	SHM 26781 (F9)	228987	Grave	Cremation	Younger Iron Age	1?	?	?	?	?	bird; horse; dog; uniden	?	N/A
Vs Irsta Råmarbo	RAÄ Irsta 508	?	Grave	Cremation?	Vendel – Viking Age	1?	skull; feet; tail	?	F	Adult (18-64 yrs)	dog, horse, pig, bird, sheep/goat	ceramic vessel; 13 beads (rock crystal & glass); bone comb; 4 iron rivets; iron hook; iron frags	N/A
Vs Köping Ströbohög Gr. 20	SHM 21554	636005	Grave	Cremation	Viking Age	1?	?	?	?	?	N/A	severely burned unknown objects	N/A
Vs Rytterne Horn Gr. A5	SHM 16757	430622	Grave field	Cremation	Vendel – Viking Age	1?	?	?	?	?	Horse; dog	ceramic vessel; charcoal; iron rivet; iron spike; iron handle; 3 iron crampons?; iron key; horn comb	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Vs Västerås Bjurhovda, Kv Birka Gr. 10	possibly SHM 35794/RAÄ Västerås 459:1	?	Grave	?	Viking Age (AD 1000)	1?	?	?	?	?	Dog	comb; ceramics; glass bead; gold foil bead; needle case; chain w/small attachment; bronze arm band; various small decorations	N/A
Vs Västerås Bjurhovda, Kv Birka Gr. 10b	possibly SHM 35794/RAÄ Västerås 459:1	?	Grave	?	Viking Age	1?	?	?	?	?	Dog	lance tip	N/A
Vs Västerås Bjurhovda, Kv Birka Gr. 39	possibly SHM 35794/RAÄ Västerås 459:1	?	Grave	?	Viking Age (AD 1000)	1?	?	?	?	?	N/A	ceramics; bronze ring; various small decorations	N/A
Vs Västerås Bjurhovda, Kv Birka Gr. 44	possibly SHM 35794/RAÄ Västerås 459:1	?	Grave	?	Viking Age	1?	?	?	?	?	N/A	comb; glass bead; iron frags	N/A
Vs Västerås Bjurhovda, Kv Birka Gr. 84	possibly SHM 35794/RAÄ Västerås 459:1	?	Grave	?	Viking Age (AD 1000)	1?	?	?	?	?	dog, horse	ceramics; cleats; glass bead; belt/strap; hook; iron frags	N/A
Vs Västerås, Tuna Gr. 33	probablyy SHM 31631	?	Grave	?	Viking Age	1?	?	?	?	?	Dog	?	N/A
Vs Västerås, Tuna Gr. 37	probablyy SHM 31631	?	Grave	?	Viking Age	1?	?	?	?	?	N/A	?	N/A
Vs Västerås, Tuna Gr. 59	probablyy SHM 31631	?	Grave	?	Viking Age	1?	?	?	?	?	Dog, horse	?	N/A
Go Fröjel Sälle-Vallhagar, House 16	(SHM 32427); RAÄ-nummer Fröjel 31:1	?	Foundation Deposit at a settlement	NA	Pre-Roman Iron Age to Migration	1	Full skeleton	?	N/A	N/A	?	?	N/A

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Öl Vickleby Vickleby, House A35	RAÄ Vickleby 126:1	?	Foundation Deposit at a settlement	N/A	Viking Age	1	Full skeleton	?	N/A	N/A	?	?	Young adult cat
Sk Malmö, Bunkeflo	?	?	Foundation Deposit at a settlement	N/A	Viking Age/early Medieval	1	skull	?	N/A	N/A	?	?	N/A
Öl Koping (A:!) Hasselby	SHM -99 (F238)	778690	Foundation Deposit at a settlement	N/A	Pre-Roman Iron Age to Vendel	1?	?	?	N/A	N/A	?	?	N/A
Sk Skurup Kallsjö torvmosse, Hassle Bösarp	(SHM 13169)	?	Bog Votive	N/A	Migration-Viking Age (AD 330-750)	1	?	?	?	?	?	?	2 humans present
Öl Gärdslösa Skedemosse	RAÄ-nummer: Gärdslösa 171:1	?	Bog Votive	N/A	Roman Iron Age-Migration Period (AD 200-450/500)	2	?	?	?	?	?	?	38 humans present
Ög Borg Borgs säteri	RAÄ Borg 276:1; SHM 33910 (F3141); (F3340); (F3394); (F3437); (F3536); (F3538); (F3569); (F3574); (F3577); (F3696); (F3747); (F3779); (F3067)	404175; 404371; 404425; 404468; 404572; 404574; 404605; 404610; 404613; 404738; 404792; 404826; 860226	Cult House	N/A	Viking Age	?	?	?	?	?	cow, horse, pig, sheep/goat, dog, fish, beaver	amulet rings	Unburnt cat bones

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
SK Uppåkra Uppåkra	SHM 8868:24?; RAÄ Sigtuna 191:1	413989?	Cult House	N/A	Migration Age (c..AD 500)	1	mandible	?	N/A	N/A	Bird, fish, cow, sheep / goat, horse, dog, seal, red deer, roe deer	N/A	N/A
UP Gamla Uppsala	Uppsala 490:1, Valsätra 1:9	?	Cult House	N/A	Viking Age (c. AD 1000	?	?	?	??	?	horse, cow, pig, ram, dog, rooster	N/A	Unburnt bones; humans present
Vg Sankt Peder Gamla Lödöse	232987; 232988; 232989; 232990; 232991; 232992; 232996	RAÄ Sankt Peder 23:1; SHM 27600 (FAI2332); (FAI2441); (FAI2381); (FAI2398); (FAI2392); (FAI2530); (FAI2541)	Cat Fur Production	N/A	Medieval	many	various	Y	N/A	N/A	N/A	N/A	Fur Production Pit
Up Sigtuna Sigtuna	413989?	SHM 8868:24?; RAÄ Sigtuna 191:1	Cat Fur Production	N/A	Viking Age/Medieval	many	various	Y	N/A	N/A	N/A	N/A	Fur Production Pit

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
Ög Västra Tollstad Broby, Alvastra pålbyggnad	SHM 14272:F6:c; H5:b; D1:a; D1:b; D3:d; D6: c; E1:b; E1:c; E4:c; E5:a; F3:b; BIV:c; CV:b; SHM 3498:X219/Y425; X220/Y425; X220/Y423; X221/Y424; X222/Y424; X223/Y423; X224/Y424; X225/Y417; X234/Y407; X228/Y407; X227/Y407; X225/Y416; X229/Y407	1221592; 1221723; 1220948; 1220952; 1220982; 1221011; 1221172; 1221209; 1221308; 1221314; 1221351; 1220749; 1220796; 883008; 883125; 883142; 883145; 883147; 883258; 883339; 883446; 883502; 883825; 884123; 884169; 884204; 884225; 884228; 884403; 884456	Wildcat Fur Production	N/A	Middle Neolithic	2-4 wildcats	skull, mandible, teeth, metapodials, 1 phalanx, vert, scapula, forearms, lower hindlegs	Y	N/A	N/A	N/A	N/A	at a Stone Age Pile Dwelling
Sk Stehag Ringsjöns utlopp	SHM 31172	240793	burial of a wild cat	N/A	Stone Age	1	Full skeleton	N	N/A	N/A	N/A	N/A	Wildcat was covered with red ochre & was unburnt

Site Name	Site Code	Bone Num.	Context	Cremation/ Inhumation	Time Period	# of Cats	Type of Cat Bones	Cut Marks	M/F Human	Age of Human(s)	Other Animals Present	Artifacts Present	Notes
UP Ekero Helgo, cemetery 116, Gr. 6	?	?	Burial of a cat in place of a woman	N/A	Migration - Viking Age	1	Full skeleton	?	N/A	N/A	N/A	Female associated grave goods such as beads	No human body present, but found in a human cemetery; cats are relatively common grave goods in this cemetery but specific data is not known

APPENDIX H

ICELANDIC SITES WITH QUARTZ OR WHITE STONES

Site Name	Context	Artifact Num.	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	Solveig Beck Analysis	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Selfoss, Árnessýsla; Grave 1	Grave	1958: 39-44 (42-43)	inhumation	Viking Age	2	white: 1.2x1.0x 0.5cm1.43g gray: 2.2x1.8x 1.2cm 7.28g	white calcite; gray quartz	white w/hole might be a bead, most likely calcite; gray is most likely quartz (pitting on outside, & tiny quartz crystals on inside, amygdale, very faint gray & whitish gray banding near inside crystals)	1F?	?	N/A	iron frags	Skeleton probably lying on its back

Site Name	Context	Artifact Num.	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	Solveig Beck Analysis	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Vatnsdalur; Barðastrandarsýsla; Grave 1	Boat Grave	1964: 113	inhumation	Viking Age	1	2.3cm	brownish light gray calcite/ zeolite ?	roughly drop shaped with a hole through the middle; At Sarpur Þór Magnússon is quoted and he names it kalkspat/calcite, he does not mention if there was a geologist who looked at it but it could well also be a zeolite, at least from the photo, it is an amygdale for sure and possibly waterworn but where it came from is unclear. Book: Þór Magnússon. He feels sure it was part of the grave goods. Á minjaslóð. Reykjavík, 2007: bls. 48 - 71. Photo on Sarpur	2F; 4M; 1U	F:18-25 &36-45; M:13-17, 18-25, 26-35, 36-45; U:13-17	Dog	30 glass beads; silver Thor's hammer; bronze bell; frag of a silver-plated Cufic coin (a dirhem, prob. C. AD 870-930); bronze pendant; bronze chain; bronze pin; small piece of lead with inlaid cross; 2 bronze arm-rings; bronze finger ring; 2 bone combs & frag of a 3rd; frags of a comb case; 14 lead weights; small wooden pin; iron knife; round perforated piece of bone; bronze frag; iron frags	possibly originally belonged to a woman and the others were added later; on display in National Museum

Site Name	Context	Artifact Num.	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	Solveig Beck Analysis	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Silastaðir; Eyjafjarðarsýsla; Grave 3	Stone Setting	13733	inhumation	Viking Age	3	zeolite: 3.8x2.4x 1.2cm18. 40g; calcite frag A: 2.4x2.4x 2.2cm 12.75g; calcite frag. B: 1.7x1.2x 1.1cm 1.83g	1 white zeolite; 2 light brown calcites	1 is zeolite (scolecite, it is stripey like a seashell); 2 are some form of chemical sediment, maybe calcite (formed in geothermal heat)	F?	Elderly?	N/A	6 glass beads; 1 "sparkly" bead; 1 stone bead; iron knife; iron clasp; iron frags	grave covered with stones; the skeletal remains were from an elderly woman, but little preserved, except the head resting on the right cheek
Silastaðir; Eyjafjarðarsýsla; Grave 4	Stone Setting	13744	inhumation	Viking Age	1	?	Semi-clear; Could be quartz	Strongly spherical; Note in Kuml og haugfé, likely amygdale, p. 181. photo on Sarpur.is, Cannot make out the type, light gray, it is likely an amygdale	M	Young adult	Horse	sword; axe; shield-boss; spearhead; knife; 2 lead weights; jasper; bridle-bit; buckle; iron nails; iron frags	Stone is lost

Site Name	Context	Artifact Num.	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	Solveig Beck Analysis	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Syðri-Bakki (Kumlholt); Eyjafjarðarsýsla	Grave	KUM06-02	inhumation	Viking Age	2	Onyx: 2.5x1.6cm, 5.36g; Quartz: 0.7x0.5cm, 0.38g	1 white onyx, 1 white/ yellow quartz	One flake, onyx, faint horizontal lamination of translucent and white quartz, angular but slightly worn amygdale fragment; One tiny pebble, well waterworn, drop shaped, very pitted, likely mostly opaque white quartz, most likely just originated from the natural soil	?	Adult	N/A	iron nails; iron frags	N/A
Dysnes 2017; Eyjafjarðarsýsla; Gr. 122	Chamber Mound	DYS2017-14-1058	inhumation	Viking Age	1	2 cm long x 1 cm, 3-4 mm; 3g.	Gray, white, brown quartz	micro-crystalline quartz amygdale, like a toenail, glassy luster, translucent grey, white and caramel brown in colour, partially laminated, 1-2 mm thick layers, most edges rounded and smooth, likely waterworn	only teeth found	only teeth found	Horse	silver finger ring; flint; iron nails (coffin?); wood (coffin?)	Found in the fill of a possible post setting to the north of Gr. 122; grave was reopened at least twice

Site Name	Context	Artifact Num.	Cremation/ Inhumation	Time Period	Count	Size & Weigh t	Type	Solveig Beck Analysis	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Dysnes 2017; Eyjafja rðarsýs la; Gr. 127	Chamber Mound	DYS201 7-14-144; DYS201 7-14-988	inhumation	Viking Age	2	144: 2x1.6c m, 1.5cm, 7g; 988: 2x1.5c m, 1.2cm, 2g	Gray quartz	2017-14-144, waterworn micro-crystalline quartz amygdale, resembles the tip of a finger, rounded pebble with naturally pitted surface, one flat and smooth side where it has broken but later worn, radiating lines/ridges out from center of the pebble visible in the fracture, glassy luster, all surfaces worn, semi-translucent gray with an orange tint, 7 gr, 2x1,6 cm, 1,5 cm thick. 2017-14-988, 2x1,5 cm, 1,2 cm thick, 2 gr, very thinly laminated, opaque, 1-2 mm thick laminations, white and brownish light gray layers, matted luster, angular flake, seven fairly flat surfaces, most seem fresh breaks, only one seems a smoother naturally worn surface, likely an amygdale fragment, scratches glass, likely microcrystalline quartz.	M	>30 years ,Adult	Horse	iron sword; iron shield boss; wooden shield; iron nails; wood from chamber; jasper; 2 whetstones	redeposited skull and vert; wooden chamber grave covered by turf; shield placed face down on top of redeposited skull

Site Name	Context	Artifact Num.	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	Solveig Beck Analysis	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Ytra-Garðshorn; Eyjafjarðarsýsla; Grave 3	Stone Setting	1958: 65	inhumation	Viking Age	1	1.3 cm according to Sarpur	Quartz/ Zeolite ?	Milky white, according to Sarpur, no photo; rounded; hnöttóttur smásteinn, rounded pebble,	?	?	Horse	2 glass beads; knife; strike-a-light; iron shears; iron frags; charcoal	Stone is lost; Grave covered with a layer of stones
Ytra-Garðshorn; Eyjafjarðarsýsla; Grave 9	Stone Setting	1958: 93	inhumation	Viking Age	57	Total Weight: 74.91g, Av. Weight: 1.44g	3 white onyx; 2 striped white quartz (possibly chalcedony); 52 quartz	3 onyx stones (largest; have stripes; jagged so most likely picked up); 1 dark brown quartz, most likely jasper; 1 white quartz partially striped like onyx (rounded, water-worn); 1 orangeish-brown & white striped quartz, possibly chalcedony; the rest (52) are most likely quartz, a few have stripes like onyx, they are rounded, small & waterworn	F?	Middle-Aged	Horse	23 glass beads; 1 amber bead; 1 silver wire bead; bronze ring; iron tweezers; piece of wax; piece of very dark brown quartz	Disturbed grave; covered by a layer of stones

Site Name	Context	Artifact Num.	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	Solveig Beck Analysis	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Ytra-Garðshorn; Eyjafjarðarsýsla; Grave 10	Grave	1958: 101	inhumation	Viking Age	1	1.3x1.3x 0.8cm4.0 4g	White quartz	quartz pebble, waterworn	?	?	Horse	4 beads; comb frags; iron frags	Disturbed grave; horse skeleton found in NE end w/2 buckles & 5 rivets
Hafurbjarnarstaðir; Gullbringusýsla; Grave 1	Stone Setting	13669-70	inhumation	Viking Age	2	13669: 3,7x2,5 cm; 13670: 4x2,7 cm according to Sarpur	1 dark gray; 1 white w/ dark spots;	13669 could be black quartz; 13670, from photo on Sarpur, likely a zeolite amygdale, hints of a crystal shape.	F	40	N/A	whalebone plaque; ringed pin; trefoil brooch; knife; comb; 3 shells; iron frags	Grave covered with layer of stones; body resting on its right side,; upper part of the body covered with a large stone slab; lower part of the body covered with a whalebone plaque; stones on display in National Museum
Straumur; Norður-Múlasýsla; Grave 1	Boat grave?	15230-33	inhumation	Viking Age	2	0.5x0.4x 0.3cm 0.28g; 0.5x0.4x 0.15 cm, 0.20g	White zeolite or calcite	Maybe zeolite or calcite, not quartz, too small to tell, no identifying features, fairly smooth, one is pitted	M?	7-12 years	N/A	small axe; lead weight; knife; 30 boat rivets; piece of copper	lying on right side, slightly flexed, left foot placed on top of the right foot; possible boat burial (remains of boat wood)

Site Name	Context	Artifact Num.	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	Solveig Beck Analysis	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Ketilsstaðir; Norður-Múlasýsla	Grave	12444	inhumation	Viking Age	1	?		Could be a quartz mineral but impossible to say, could be Icelandic, could be foreign.	F	Young Adult	N/A	2 oval brooches; bronze trefoil brooch; 40 whole beads; some bead frags; textile remains; soapstone spindle-whorl; bone frags from possible comb; 2 whetstones; iron shears	Burial appears to have been surrounded by a low circular wall c. 18.5m in diameter; skeleton poorly preserved, lying on its left side, slightly flexed; stone on display in National Museum
Karlsnes; Rangárvallasýsla	Grave	11360/1932-68	inhumation	Viking Age	1	1.8x 0.6cm	Clear Icelandic spar, More likely to be quartz	This looks more like a quartz flake/rock crystal to me from the photo	M	36-45	N/A	spearhead; 2 lead weights; 3 beads; knife	eroded; supine; right foot on top of the left; left arm under the back
Austarihóll; Skagafjarðarsýsla	Grave	1964: 265	Inhumation	Viking Age	1	1.9x1.6x 1.4cm6.08g	White zeolite	zeolite (possibly amygdale)	?	?	Horse	iron spearhead; 5 arrowheads; iron shears; lead spindle-whorl; frag of possible bone comb; iron horse crampon; iron nail; iron frag; iron plate; charcoal; 4 flint strike-a-lites; Icelandic brown opal; very dark brown quartz or jasper	human remains missing; revealed by road construction

Site Name	Context	Artifact Num.	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	Solveig Beck Analysis	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Kornhóll; Vestmanna eyjar; Grave 2	Grave	1992: ? (1992-69-4)	Inhumation	Viking Age	1	3.0x2.4x 1.5cm 14.03g	Light brown opal	conchoidal fracture; quartz, most likely opal	F	?	N/A	Twisted wire arm-ring (cu and possibly silver); frags of scissors?; bone comb frags; 2 flint; iron frags	possible grave field
Geirastaðir (Kumlabrekka); Suður-Þingeyjarsýsla; T1-2014	robbed frost crack next to boat burial	KBR14-01	?	Viking Age/Medieval	1	2.0x1.0cm 4.6g	White quartz	Quartz amygdale, waterworn, silky smooth translucent gray, faintly pitted naturally	?	?	?	?	Stone found in backfill of frost crack that was opened up in the middle ages; frost crack next to a large boat grave from the Viking Age

Site Name	Context	Artifact Num.	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	Solveig Beck Analysis	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Hofstaðir Medieval Christian Cemetery, Suður-Þingeyjarsýsla, Gr. 104X	Christian grave in cemetery	HST10-HSMX104-38	inhumation	Early Medieval	2	Gray: 1.5x.08cm, 2.82g White: 1.3x.07cm, 2.64g	1 gray quartz, 1 white quartz	Two quartz amygdales, one translucent gray, one opaque white, waterworn and silky smooth with a few indentations, likely manuports	M/F	?	N/A	N/A	2 skulls, (104X) was in the skeleton's lap. Neither of the skulls belong, as the skull that was found in the proper position does not belong to that skeleton. The skull in the lap might be the original skull for the skeleton. It could also be from the nearby Grave 113, which is missing its skull. The 104A skeleton is genetically female while the 104X skull is male. The male skull (104X) in the lap had two quartz pebbles in its mouth

APPENDIX I

DANISH SITES WITH QUARTZ OR WHITE STONES

Site Name	Site Code	System Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Allinge-Sandvig, Bornholm	060101-231	191297	Dolmen/Stone Setting Grave	?	1700BC- AD 749	2	?	White & gray quartzite	?	?	?	?	Stone circle, about 5m in diameter w/at least 12 stones of which one is white quartzite; a light gray quartzite of exquisite shape may have stood on a low cairn in the center of the stone setting
Addit, Horsens, Midtjylland	160406-72	52503	Round Mound/Stone Packing Grave	?	Stone Age (3950BC - 501BC)	1	?	quartzite	?	?	?	a hatchet, a thin blade flint ax and two pierced amber discs	Labeled as a strike-a-lite; quartz found on top of the mound
Essenbækgaard, Randers, Midtjylland	141002-10	47425	Oval Shaped Grave	Cremation	Bronze Age - Pre-Roman Iron Age	several	small	Dark quartzite	?	?	?	Ceramics, charcoal	grave severely disturbed

Site Name	Site Code	System Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Voel, Silkeborg, Midtjylland	160115-205	121404	Cairn	Inhumation	Iron Age/Younger Germanic Iron Age?	several	?	Burnt quartzite	?	?	?	granite, flint, ash, charcoal	grave was empty; grave was covered by a layer of burned granite, quartzite, flint, ash and charcoal
Torup Mensalgård, Nordfyns	080507-99	209982	Single Find possibly from Bronze Age grave	?	Younger Bronze Age/Older Iron Age (1100BC – AD 374)	several	?	Quartzite	?	?	?	flint	N/A
Bregnehøj, Rebild, Nordjylland	120810-51	29135	Round Mound/Oak Coffin	Inhumation	Bronze Age (1700 - 1101BC)	1	?	Quartz	?	?	?	?	mound with 3 phases (Stone, Bronze, & Viking Age); only one persevered is Bronze Age; The central grave was an oak coffin grave; in the east end of the grave there was a quartz stone

Site Name	Site Code	System Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Koldby Planteskole, Thisted, Nordjylland	110106-131	16464	Round Mound Grave	Cremation	Stone - Bronze Age (3950 - 501BC)/Iron Age (500BC – AD 1066)	1	small	Quartz(ite) bead	?	?	?	flint arrow tip; iron cramp	Bead found in an urn in the mound; mound dated to Stone - Bronze Age (3950 - 501BC) & cremation urn dated to Iron Age (500BC - 1066AD)
Møgelhøj, Vesthimmerland, Nordjylland	120709-22	28219	Round Mound Grave	inhumation	Stone Age (24000BC - 1700BC)	?	1.10 x 0.8 x 0.5m	quartzite	?	?	?	?	3 separate mounds combined into 1; bottom mound had an inhumation & oak casket; disturbed by excavations never recorded
Rold, Mariagerfjord, Nordjylland	120407-39	138520	Round Mound/Stone Packing Grave	inhumation	Stone Age (2350 - 1701BC)	1	Oval	quartz	?	?	?	ceramics; charcoal	grave severely disturbed by modern plowing

Site Name	Site Code	System Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Sveriggårds Mark, Mariagerfjord, Nordjylland	120407-6	25616	Round Mound/Stone Cist Grave	inhumation	Stone Age (2350 - 1701BC)	1	Oval	quartz	?	?	?	crushed flint; ceramics; dagger	central grave not found; stone cist is a secondary grave; in the cist was the quartz stone on top of the skeleton's chest
True, Mariagerfjord, Nordjylland	120412-93	26006	Stone Packing Grave	inhumation	Stone Age (2800 - 2351BC)	2	Smooth, small	quartz	?	?	?	7-8 flint daggers; 10 arrowheads; arrows in the making; 4 quern stones; flint	possibly 3 individual humans
Vongshøj, Rebild, Nordjylland	120810-38	29122	Round Mound/Stone Cist Grave	?	Stone Age (2350 - 1701BC)	?	Oval	Quartz	?	?	?	ceramics	N/A
Vollerup, Vordingborg, Sjælland	050505-112	90125	Long Mound/Megalithic Passage Grave	Inhumation with burnt bones	Stone Age (3950BC - 2801BC)	1	large	no pebbles, but rather a granite capstone w/many quartz veins	?	?	?	flint spear	N/A
Skødegaard, Vejen, Sønderjylland	190102-67	73036	Round Mound Grave	possible cremation urn grave	Stone Age	1	?	Amber-colored quartz w/natural hole on side	?	?	?	fragmented amber beads	N/A
Ullerup Kirketomt, Fredericia, Sønderjylland	170303-28	124372	Church Cemetery	?	Medieval (AD 1067 - 1660)	?	?	Quartz	?	?	?	?	N/A

APPENDIX J

NORWEGIAN SITES WITH QUARTZ OR WHITE STONES

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Langeid, Øvre, Bygland, Aust-Agder, Gr. 11	136686	C58885	Flat grave	?	Viking Age	2	3.1x2.6 x2.0cm	White & yellow quartz	M?	?	?	iron axe; iron sword; iron/wood objects; iron objects; iron nails; textile; wood; slag; charcoal	Human remains missing
Langeid, Øvre, Bygland, Aust-Agder, Gr. 30	136686	C58900	Flat grave	?	Viking Age	1	1.5x1.2x 0.3cm	White quartz	F?	?	?	silver clasp; iron object; iron nails; iron fitting; textiles; wood; silver frag; glass beads; iron knives; iron spear (possibly from secondary cremation); iron sickle; amber bead; flint strike-a-lites; iron scissors; slag; tar; wooden coffin frag; charcoal; bone comb (16 cats.)	human remains missing; secondary cremation on top
Bugøynes III, Sør-Varanger, Finnmark	?	Ts6271	Cairn grave	?	Older Stone Age	22	?	White, clear, & greenish quartz; tool debris	?	?	?	?	N/A
Gravholmen, Sør-Varanger, Finnmark, Gr. 5	?	Ts6102	Grave	?	Younger Stone Age	2	?	milky and semi-clear gray quartz; tool debris	?	?	?	quartz scraper	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Gravholmen, Sør-Varanger, Finnmark, Gr. 7	?	Ts6102	Grave	?	Younger Stone Age	3	?	clear, whitish and grayish quartzite; tool debris	?	?	?	?	N/A
Gravholmen, Sør-Varanger, Finnmark, Gr. 9	?	Ts6102	Grave	?	Younger Stone Age	2	?	semi-clear, greyish greenish and yellowish quartzite; tool debris	?	?	?	Quartz knife	N/A
Gravholmen, Sør-Varanger, Finnmark, Gr. gravpl. u.f.	?	Ts6102	Grave	?	Younger Stone Age	1	?	Milky quartz; tool debris	?	?	?	?	N/A
Gravholmen, Sør-Varanger, Finnmark, north of grave 22	?	Ts6102	Grave	?	Younger Stone Age	5	?	semi-clear, greyish greenish and yellowish; tool debris	?	?	?	quartz scrapers; quartz cores	N/A
Hjemsted, Nesseby, Finnmark	?	Ts4329	Grave	?	Iron Age	1	?	Quartz	?	?	?	iron blade; stone tool; 2 small frags of wood	N/A
Jotka bru, Alta, Finnmark	?	Ts8777	Grave	Cremation?	Viking Age	?	?	Quartz; tool debris	?	?	?	bone hook; soapstone objects; iron plate; ceramics; iron knife; charcoal; quartz scraper; red ochre; slag; flint; flat sandstone	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Jotkaleiren, Alta, Finnmark	?	Ts8778	Grave	Cremation?	Viking Age	?	?	Quartz; tool debris	?	?	?	charcoal; bone arrowhead; ochre	N/A
Kenttan, Karasjok, Finnmark, Gr. 2	?	Ts7168	Cairn grave	Cremation	Medieval	1	?	Quartz; tool debris	?	?	?	stone scraper	N/A
Kenttan, Karasjok, Finnmark, Gr. 10	?	Ts7182	Cairn grave	Cremation	Medieval	3	?	2 milk quartz & 1 quartzite; tool debris	?	?	?	slag	N/A
Lappegrav, Nesseby, Finnmark	?	C8517	Grave	?	?	6	?	Quartz	?	?	?	?	N/A
Lappisk Grav ved Klubvik, Næsseby, Finnmark	?	C8677	Grave	?	Iron Age	2	?	white/clear & gray quartz	?	?	?	?	pieces w/strike marks
Mortensnes Felt A, Nesseby, Finnmark, Gr. 2	?	Ts6404	Grave	?	Younger Stone Age	10	0.8-16.7cm	Quartz/ Quartzite; tool debris	?	?	?	Ceramics, pumice	N/A
Mortensnes Felt A, Nesseby, Finnmark, Gr. 3	?	Ts6405; Ts 6412	Grave	?	Younger Stone Age	4	1.0-1.6cm	quartz/ quartzite; tool debris	?	?	?	?	N/A
Mortensnes Felt A, Nesseby, Finnmark, Gr. 2	?	Ts6404	Grave	?	Younger Stone Age	10	0.8-16.7cm	Quartz/ Quartzite; tool debris	?	?	?	Ceramics, pumice	N/A
Mortensnes Felt A, Nesseby, Finnmark, Gr. 3	?	Ts6405; Ts 6412	Grave	?	Younger Stone Age	4	1.0-1.6cm	quartz/ quartzite; tool debris	?	?	?	?	N/A
Mortensnes, Nesseby, Finnmark, Gr. 39	?	Ts6431	Grave	Inhumation	Iron Age /Medieval	1	2.8-3.2cm	quartz/ quartzite; tool debris	?	?	Snail shell	birch bark; pumice; quartz scrapers; flint	N/A
Mortensnes, Nesseby, Finnmark, Gr. 42	?	Ts6432	Grave	?	Iron Age /Medieval	3	1.3-2.2cm	quartz/ quartzite; tool debris	?	?	?	birch bark	N/A
Mortensnes, Nesseby, Finnmark, Gr. 68	?	Ts6452	Grave	?	Iron Age /Medieval	1	1.2-4.0cm	quartz/ quartzite; tool debris	?	?	horse	?	N/A
Mortensnes, Nesseby, Finnmark, Gr. 70	?	Ts6453	Grave	Inhumation	Iron Age /Medieval	3	up to 4.8cm	quartz/ quartzite; tool debris	?	?	?	birch bark; ceramics; quartz scrapers	N/A
Mortensnes, Nesseby, Finnmark, Gr. 73	?	Ts6457	Grave	?	Iron Age /Medieval	4	up to 6.7cm	quartz/ quartzite; tool debris	?	?	?	birch bark; pumice; flint; shell	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Mortensnes, Nesseby, Finnmark, Gr. ?	?	Ts6458	Grave	?	Iron Age /Medieval	7	up to 5.3cm	quartz/ quartzite; tool debris	?	?	?	quartz scraper	N/A
Mortensnes, Nesseby, Finnmark, Gr. 97	?	Ts6465	Grave	?	Iron Age /Medieval	2	3.6 & 4.0cm	quartz/ quartzite; tool debris	?	?	Mammal	pumice; birch bark; birch branch	N/A
Mortensnes, Nesseby, Finnmark, Gr. 108	?	Ts6468	Grave	?	Iron Age /Medieval	1	6.1cm	quartz/ quartzite; tool debris	?	?	seal; guillemot	birch bark	N/A
Mortensnes, Nesseby, Finnmark, Gr. 113	?	Ts6469	Grave	Inhumation	Iron Age /Medieval	6	up to 4.7cm	quartz/ quartzite; tool debris	?	?	?	birch bark; flint scraper; quartz scraper; flint frags	N/A
Mortensnes, Nesseby, Finnmark, Gr. 121	?	Ts6471	Grave	Inhumation	Iron Age /Medieval	1	3.4cm	quartz/ quartzite; tool debris	?	?	reindeer	birch bark; leather; reindeer hair	N/A
Mortensnes, Nesseby, Finnmark, Gr. 145	?	Ts6482	Grave	Inhumation	Iron Age /Medieval	3	up to 2.1cm	quartz/ quartzite; tool debris	?	?	?	soapstone spindle whorl; stone spindle whorl; bronze nails; glass beads; granite; iron/copper frags; wood; pumice; birch bark	N/A
Mortensnes, Nesseby, Finnmark, Gr. 151	?	Ts6485	Grave	?	Iron Age /Medieval	1	4.2cm	quartz/ quartzite; tool debris	?	?	?	birch bark; kat?	N/A
Mortensnes, Nesseby, Finnmark, Gr. ?	?	Ts6486	Grave	?	Stone Age	1	1.7cm	quartz/ quartzite; tool debris	?	?	?	impact quartz stone	N/A
Mortensnes, Nesseby, Finnmark, Gr. ?	?	Ts6601	Grave	?	Iron Age /Medieval	1	8.7cm	quartz/ quartzite; tool debris	?	?	?	?	N/A
Slettnes, Hammerfest, Finnmark	?	Ts9416	Cairn Grave	?	Younger Stone Age	4	?	Quartz; tool debris	?	?	?	flint cores; rock crystal core; pumice	N/A
Svartberget ved Mortensnæs, Nesseby, Finnmark	?	C8525	Grave	Inhumation	Iron Age /Medieval	1	?	clear, whitish quartz	?	?	?	iron sword frag; Lappish horn lantern?	disturbed

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Varanger, Nesseby, Finnmark	?	Ts1997; Ts1999	Grave	?	Younger Stone Age	2	?	white/gray quartz	?	?	Mussel shells	iron frag; stone axes; stone knife; ceramics; misc. stones	N/A
Veinesbotn, Nesseby, Finnmark	?	Ts2005	Grave	?	?	1	?	quartz	?	?	?	birch bark	N/A
Espevær, Bømlo, Hordaland, Gr. 46	?	B10316	Grave	?	?	1	?	Natural stone; gray w/white veins & reddish weathering	?	?	?	Stone axe	found outside of the grave in a newly dug ditch; but is listed with Gr. 46
Modvo, Bakkas, Hordaland, Mound 2	?	B11433	Mound Grave	Cremation	Older Iron Age	1	small	Quartz	F	?	?	bone hair pin; ceramics; iron frags; charcoal; slate	N/A
Rongve, Osterøy, Hordaland, Gr. 42	?	B9015	Mound Grave	Cremation?	Migration Age	1	?	White quartz	M?	?	?	iron sword; iron axe; iron spears; iron shield bule; iron shield handle fittings; iron knife; iron scissors; ceramics; quartz whetstone	1 piece of burnt bone
Blindheim, Giske, Møre og Romsdal, Gr. 60	?	B8628	Mound Grave	Inhumation?	Older Iron Age	1	6.6X 5.8cm	Almost white quartzite	?	?	?	ceramics; iron spearheads; iron shield bule; shield handle; iron knives; iron syl; iron belt buckle; bronze tweezers; wooden vessel; bark; wool fabric	Just human teeth

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Haram, Haram, Møre og Romsdal, Gr. 14	?	B12140	Flat grave/stone cist	?	Migration Age	1	11x8x 5.8cm	White quartzite	?	?	?	ceramics; glass bead	Possibly a strike-a-lite; disturbed by modern farmer & quartz might not belong to the grave
Næss, Sundal, Møre og Romsdal, Gr. 115, Mound 1?	?	T20961	Mound Grave	?	Younger Bronze Age/Older Iron Age	4	rock crystal: 0.5cm; quartz: 4.7cm	Clear & white quartz & rock crystal; tool debris	?	?	?	charcoal; wood; flint	N/A
Næss, Sundal, Møre og Romsdal, Gr. 115, Mound 29	?	T20960	Mound Grave	?	Younger Bronze Age/Older Iron Age	4	quartzite: 0.9cm; quartz: 3.7cm; 1.2cm; 1.6cm	Clearish white quartz/ quartzite; tool debris	?	?	?	flint; charcoal; other stone	N/A
Ulvestad, Haram, Møre og Romsdal	?	B8174	Cairn Grave	?	Viking Age	2	?	Quartz & rock crystal	?	?	?	2 bronze buckles; iron object; iron sickle; iron key; bronze rod; iron nails; iron fittings; flint	Quartz possibly from the Stone Age settlement site nearby

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Aas, Lurøy, Nordland	?	Ts6341	Mound Grave	Inhumation?	Migration Age	21		Quartz/ quartzite	?	?	?	ceramics; iron/copper axe; iron fire starter; bronze fittings; iron/copper knife; iron/copper arrowhead; iron/copper cramp; iron/copper band; stone dagger; charcoal	N/A
Eidem, Vega, Nordland	?	T8310	Mound Grave	Inhumation?	Viking Age	1	?	quartz	?	?	?	flint; iron knife; iron rivets; stone bridle piece?	Quartz covered in rust
Kvalnes, Vestvågøy, Nordland	?	Ts4460	Grave	?	Younger Iron Age	1	?	White stone	?	?	fish	bronze belt buckle; clay bead; bone comb; bone/horn spoon	Stone featured in the middle of a bronze broach
Uteid, Hamarøy, Nordland	?	Ts9737	Mound Grave	?	Iron Age	1	?	White, possibly waterworn stone with a hole	?	?	?	slate plate; glass beads; glass frags; iron/copper knife	robbed
Aspestrand Søndre, Aremark, Østfold	19883	C52648	Stone cist grave	Cremation?	Stone Age	165	?	Quartz; tool debris	?	?	?	flint dagger?; flint core; flint; ceramics; charcoal	N/A
Berg Skole Av Unneberg, Halden, Østfold	?	C38506	Grave	Cremation?	Older Iron Age	1	2.7cm	White quartz; tool debris	1M; 1 F	2 Young Adults; 2 Children (1-5 yrs)	2 Young Adults; 2 Children (1-5)	copper alloy belt buckles; copper alloy fittings; copper alloy frags; iron needle; glass vessel; ceramics; bone comb; iron ring; flint strike-a-lite; flint; whetstone; bear claws; charcoal	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Glemminge Østre, Fredrikstad, Østfold, Gr. 67	70792	C29860	Flat grave	Cremation?	Pre-Roman/Roman Iron Age	1	?	quartzite	?	?	?	ceramics; iron ring; iron frag; charcoal; flint	N/A
Grimstad Østre, Råde, Østfold	49134	C53229	Cairn Grave	Cremation?	Younger Bronze Age	3	3x1cm	Quartz	?	Adult	animals present, but species unknown	flint; flint core; charcoal; possible bone needle	N/A
Mosserød, Aremark, Østfold	?	C21405	Stone cist grave	Mix	Younger Stone Age	Many	Various sizes	White quartz	?	?	?	flint; ceramics; charcoal; resin?	N/A
Skuleberg/Dingstad Østre, Spydeberg, Østfold	69497	C52603	Grave	Cremation	Older Iron Age	1	4.6cm; 13.4g	Quartz	?	Adults	?	Grave 3: iron object; charcoal; Grave 4: bone comb; bone needle; ceramics; iron object; mica; organic object; charcoal	loose find between Graves 3 & 4 (both cremations)
Austre Bore, Klepp, Rogaland	?	S6020	Cairn Grave	Inhumation	Older Bronze Age/Older Iron Age	1	8.7 X 7.2cm	quartzite	?	?	sea snail shells	bronze tutulus (female dress ornament); bronze pipe?; ceramics; stone strike-a-lite; iron buckle; stone bowl?; flint; charcoal	Stone has wear; Excavations from older Bronze Age II, with 2 secondary graves from the ancient Iron Age
Avaldsnes, Karmøy, Rogaland,Gr. 86	34379	S11886	Grave	Cremation?	Younger Roman Iron Age - Migration Age	2	2.1-3.3cm	White quartz; tool debris	?	?	?	ceramics; burnt clay; flint scraper; flint strike-a-lite; flint; flint arrowhead; charcoal	possibly a loose find from a Bronze Age cultivation layer

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Årsvoll, Sandnes, Rogaland	5132	S9363	Cairn grave	Cremation?	Older Iron Age	9	?	5 smokey quartz; 1 light colored quartzite; 3 quartzite	?	?	?	flint; mica; flint arrowhead; tar?; iron knife	grave built on top of a Stone Age settlement
Bekkeheia, Hå, Rogaland	?	S9869	Cairn mound grave	2 cremations & 1 inhumation	Stone Age/Older Iron Age	4	?	Light colored beach quartzite	?	?	?	iron fitting; ceramics; whetstone; grind stone; flint; iron frag; charcoal; gold ring; bronze buckle; iron knife; horn/bone object	not sure which artifacts belong to which particular burial
Berge, Forsand, Rogaland	?	S7117	Mound grave	Cremation	Migration Age	2?	Quartz: 2.4cm; other: 2.9cm	1 quartz; 1 small, round, smooth stone of unknown color/material	?	?	?	flint; 2 bronze buckles; bronze tweezers; iron frags; ceramic; charcoal	N/A
Fedjedalen, Haugesund, Rogaland	114877	S12621	Grave	Cremation	Migration Age	1	small	"cuddle stone" or amulet (beach stone)	?	?	?	N/A	quartz detected in the same structure containing burnt human bone
Fora, Finnøy, Rogaland, gn. 18	?	S6975	Cairn grave	?	Migration Age	1	5.5x 4.5cm; 82.9g	White marble	?	?	?	2 decorated gold bracteates; soapstone spindle whorl	N/A
Forsand, Forsand, Rogaland, Gr. 41	?	S10556	Cairn grave	Cremation	?	4	7.3cm	Gray white quartz	?	?	?	soapstone spindle whorl; iron frag; bronze frags; ceramics; charcoal	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Haugland Nedre, Time, Rogaland	34799	S9341	Cairn grave	Inhumation?	Migration Age	2	Beach stone: 3.8cm	1 quartz; 1 white quartz (beach stone)	?	?	?	flint; ceramics; bronze fitting; silver buckle; iron frag; tar?	N/A
Hellisen Reg. Nr. 21B, Klepp, Rogaland	14611, 34751	S2888	Mound grave	?	Older Iron Age (AD 200-500)	1	2.8x1.8x 1.1cm	quartz	?	?	?	bronze key ring; 4 stone spindle whorls; red glass bead	N/A
Hårr, Hå, Rogaland	5048	S10129	Cairn Grave	?	Migration Age	1	7.1cm; 222g	Quartzite crushed on one side	?	?	?	8 glass beads; bronze buckle; stone spindle whorl; iron knife; ceramics; another pebble of some kind; flint	N/A
Håland, Time, Rogaland	100558	S12449	Mound Grave	Cremation?	Iron Age (multi-phase use)	6	small	2 quartz/ite "cuddle stones" (beach stones); 1 quartz frag w/organic material attached; 1 microfleck rock crystal; 2 quartzites w/crush marks	?	?	?	iron spearhead; iron/bone knife; bronze buckle; iron frags; ceramics; flint strike-a-lite; flint scraper; flint core; flint; burnt clay; resin; wood; nutshell; charcoal; quartz core; organic material attached to quartz	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Hålandsmarka, Heiå, Time, Rogaland	S12452	S12452	Grave	?	?	2	2.2-4.4x2.0-3.9x2.0-2.2cm	Quartz "cuddle stones" (beach stones)	?	?	?	iron weaving sword; linen crochet?; iron scissors; iron fittings; iron nail; iron frag; glass beads; iron handles; soapstone spindle whorl; iron knife; iron key; iron plate; bark	N/A
Høyland, Hå, Rogaland, Mound II	?	S9777	Mound grave	Cremation?	?	3	Small quartzite large quartz	2 light colored quartzites; 1 quartz pebble (broken)	?	?	?	ceramics; flint; whetstone; charcoal	N/A
Kongshaugen, Ringjen, Karmøy, Rogaland, Gr. 97	S11920	?	Mound grave	Cremation?	Bronze Age	1	?	Quartz	?	?	?	flint dagger; ceramics; flint; charcoal	found in the wall restoration
Løgevik, Sokndal, Rogaland, Gr. 81	S12709	44593	Cairn Grave	?	Iron Age	83	2.79 kg	Quartz; some tool debris	?	?	?	charcoal	N/A
Mæland, Klepp, Rogaland (gn. 5)	S5340	?	Cairn Grave	?	Young Bronze Age	1	?	Quartzite (beach stone)	?	?	?	ceramics	N/A
Nordre Sunde, Stavanger, Rogaland Gr.?	S9309	72289	Mound grave	Cremation?	Stone Age/Younger Bronze Age	8	?	2 quartzite "cuddle stones" (water polished?); 6 rock crystal tool debris	?	?	?	unknown stone; flint; ceramics; nutshell; pumice; flint scraper; charcoal	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Østabø, Vindafjord, Rogaland	S5323	?	Grave	?	Viking Age	1		translucent white (mother of pearl like) w/yellow-white lines	?	?	?	iron nails; iron object; iron frags; wood frag; ceramics; bark cord?; iron/wood sword; iron hinges; lead weight; whetstone; flint	N/A
Nordre Sunde, Stavanger, Rogaland Gr.?	S9310	72289	Cairn Grave	Cremation?	Stone Age/Younger Bronze Age	8	White quartz pebble: 13.5cm	5 rock crystal tool debris; l quartzite tool debris; 1 faceted white quartz; 1 quartzite pebble w/wear	?	?	?	flint; ceramics; flint dagger; flint arrowheads; grind stone; charcoal	N/A
Pollestad, Klepp, Rogaland	S3361	?	Flat grave	Cremation?	Younger Bronze Age	1	?	Quartz tool debris	?	?	?	flint; ceramics; bronze tutulus (Female dress ornament); flint arrowheads; charcoal; flint scraper; flint core frag	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Raunes, Vindafjord, Rogaland, Gr. 102	S12093	72598	Mound grave	Cremation?	Younger Roman Iron Age - Migration Age	27	White quartz: white quartz: 1.2-4.1X0.5-2.8X0.1-1.3 cm; 57 g	25 white quartz; 1 microfleck quartz (stone age); 1 quartz tool debris w/strike mark (stone age)	?	?	?	glass bead; iron needle; ceramics; found in the mound filling: natural stone; slag; charcoal; organic material	2 burials in 1 mound; 25 white quartz are from layers straight across the foundations in the stone cist grave; microfleck & tool debris are from mound filling
Re, Time, Rogaland	?	S5128	Mound grave	Cremation?	Younger Bronze Age/Older Iron Age	1	?	quartz	?	?	?	glass beads; iron frags; ceramics	Quartz is fused with glass beads and burnt bone
Rugland, Herikstad, Hå, Rogaland	?	S10636	Cairn grave	?	?	2	?	quartz	?	?	?	ceramics; flint; charcoal	N/A
Sakkastad, Haugesund, Rogaland	115073	S13256	Cairn grave	?	Stone Age	83	?	2 quartzite; 12 rock crystal; 69 quartz; tool debris	?	?	?	stone axe; flint arrowhead; flint scrapers; flint; rhyolite; beach pebble; pumice; sandstone sanding plate; grindstone; rhyolite/flint/quartz core	N/A
Skadberg, Sola, Rogaland, Grav 2 AA1889	120554	S12722	Flat grave	Inhumation	Viking Age	1	2.6x2cm	Quartz "cuddle stone"	?	Child	?	granite stone; iron knife; iron staple; iron thread	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Skadberg, Sola, Rogaland, Grav 2 AA2099	120554	S12720	Flat grave	Inhumation	Viking Age	2	3.3x 2.3cm	quartz	?	?	?	2 bronze broaches; iron ring; stone spindle whorl; iron nails; granite stone; burnt clay; iron frags; mineralized wood; horn frags; iron bars; 2 iron knives; 3 iron hinges; iron hook; iron fittings; iron eyelet; burnt clay	includes some burnt bones
Skadberg, Sola, Rogaland, Grav 2 AA6182	120554	S12723	Flat grave	Inhumation	Viking Age	1	3.5x 2.4cm	Quartz "cuddle stone"	F	Adult (20-40 yrs)	?	iron key; iron/wood knife; iron sickle; glass beads; amber bead; bronze needle; iron weaving sword; iron fitting; iron nails; iron frags; wool textile; mineralized wood; iron cramp	Just Human teeth
Stokka, Sandnes, Rogaland	?	S10184	Cairn Grave/or a clearance cairn	Cremation	Older Bronze Age	1	3.7x 4.4cm	quartz	?	?	?	amber; flint dagger; charcoal; ceramics	N/A
Susort, Tysvær, Rogland	?	S10648	Cairn grave	Cremation	Older Iron Age	1	2.0cm	Quartzite "cuddle stone"	?	?	?	pumice; flint; grindstone; charcoal; iron frags	N/A
Sør-Kolnes, Sola, Rogaland	?	S5462	Grave	?	Migration Age	1	3.8 x 1.9 cm	Beige quartz tool debris	?	?	?	ceramics; iron fittings; iron frags; iron plow; glass beaker; lead weight; whetstone	N/A
Vestbø, Vindafjord, Rogaland	?	S12732	Cairn grave	?	?	2	1.8cm & 1.0cm	Quartz tool debris	?	?	?	flint tool; charcoal	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Tjora, Sola, Rogaland, Cairn 5	14854	S12430	Cairn grave	Cremation?	Younger Bronze Age/Viking Age	1	2cm	Light colored quartz "cuddle stone" or game piece	?	?	?	ceramics; iron staples; iron frags; iron sickle	the cairn itself was built in the Viking Age but has disturbed a burial from the Younger Bronze Age
Dale, Fjaler, Sogn og Fjordane	?	B10768	Mound grave	?	Migration Age	1	9.5cm	White quartzite w/possible crush marks; possible fire starter	?	?	?	ceramics; spearhead; iron arrowheads; iron scissors; iron knife; iron belt fitting; iron buckle; iron tip; iron casket handles?; iron frags; bronze buckle; bark; hair; clothing	N/A
Gjemmestad, Gloppen, Sogn og Fjordane, Gr. 9	?	B11393	Mound grave	Cremation	Viking Age	5	up to 4.5cm	Quartz	?	?	?	flint scrapers; flint	N/A
Gutdalen, Stryn, Sogn og Fjordane, Gr. 14	?	B7894	Mound grave	Cremation	Younger Iron Age	1	small	?	?	?	?	sword, knife, shield boss; arrowheads; axe; possible oak sickle; iron bit/bridles; strike-a-lites; iron fittings; nails; soapstone loom weight; whetstones; iron frags; charcoal; glass bead; stone dice	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Kvåle, Sogndal, Sogn og Fjordane, Gr. 43	?	B13954	Grave	Cremation?	Migration Age	10	rock crystal: 1.6cm	7 white quartz; 2 rock crystal; 1 chalcedony	?	?	?	3 small silver masks; gilded silver embossed buckle; 2 cross shaped silver buckles; bronze buckles; 2 animal decorated gilded silver hooks; silver hooks; bronze bird needle; bronze needle; iron needle; glass beads; amber bead; glass vessels; iron weaving sword; iron knife; iron tool; iron object; stone spindle whorl; clay spindle whorls?; iron hook; bronze fitting; bronze hook; ceramics; iron handles; iron plate; iron band; iron nails; iron cramps; iron fitting; iron frags; textile; mica; stone axe; piece of stone with "bubbles" in the surface; glass frags; glass button; bronze pendant; unburnt clay; charcoal	Burnt and unburnt bones
Mele, Ørsta, Sunnmøre, Gr. 46	?	B10009	Grave	?	Stone Age	A few	?	Quartz	?	?	?	flint axe; flint	N/A
Flatset, Hadsel, Tromsø	?	Ts814	Mound Grave	Inhumation	Younger Iron Age	1	?	White, smoothed quartz	?	?	?	spearhead; quartz whetstone	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Kyrkjeeide, Stryn, Sogn og Fjordane, Gr. 63	?	B8953	Flat grave	?	Viking Age	1	?	Quartz	F?	?	?	flint; mica; 2 bronze broaches; iron lamp; leather belt; harness; iron bissel; brass fitting; bronze nails; coffin frags; iron frying pan; iron scissors frag; iron ring; iron tool; whetstone; burnt clay spindle whorl; iron frag; iron nails; soapstone vessel	N/A
Setre, Luster, Sogn og Fjordane, Mound III	?	B11431	Mound grave	?	Younger Roman Iron Age - Migration Age	2	12.6 & 24.0cm	Quartz	F	?	?	bronze buckles; glass beads; amber bead; burnt clay spindle whorl; iron knife; iron hook key?; iron belt ring; ceramics	N/A
Maarem Nordre, Tinn, Telemark, Gr. 2	?	C53630	Grave	Inhumation?	Viking Age	1	2.3x 1.9cm	Quartz tool debris	?	?	animals present, species unknown	copper allow buckles; copper alloy amulet; silver finger ring; iron sickle; iron knife; iron nails; textiles; iron rod; metal thread; copper alloy ring; glass beads; rock crystal bead; faience bead; lead beads; stone beads; wood; slag; charcoal; burnt clay	N/A
Greipstad, Troms, Tromsø, Gnr. 163/brnr. 1	?	Ts5781	Mound Grave	Cremation?	Migration Age	1	3.5cm	gray/half clear quartzite tool debris	?	?	unburnt large mammal	bronze buckle; charcoal; iron frags; glass frag; wood	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Oseberghaugen av Jarlsberg Hovedgård, Tønsberg, Vestfold	61845	C55000	Boat grave/ mound	Inhumation	Viking Age	Some	?	quartz	2F	70/80 & 50	horse, dog, cow	textiles, shoes, bone/horn comb, wooden bed, ship equipment, kitchen utensils, farm tools, decorated wooden sleighs, wooden cart, carved wooden animal heads, tents	quartz found on the floorboards in the front of the ship
Bessebostad, Harstad, Tromsø	28763	Ts1096	Mound Grave	?	Older Iron Age	?	?	White/gray quartz (sharpening tools)	?	?	?	iron knife; iron spearheads; iron tools; quartz strike-a-lite; iron celt?	N/A
Grunnfarnes, Torsken, Tromsø, Gr. 29	?	Ts6072	Mound grave	?	Older Iron Age	2	?	Quartzite tool debris	?	?	?	ceramics; glass beads; quartz beads; stone spindle whorl; iron rod; iron frags; bronze frag; iron objects; iron nails; iron hooks; iron staple; birch bark; hammer stone; flint	N/A
Hellø, Harstad K., Tromsø	?	Ts1022	Stone grave	Inhumation	Younger Iron Age	1	9x13cm	White/gray heart-shaped quartz	?	?	?	?	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Hagbartholmen, Steigen, Tromsø, Grav I. 5	?	Ts5281	Flat grave	Inhumation	Migration Age/Viking Age	1	?	Milky quartz	?	?	Whale	wood; birch bark; ceramics; bone comb; worked bone; worked whale bone; iron nails; flint; glass beads; bronze beads; rock crystal beads; bronze rings; bronze buckles; stone spindle whorl; soapstone spindle whorl; round wooden board; bronze bowl weight; lead weight; whale bone weaving shuttle; whetstone; iron hook; iron sickle; iron bells; iron plate; iron knife; iron chain	N/A
Hagbartholmen, Steigen, Tromsø, Grav I/1956	?	Ts5288	Mound grave	Inhumation	Migration Age/Viking Age	1	?	White fist-sized stone	?	?	Rats?	58 bone gaming pieces; iron axe; iron spearheads; strike-a-lite; iron arrowheads; iron sword; bronze stud; iron objects	N/A
Tussøy, Tromsø, Tromsø; Cairn 1	?	Ts6750	Cairn grave	?	?	3	2-3.9cm	Dark gray quartzite tool debris	?	?	?	pumice	?
Aunvold, Steinkjer, Trøndelag, Gr. 246	?	T20248	Grave	inhumation	Viking Age	1	3.3cm	White quartzite; smooth; possible game piece; purposely polished	F	Adult (19-20 yrs)	?	iron sword; iron scissors; sickle/scythe; iron file; iron nails; iron frags; bone comb; 8 bone gaming pieces; slate; iron spearhead; glass bead	quartz found with the skeleton

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Fånes nedre, Frosta, Trøndelag	?	T8654	Cairn grave	cremation	Younger Bronze Age/Iron Age	?	?	Quartz	?	?	?	possible glass bead	burnt bones found on bedrock, partly in coal soil and with pieces of quartz
Føling søndre, Steinkjer, Trøndelag	?	T16078	Mound grave	inhumation	Viking Age	7	Child's fist-sized stones; 20kg block	6 White quartz stones & 1 quartz block	F	?	?	2 bronze bowl buckles; amber bead; 3 bronze keys; bronze ring; iron sickle blade; iron rivet; iron ring; burnt clay	quartz stones under the feet "assumed to have been placed here for magical purposes"; quartz block found in the fill
Nordskjør, Roan, Trøndelag	?	T14787	Possible grave	possible cremation	Younger Stone Age	2	?	White quartzite tool debris	?	?	?	flint; flint axe; flint scraper; quartzite scraper; stone sinker; unknown stone	N/A
Frøset, Steinkjer, Trøndelag, Cairn 3	23738	T22799	Cairn grave	Inhumation	Older Bronze Age/Pre-Roman Iron Age	5	3.5x2.0cm; 0.5cm x2.2cm	Quartz	?	?	marine mammal; small rodent (probably modern)	charcoal; shell	3 cremation graves & one older looted inhumation in cairn; finds are from the older inhumation (unburnt bones)

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Halsan vestre, Levanger, Trøndelag	36359	T25724	Cairn grave	Cremation?	Probably Migration Age	several	?	Crushed quartzite	?	?	?	charcoal; iron nails; iron rivets	burnt bones; burnt bones dated to Migration Age; charcoal dated to Medieval
Olstad, Skaun, Trøndelag	177752	T26353	Grave	inhumation	Viking Age	2	?	White quartz/agate; smooth & purposely polished	?	?	?	sword; dark carnelian stones; unknown dark small pebbles; dark agate stones; iron rusted bone?; iron/copper weight; iron shield bules; lead; leather; pelt; iron nails; iron/bone/textile tool; iron knife; silver frags; iron/wood frag; 2 silver coins; silver thread	quartz found in the shield bule
Stubban, Oppdal, Trøndelag	?	T12681	Flat grave	Cremation?	Older Iron Age	1	?	grayish white quartz	?	?	?	flint	stone found near the grave
Uran, Flatanger, Trøndelag, Cairn 30	100652	T23020	Cairn grave	Cremation?	Roman Iron Age/Migration Age	Several	3.3x1.5x 1.2cm; 5.6g	Crushed quartz	?	?	?	ceramics; shell	Robbed
Val, Bjugn, Trøndelag	16240	T1029	Cairn grave	Cremation?	Older Iron Age	5	?	Clear/gray quartz	?	?	?	iron frags; birch bark; iron arrowhead; iron sword; bronze sheathe fitting; iron shield boss	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Vik, Roan, Trøndelag, Gr. 39/6	?	T20751	Mound grave	Cremation?	Older Iron Age	2	1.5cm; 0.6 g	Clear quartz/rock crystal	?	?	bear	bronze buckles; iron fittings; iron nails; glass beads; burnt clay spindle whorls; iron needles; iron rivets; iron objects; melted bronze; burnt clay; bone comb; bone needles; decorated bone object; 15 bear claws; pumice; charcoal	Robbed
Gulli, Tønsberg, Vestfold, Gr. 8	?	C53656	Grave	?	Viking Age	1	2.6 cmx2.8 cmx1.6 cm	White "cuddle stone"	?	?	horse & possible cow	copper alloy buckles; copper needle; iron bridle; iron sickle; iron scissors; iron belt frag; iron fittings; iron buckle; iron objects; ornamental rivets; iron bar; wood; glass beads; stone spindle whorl	N/A
Lund, Larvik, Vestfold	?	C18010	Mound grave	?	Older Iron Age	?	?	Quartz	?	?	?	iron knife; whetstone; clay handle?: flint; flint spearhead?	N/A
Moi, Lyngdal, Vest-Agder	22682	B4502	Grave	?	?	1	?	Fractured & finely ground quartz	?	?	?	ceramics	Human missing
Sande, Farsund, Vest Agder, S15, lok. 2	79738	C55736	Cairn grave	?	Stone Age/Older Bronze Age	2	1.3x3.5 cm	Yellow/white quartz (possible tool debris)	?	?	?	ceramics; charcoal	N/A

Site Name	Locality ID	Museum Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Sande, Farsund, Vest Agder, Gr. 136, Primary grave	79738	C55731	Mound grave	Primary inhumation	Migration Age	41	?	1 rock crystal: glittering clear & translucent, possible amulet; 40 quartz: crushed, yellow-white-whitish-clear	F	?	?	3 silver clasp broaches; unknown metal objects; iron nails; ceramics; iron frag; textile; glass beads; glass/silver bead; amber bead; soapstone spindle whorl; stone spindle whorl; wood; flint; charcoal; copper clasps; silver ring; bronze key & keyring; iron & horn knife; iron weaving sword; bronze/iron/wood object	N/A
Sande, Farsund, Vest Agder, Gr. 136, SE cremation grave	79738	C55733	Mound grave	Cremation	Roman Iron Age	4	1.4x1x5cm	Unmodified quartz	?	?	?	ceramics; slag; burnt clay; charcoal	N/A
Stridsland, Audnedal, Vest-Agder	32836	B3349	Mound grave	Cremation?	?	1	?	Quartz w/abrasive marks	?	?	?	bone comb; iron fitting	N/A

APPENDIX K

SWEDISH SITES WITH QUARTZ OR WHITE STONES

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Ån Tåsjö Hotingsjön, Grundfjärden, Långön Gr.1	SHM 13316:1	1092559	Mound grave	Inhumation	Viking Age	2	?	quartz	?	?	Dog	bronze strap clasp; iron strap fitting; iron axe; iron fitting; iron arrowheads; piece of iron knife; 3 flints; 2 bone arrowheads; bone comb; steel?; whetstone	N/A
Dr Ore Furudal Gr.1	SHM 15693	1186572	Mound grave	Cremation?	Iron Age	8	?	quartz	?	?	?	horn frags; bone arrowhead; flint	N/A
Dr Leksand Dragsängarna	SHM 17507	1186467	Grave	Inhumation	Iron Age	1	?	quartz	?	?	?	iron axe, flint	N/A
Ha Breared Fröböke	SHM 16934	1185201	Dolmen grave	Cremation?	Iron Age	7	?	quartz	?	?	N/A	N/A	disturbed
Ha Fjärås Måå Gr. 1	SHM 31037:A1 (F1)	1164698	Irregular rounded stone setting grave	Cremation?	Bronze Age	2	12g	White/yellow quartz	?	?	?	ceramic vessel frags; slag; flint frags; flint arrowhead	N/A
Ha Kvibille Pilagården	SHM 18265	781449	Grave	?	Bronze – Iron Age	2	?	quartz	?	?	?	burnt clay	N/A
Ha Lindome Bräcka 1:6 Bräcka Gr. 4A	SHM 30397:A4 (F55)	1159854	Cairn grave	?	Bronze - Older Iron Age	5	212g	quartz	?	?	?	wattle & daub; grindstone; flint; potsherds	N/A
Ha Lindome Bräcka 1:6 Bräcka Gr. 5A	SHM 30397:A5 (F15)	1159905	Cairn grave	?	Bronze - Older Iron Age	33	525g	quartz	?	?	?	burnt clay; grindstone; flint; potsherds	N/A
Ha Lindome Bräcka 1:6 Bräcka Gr. 7A	SHM 30397:A7 (F57)	1160027	Cairn grave	Cremation?	Bronze - Older Iron Age	2	25g	quartz	?	?	?	potsherds; burnt clay; grindstone; flint	N/A
Ha Lindome Bräcka 1:6 Bräcka Gr. 8A	SHM 30397:A8 (F70)	1160099	Cairn grave	Cremation?	Bronze - Older Iron Age	1	30g	quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Bräcka 1:6 Bräcka Gr. 10A	SHM 30397:A10 (F49)	1160105	Cairn grave	?	Bronze - Older Iron Age	3	32g	quartz	?	?	?	potsherds; flint	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 1A	SHM 30397:A1 (F211)	1158762	Mound grave	Cremation?	Bronze - Older Iron Age	6	664g	White/clear quartz	?	?	?	ceramic vessel frags; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 3A	SHM 30397:A3 (F208)	1158791	Mound grave	Cremation?	Bronze - Older Iron Age	4	1188.5g	quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 4A	SHM 30397:A4 (F217)	1158799	Stone ring grave	Cremation?	Bronze - Older Iron Age	11	76.5g	quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 5A	SHM 30397:A5 (F226)	1158813	Stone setting grave	Cremation?	Bronze - Older Iron Age	3	10g	quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 6A	SHM 30397:A6 (F232)	1158826	Round stone setting grave	?	Bronze - Older Iron Age	17	680g	quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 7A	SHM 30397:A7 (F229)	1158850	Round stone setting grave	?	Bronze - Older Iron Age	6	197.5g	quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 8A	SHM 30397:A8 (F104)	1158857	Mound grave	Cremation?	Bronze - Older Iron Age	6	324g	quartz	?	?	?	flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 10A	SHM 30397:A10 (F32)	1159017	Round stone setting grave	Cremation?	Bronze - Older Iron Age	7	161g	quartz	?	?	?	potsherds; flint	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 12A	SHM 30397:A12 (F103)	1159101	Pentagonal stone setting grave	Cremation?	Bronze - Older Iron Age	2	4.5g	quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 13A	SHM 30397:A13 (F16)	1159118	Round stone setting grave	Cremation?	Bronze - Older Iron Age	10	91g	quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 15A	SHM 30397:A15 (F254)	1159181	Round stone setting grave	?	Bronze - Older Iron Age	2	20.5g	quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 18A	SHM 30397:A18	1159254	Round stone setting grave	?	Bronze - Older Iron Age	1	2.7x2.4 cm; 11g	quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 19A	SHM 30397:A19 (F148)	1159256	Round stone setting grave	Cremation?	Bronze - Older Iron Age	52	876.5g	Clear quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 20A	SHM 30397:A20 (F170)	1159279	Round stone setting grave	Cremation?	Bronze - Older Iron Age	3	226.5g	quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 21A	SHM 30397:A21 (F233/F264)	1159291; 1159293	Round stone setting grave	Cremation?	Bronze - Older Iron Age	2	24g	quartz	?	?	?	potsherds	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 22A	SHM 30397:A22 (F164)	1159302	Round stone setting grave	Cremation?	Bronze - Older Iron Age	8	155g	quartz	?	?	?	potsherds; flint	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 23A	SHM 30397:A23 (F191)	1159306	Irregular stone setting grave	Cremation?	Bronze - Older Iron Age	7	104.5g	quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 25A	SHM 30397:A25 (F223)	1159313	Round stone setting grave	Cremation?	Bronze - Older Iron Age	8	165.5g	quartz	?	?	?	Flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 28A	SHM 30397:A28 (F240)	1159322	Stone ring grave	?	Bronze - Older Iron Age	10	329g	quartz	?	?	?	potsherds; flint; resin	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 30A	SHM 30397:A30 (F158)	1159345	Round stone setting grave	?	Bronze - Older Iron Age	6	136.5g	quartz	?	?	?	flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 31A	SHM 30397:A31 (F178)	1159356	Round stone setting grave	Cremation?	Bronze - Older Iron Age	2	67g	quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 44A	SHM 30397:A44 (F249)	1159390	Round stone setting grave	Cremation?	Bronze - Older Iron Age	4	6.5g	quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 45A	SHM 30397:A45 (F4)	1159393	Grave	?	Bronze - Older Iron Age	13	99.5g	quartz	?	?	?	?	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 46A	SHM 30397:A46 (F78)	1159397	Round stone setting grave	Cremation?	Bronze - Older Iron Age	4	1.5g	quartz	?	?	?	Flint	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 53A	SHM 30397:A53 (F138)	1159453	3-sided stone setting grave	Cremation?	Bronze - Older Iron Age	14	163g	quartz	?	?	?	potsherds; flint	N/A
Ha Lindome Gastorp 1:15 Gastorp, Soldathögarna Gr. 59A	SHM 30397:A59 (F255)	1159532	Stone setting grave	Cremation?	Younger Iron Age	8	57g	quartz	?	?	?	flint	N/A
Ha Lindome Rantorp 2:2 Rantorp Gr. A1	SHM 30397:A1	1160114	Stone setting grave	?	Bronze - Older Iron Age	5	98g	quartz	?	?	?	flint	N/A
Ha Torpa Kärra 15:1 Kärra	SHM 32346	264362	Round stone setting grave	Cremation?	Bronze Age P.IV	11	19g	quartz	?	?	?	bronze razor; bronze button; bronze nail; ceramic vessel; flint; slag; fruit; charcoal	N/A
Ha Veddige Veddige 1:9 Prästgårdskulle Gr. 1	SHM 31036 (F34)	1164567	Cairn grave	Cremation?	Stone - Bronze Age	26	972.5g	White quartz	?	?	?	flint arrowhead; bronze knife; flint frags; pumice; bronze tweezers; bronze frag; potsherds; charcoal	N/A
Ha Värö Skällåkra 2:1, 11:1 Ringhals Gr. 24:1	SHM 31038:A24:1 (F19)	1165083	irregular stone setting grave	Cremation?	Bronze Age	2	?	White quartz	?	?	?	flint	N/A
Ha Värö Skällåkra 2:1, 11:1 Ringhals Gr. 28:1	SHM 31038:A28:1 (F5)	1165353	Cairn Grave	Cremation?	Bronze Age	2	7.5g	White/yellow quartz	?	?	?	sandstone flywheel; whetstone; flint drill; flint frags	N/A
Ha Värö Skällåkra 2:1, 11:1 Ringhals Gr. 183:1	SHM 31038:A183:1 (F74)	1165367	Cairn Grave	Cremation?	Bronze Age	3	24g	quartz	?	?	?	flint	N/A
Hs Arbrå Vallsta by, Linsänkesbacken Gr. 1	SHM 19461:II	1164892	Mound grave	Cremation?	Iron Age	1	?	white/yellow quartz	?	?	8 bear claws	iron knife; iron rivets; iron nails; iron bars; iron fitting; iron objects; bronze fitting; flint; slag	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Hs Ovanåker	SHM 22270	1165316	Cairn Grave	Cremation?	Iron Age	6	?	Processed quartz	?	?	?	bone comb; flint	N/A
Öl Bredsättra Ormöga 3:6 Ormöga	SHM 27362; (F26); (F2); (F90); (F1)	1322708; 1322609; 1322657; 1322651; 1322654	Stone setting/ cist grave	Inhumation	Iron Age	7	?	Clear quartz	?	?	cow, pig, sheep/goat; fish; seal	iron fitting; bronze fitting; slag; flint; ceramic vessel frags; resin; mini earthenware vessel; charcoal; burnt clay	some burnt bone
Öl Hulterstad Alby, Triberga, Hulterstad Gr. 6	SHM 35050 (F1)	1209024	Grave	?	Stone - Iron Age	1	?	quartzite	?	?	?	flint; amber bead	N/A
Sm Djursdala Lilla Vi 2 Gr. C	SHM 25418:C	1140268	Grave	Cremation?	Roman Iron - Viking Age	1	?	quartz	?	?	rooster	bronze brooch frags; 5 glass beads; iron knife	from the graves between points 1A-1C
Sö Botkyrka Hallunda	SHM 33912:53 (F8)/33912:10 (F4)/33912:8 (F5)/33912:27 (F7)	555456; 555410; 555524; 555416	Mound grave	Cremation?	Younger Iron Age	3+	~9g	Quartz tool debris	?	?	?	ceramics; iron objects; burnt clay	N/A
Sö Härad Härads-Kumla 2:9 Härads-Kumla	SHM 34108 (F776)	516686	Grave	?	Vendel - Viking Age	1	1g	quartz	?	?	?	?	most of the cemetery was cremation, but 6 were inhumations, so don't know here

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Ög Västra Tollstad Alvastra, Galgbacken	SHM 33762	635572; 733888; 733904; 733936; 638652; 640149; 729861; 638655; 638731; 638753; 638774; 640052; 640268; 638114; 638659; 640149; 729861; 638652; 733888; 733904; 733932; 733936; 635567; 640052; 640155; 638655; 638753; 638774; 638731; 624643; 635785; 640275; 733929; 733891; 733925; 733195; 733853; 640275; 733136; 733136; 733903; 733915; 733927; 638649; 729422; 640271; 733900; 640273; 640050; 733895; 846135; 846224; 846078; 846950; 846075; 846579; 846252; 847428; 845670;	Graves	Inhumation	Stone Age: Middle Neolithic	55+		Quartz; tool debris	?	Child	sheep/goat; cow; rabbit; pig; bird; rodent; fish; dog; horse; lynx; hawk; fox	flint; amber beads; ceramic frags	modern disturbance
Sö Botkyrka Eriksberg 2:1 Alby Gr. 1	SHM 34926; (F16); (F5); (F6); (F2); (F28); (F4)	1194970; 1194971; 1194931; 1194919; 1194966; 1194967; 1194968; 1194955; 1194961; 1194944; 1194945; 1194951; 1194957; 1194958; 1194964; 1194953; 1194954; 1194956; 1194947	Stone setting Grave	double grave: cremation & inhumation	Stone - Bronze Age	13+	72.5+ g	Quartz; both tool debris & unprocessed	?	?	cow	ceramic vessel; 3 flint arrowheads; flint; natural stone (3 cats.)	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Sö Eskilstuna Kvarteret Diligensen Gr. 2	SHM 34006 (F34)	373160	Stone setting grave	Cremation?	Older Iron Age	1	?	quartz	?	?	?	slag; ceramic vessel frags	N/A
Sö Eskilstuna Lagersberg 1:3 Lagersberg, Galtbacken Gr. 368	SHM 34420 (F3472); (F3476); (F3477); (F3544); (F3545); (F3548); (F3549); (F3552); (F3562); (F3816); (F3817); (F3818); (F3821); (F3822); (F3824); (F3825); (F1000388); (F1000391)	926302; 926728; 926725; 926300; 926301; 926307; 926308; 926311; 926312; 926315; 926316; 926325; 926326; 926327; 926328; 926329; 926330; 926331;	Grave	Cremation?	Bronze Age	30+	182g	White quartz	?	?	?	burnt clay	N/A
Sö Eskilstuna Lagersberg 1:3 Lagersberg, Galtbacken Gr. 389	SHM 34420; (F4494); (F4216)	926342; 926339	Grave	?	Bronze Age	9+	2+g	quartz	?	?	?	Burnt clay	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Sö Eskilstuna Lagersberg 1:3 Lagersberg, Galtbacken Gr. ?	SHM 34420 (F4208); (F4333); (F12700); (F1000013); (F1000022); (F1000028); (F1000044); (F1000050); (F1000053); (F1000097); (F1000100); (F1000108); (F1000234); (F1000242); (F1000267); (F1000287); (F1000307); (F1000310); (F1000315); (F1000323); (F1000331); (F1000338); (F1000341); (F1000345); (F1000362); (F1000386); (F1000395); (F1000406); (F1000411); (F1000414); (F1000424); (F1000437); (F1000445); (F1000452); (F1000472); (F1000494); (F1000519)	926336; 34420; 926676; 926700; 926778; 926754; 926771; 34420; 926746; 926732; 926723; 926664; 926654; 926656; 926652; 926683; 926679; 926670; 926632; 926592; 926615; 926340; 926387; 926584; 926522; 926532; 926525; 926496; 926512; 926515; 926507; 926491; 926484; 926816; 926834 ; 926796; 926765	Grave	?	Bronze Age	72+	270.2g	White quartz	?	?	?	?	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Sö Härad Härads-Kumla 2:9 Härads-Kumla Gr. 18	SHM 34108 (F778)	485061	Grave	Cremation	No Date/ possibly Vendel-Viking Age	1	6g	rock crystal tool debris	?	?	rooster; sheep/goat; pig; horse; dog; pike; cow; small bird; rodent	21 bone game pieces; bronze broach style iii (700AD); bronze fitting; whetstone; flint strike-a-lite; steel; iron hook; decorated bone comb (Vendel); green glass vessel (Vendel); ceramics; iron link; glass beads; iron clasp/buckle	N/A
Sö Härad Härads-Kumla 2:9 Härads-Kumla Gr. 23	SHM 34108 (F777)	485085	Grave	Cremation	Iron Age	1	1g	rock crystal	?	?	cow; unburnt field mouse	25 frags of bone game pieces; 1 bone die; iron fitting plate w/rivet; ceramics; glass beads; iron ring	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Sö Härad Härads-Kumla 2:9 Härads-Kumla Gr. 25	SHM 34108 (F779)	485086	Grave	Cremation	Iron Age	27	9g	rock crystal	?	?	toad?; pig; sheep/goat; cow; dog; bird; goose	bone flywheel; 52 bone game pieces; 6 bone dice; decorated bone scraper; bone needle; bronze scales; bronze rivets; bronze rivet washers; bronze fittings; possible bronze broach; bronze pendant; bronze spriral beads; bronze beads; bronze broach (500/600AD); gold plate; whetstone (sandstone); cord decorated blue glass cup (Vendel); flint strike-a-lite; decorated hollow bone object; iron meat fork; decorated horn comb (Vendel); horn combs (Migration-Viking); horn comb case (Migration); green glass vessel (vendel); ceramics; glass beads; clay beads; decorated bone finger ring; gold twisted wire; wood; iron plow; ground granite	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Sö Torshälla Brunnsta 2:1 Brunnsta	SHM 34972	1199290	Grave	?	Migration Age - Vendel	1	1g	quartz	?	?	?	?	N/A
Sö Turinge Gläntan Gr. 310	SHM 34306:27:1096 (F1096); SHM 34306:27:1092 (F13); SHM 34306:27:1093; SHM 34306:27:1095 (F1095); SHM 34306:27:1094 (F7A)	403090; 403086; 403087; 403089; 403088	Death House	Cremation	Neolithic (c. 2300 BC)	5	518g	Yellowish quartz	?	?	sheep/goat	stones; flint; decorated ceramic vessels; bone awl; stone axes; miniature stone battle axe	.Along the walls of the house were 20 pits containing burnt remains of at least 8 children, men, women & sheep/goats.
Up Adelsö Björkö, Hemlanden Gr. Bj 26	SHM 34000:Bj 26	448550	Grave	Cremation	Viking Age	1	8.8g	Unprocessed clear rock crystal	?	?	dog, chicken	iron object; bone/horn bronze comb; ceramic; iron boat rivet; bronze ring; iron spike	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Up Adelsö Björkö, Hemlanden Gr. Bj 80A	SHM 34000:Bj 80a	462508	Mound Grave	Cremation	Viking Age	1	.2g	quartz	?	?	bird, dog, horse, chicken	iron thor's hammer ring; bronze fitting; iron fittings; bread; iron frags; bone comb; 3 bronze buttons; ceramic vessel; iron rivet (clinker?); 3 iron nails; yellow glass bead; silver ring; decorated bone/horn; bone/horn gaming piece (hammer, bronze, iron, beads, comb, buttons, ceramics, ring, decorated bone, gaming piece, bread cats.)	N/A
Up Adelsö Björkö, Hemlanden Gr. Bj 82B	SHM 34000:Bj 82b	462997	Mound grave	Cremation	Viking Age	2	73.6g	quartzite	?	?	?	whetstone; burnt clay; iron belt hook; iron object; bone/horn/bronze comb; ceramic vessel; 5 iron nails	N/A
Up Adelsö Björkö, Hemlanden Birka; Gr. 750	SHM 34000:Bj 750	?	Mound/ Chamber Grave	Inhumation	Viking Age	1	?	quartz	?	?	horse, cow, pig, sheep/goat, fish, bird, goose	iron sword; ceramics; burnt clay; iron rivets; whetstones; flint; glass bead; loom weight; iron objects; iron nails; iron needles; iron rivet plate; iron axe; slag; iron knife; copper scale; quartz; wood; glass frags; horn frags; horn comb	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Up Husby-Långhundra Hönsgärde 2:2 Hönsgärde	SHM 33946 (F7)	264038	Round stone setting grave	Cremation?	Viking Age?	1	109g	quartz	?	?	?	ceramics; burnt clay; whetstone; blue glass bead (Vik Age)	N/A
Up Fresta Grimsta 67:1 Grimsta Gr. A7	SHM 35107 (F2425:3)	1163243	Stone setting grave	?	Vendel - Viking Age	1	1.35g	quartz	?	?	?	ceramic vessel frags	N/A
Up Fresta Grimsta 67:1 Grimsta Gr. A13	SHM 35107 (F2323:3)	1163245	Stone setting grave	?	Vendel - Viking Age	9	?	quartz	?	?	?	bone/horn comb; burnt clay; threaded glass?; 9 glass beads; 5 iron nails; 21 iron rivets; 3 iron crampons?; ceramic vessel frags; bronze object	N/A
Up Litslena Graneberg 1:1 Graneberg Gr. 12	SHM 35249 (F17)	1331655; 1336527	Stone coffin grave	?	Iron Age	2	4g	quartz	M?	Adult (35-64 yrs).	?	?	N/A
	SHM 36192 (F1)	**Up Lovö Söderby Gr. 2**	Stone setting grave	Cremation?	Vendel Age	19	69g	quartz	?	?	?	bone/iron comb; natural knocking stone?; iron knife blade; iron crampon; ceramics; glass beads; iron shield buckle rivet; textile frag (Vendel)	N/A
Up Lovö Söderby Gr. 3	SHM 36192 (F1 I)	1300291	Stone setting grave	Cremation?	Vendel Age	5	?	Quartz tool debris	?	?	?	iron fitting; bronze sheet ; whetstone; bread; flint; burnt hazelnut; iron pendant (Vendel); horn/bone/iron comb; charcoal; ceramics; iron boat rivets; glass/bronze/rock crystal beads; glass beads; burnt textile frags (Vendel)	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Up Lovö Söderby Gr. 8	SHM 36192	1300294	Stone setting grave	Cremation?	Vendel Age	3	?	Quartz tool debris	?	?	?	2 bone/horn objects; bronze rivet washers; pyrite pendant; bone comb; copper chain link; ceramics; glass beads; bronze tube	N/A
Up Lovö Söderby Gr. 5	SHM 36192 (F2)	1300293	Stone setting grave	Cremation?	Vendel Age	2	?	Quartz tool debris	?	?	?	bone/iron comb; burnt clay; bread; flint; iron knife tang; iron crampon; ceramics; iron clothes needle; glass beads; bronze bead separator; bronze tube; iron rod; textile frag (Vendel)	N/A
Up Lovö Söderby Gr.10	SHM 36192 (F2); SHM 36192 (F1)	1300297; 1300290	Stone setting grave	Cremation?	Vendel Age	2	67+g	Quartz tool debris	?	?	?	bronze fitting; flint strike-a-light; bone comb; ceramics; iron needle; Belt of iron with oval frame; bronze wire; stone axe (BA PVI)	N/A
Up Lovö Söderby Gr. 13	SHM 36192 (F1)	1300292	Stone setting grave	Cremation?	Neolithic - Bronze Age PVI	18	100g	Quartz tool debris	?	?	?	red granite object (possible makeup); quartz scrapper	N/A
Up Lovö Söderby Gr. 27	SHM 36192	1300299	Stone setting grave	Cremation?	Vendel Age	?	55g	Quartz	?	?	dog	flint strike-a-light; bone comb; glass beads	N/A
Up Lovö Söderby Gr. 33	SHM 36192 (F1)	1300302	Stone setting grave	Cremation?	Viking Age	2	4.5x3.0x 1.6 cm; 59.3g	Quartz tool debris	?	?	?	ceramics	N/A
Up Lovö Söderby Gr. 34	SHM 36192 (F1)	1300301; 1300303	Stone setting grave	Cremation?	Viking Age	2	4.0x1.8 cm; 5.5x2.0x1.0 cm; 55g	quartz	?	?	?	flint; ceramics; iron spearhead	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Up Lovö Söderby Gr.38	SHM 36192 (F11)	1299200	Stone setting grave	Cremation?	probably Iron Age, but listed as Bronze Age PVI - 1900s	1	.01g	A small piece of square and uncut quartz, or possibly glass	?	?	?	2 natural knocking stones?; 7 stone objects; bronze arm ring; bronze spriral head needle; bronze spiral ring; resin; resin sealant; black ceramic with resin; burnt clay; bronze razor blade (BA PVI)	N/A
Up Lovö Söderby Gr. 39	SHM 35609 (F1:7)	1253652	Grave	Cremation?	Iron Age; possible Viking Age	1	?	Quartz tool debris	?	?	?	charcoal; 6 iron neck rings; iron hook; iron crampon; 42 glass beads; ceramic vessel frags; bone/horn/iron comb; burnt clay; granite; iron fitting for horse gear (Viking Age); flint strike-a-light; flint	N/A
Up Lovö Söderby Gr. 42	SHM 35013 (F1 II)	1253437	Grave	Cremation?	Iron Age	1	?	Quartz tool debris	?	?	?	wooden prong; 10 iron rivets; burnt clay; charcoal; bone/horn/iron comb; resin	N/A
Up Lovö Söderby Gr. 43	SHM 35013 (F1 I)	1253436	Grave	Cremation	Iron Age	1	?	quartz	?	?	?	charcoal; bone/horn/iron comb; 20 glass beads; ceramic vessel frags; burnt clay; iron boat rivet; 43 iron rivets	N/A
Up Lovö Söderby Gr. 46	SHM 35013 (F4 VII)	1253435	Grave	Cremation	Iron Age	1	?	Quartz tool debris	?	?	?	organic object; bone flywheel; ceramic vessel; bronze object; flint; 17 iron rivets; 3 knack stones; bone/horn/iron comb; 3 iron objects; slag; charcoal; burnt clay; 2 glass beads; 40 iron objects	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Up Lovö Söderby Gr. 61	SHM 36192 (F1)	1300306	Stone setting grave	Cremation?	Viking Age	1	6.5x4.5x 4.0 cm; 158g	quartz	?	?	dog	iron horse crampon; whetstone; flint strike-a-light; bone comb	N/A
Up Lovö Söderby Gr. 65B	SHM 36192 (F1 I)	1300295	Grave	Cremation?	Probably Iron Age	?	?	Quartz tool debris	?	?	?	?	N/A
Up Lovö Söderby Gr. 72Up	SHM 36192	1300307	Stone setting grave	Cremation?	Vendel	14	?	quartz	?	?	?	bark; flint strike-a-light; glass beads; bronze scale; textile frags (Vendel)	N/A
Up Lovö Söderby Gr. 76	SHM 36192	1300298	Stone setting grave	Cremation?	Viking Age	3	?	Quartz tool debris	?	?	Dog	flint; iron fitting; iron crampon; bronze object decorated w/animal figures; burnt hazelnut; 2 bone combs; decorated bone comb case; bronze beads; glass beads; bronze ring (Viking); bronze broach (migration); iron clasps	N/A
Up Lovö Söderby Gr. 79	SHM 36192	1300296	Stone setting grave	Cremation?	Viking Age	18	c. 2.0-2.5 cm	Quartz tool debris	?	?	Cat, dog	flint; burnt hazelnut; ceramics; glass beads; iron rod; iron thor's hammer ring	N/A
Up Sollentuna Edsbacka Gr. 2	SHM 34116:48 (F3)	373635	Oval stone setting grave	Cremation	Migration - Vendel	23	?	quartz	?	?	bear; sheep/goat	bone comb; bronze sword hilt; bronze clasp; bronze scale; bronze frag; iron fitting; 2 iron nails; 1 iron rivet; iron bar; bread; resin; slag; bronze sheet	N/A
Up Sollentuna Edsbacka Gr. 6	SHM 34116:26 (F2)	373492	Mound Grave	Cremation?	Younger Iron Age	5	?	quartz	?	?	?	charcoal; iron nails; iron rivets; flint; ceramic vessel; bone comb; iron nails; food remains	quartz found in bone layer

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Up Sollentuna Vindruvan 1 Östra Viby	SHM 35110 (F5108:1)	1209814	Grave	Cremation?	Pre-Roman Iron - Migration Age	1	?	quartz	?	?	?	N/A	N/A
Up Sundbyberg Rissne Gr. 1	SHM 34762 (F6); (F16)	604447; 604510	Mound Grave	Mix	Viking Age	8	60+ g	quartz	?	?	sheep; cow; dog	ceramic vessel frag; 2 silver coins; resin; sanded stone?; burnt clay; 3 iron objects; slag; 5 iron nails; clay crucible/pot; 1 natural stone; bronze object (possible coin)	Burnt & unburnt bone
Up Uppsala Rickomberga Gr. 179	SHM 34162 (F9)	265927	Grave	Cremation	Older Iron Age	1	1.9g	quartz	F/M	Juvenile/ Adult	?	resin; bone comb	w/urn
Up Uppsala Rickomberga Gr. 180	SHM 34162 (F13)	265932	Grave	Cremation	Older Iron Age	2	3.5g	quartz	?	?	?	iron frag	N/A
Up Uppsala Södra Gottsunda Gr. 1	SHM 34138:5 (F8)	407925	Stone setting grave	Cremation	Bronze Age P.III-IV	19	19g	quartz	?	?	?	bronze razor; resin	N/A
Up Täby Arninge 4:1 Ullnatippen Gr. 338	SHM 35156 (F19)	1209935	Round stone setting grave	Cremation	Younger Bronze - Older Iron Age	1	1g	Processed quartz	?	?	?	3 glass frags	N/A
Up Täby Norrortsleden Gr. 6	SHM 34783 (F19); (F18)	1324159; 1324158	Grave	?	Bronze - Iron Age	2	8.5g	Processed quartz	?	?	?	?	N/A
Up Vaksala Inhåleskullen Grave Gr. 1200	RAÄ-nummer 155:1	F156	Grave	Cremation	Late Vendel - Early Viking Age	1	?	Bunt quartz	?	?	sheep/goat, cow	iron weight, ceramics	N/A

Site Name	Site Num.	Artifact Num.	Context	Cremation/ Inhumation	Time Period	Count	Size & Weight	Type	M/F Human	Age of Human(s)	Animals Present	Artifacts Present	Notes
Vg Tun Såtenäs Gr. 62	SHM 22276:62	272595	Grave	?	Stone Age or Iron Age	1	?	Quartz	?	?	?	flint; ceramic vessel	found in connection with Viking Age graves and some Stone Age material; was interpreted as Stone Age, but could be Viking Age

APPENDIX L

SÓLVEIG BECK'S ANALYSES OF ICELANDIC STONES IN GRAVES

Location	Finds No.	Qty	Context	Site Type	Rock Type	Color	Shape	Formation Processes	Geological Environs	Notes
Austarihóll	1964:265	1	?	Grave	Zeolite	Yellowy white, hints of dark green in pitted holes	Lumpy, rounded	Amygdale, water worn	On the east side of Flókadalur, Flókadalsá/Flókadalsvatn run through/in the valley, Tertiary bedrock where zeolites and quartz amygdales are common, low geothermal heat in the area. In the mountains west of the valley there are faint remants of an extinct central volcano	N/A
Ytra-Garðshorn	1958:65	1	?	Grave, stone setting	Quartz, milky (?)	White	Rounded	Amygdale, water worn (?)	Svarfaðardalur, western banks of Svarfaðardalsá in a narrow valley, Tertiary bedrock where zeolites and quartz amygdales are common, low geothermal heat in the area.	Said to be milky white, very likely quartz, NO ID either in person or from photo
	1958:93	3	?	Grave, stone setting	Quartz, onyx	White and translucent white banding	Fragments, angular	Amygdales	""	N/A
	1958:93	2	?	Grave, stone setting	Quartz	One white, one orange brown and white	Kidney shaped and oval, both rounded	Amygdales, water worn	""	N/A
	1958:93	52	?	Grave, stone setting	Quartz	Mixture of white, translucent grayish white and mid-brown/orange	Oval to jelly bean shaped, rounded	Amygdales, water worn	""	N/A
	1958:101	1	?	Grave	Quartz, possibly botryoidal chalcedony	Pearlescent-white	Flattened on opposite sites, rounded	Amygdales, water worn	""	N/A

Location	Finds No.	Qty	Context	Site Type	Rock Type	Color	Shape	Formation Processes	Geological Environs	Notes
Syðri-Bakki, *Kumlholt*	KUM06-2	1	2	Very disturbed grave	Quartz	white	Smooth, drop shaped rounded tiny pebble, pitted surface	Amygdale, water worn	Grave filling and coastal sediments on site partly sandy gravel, could well have been a natural part of local geology/filling. Tiny size counts against them being deliberately placed in grave. Disturbances make it impossible to ascertain either way. How large would the pebbles have to be to be meaningful? For a child a tiny sphere could be large.	N/A
	KUM06-2	1	2	“”	Quartz, onyx	Laminar white and brownish light gray	Angular flake	Amygdale	“”	N/A
	KUM06-5	1	3	“”	Quartz	?	Smooth, rounded, tiny pebble	Amygdale, water worn	“”	N/A
	KUM06-5	1	3	“”	Quartz	?	Smooth, rounded, tiny pebble	Amygdale, water worn	“”	N/A
	KUM06-5	1	3	“”	Zeolite or Calcite	White, matted surface with reddish haze	Smooth, rounded, tiny pebble	Amygdale, water worn	“”	N./A
Syðri-Bakki *Dysnes*	2017-14-144	1	?	Chamber mound, disturbed, fill	Quartz	Semi-translucent gray with an orange tint	Smooth, rounded pebble, pitted surface	Amygdale, water worn	Same coastal area as Kumlholt, gravelly coastal sediments and soils. Larger pebbles, rounded. Could have been placed in the graves.	N/A
	2017-14-988	1	?	Chamber mound, disturbed, in sediment w. coffin remains	Quartz, onyx	Laminar white and brownish light gray	Angular flake, one smooth surface	Broken amygdale, water worn?	“”	N/A
	2017-14-1058	1	?	In post setting of chamber grave	Quartz	Translucent grey, white and caramel brown, partially laminar	Pebble, most edges rounded and smooth	Amygdale, water worn	“”	N/A

Location	Finds No.	Qty	Context	Site Type	Rock Type	Color	Shape	Formation Processes	Geological Environs	Notes
Sílastaðir	13733	1	?	Grave, stone setting	Zeolite, possibly scolecite	Grayish white, spots of orange-brown and dark brown	Fragment, angular, clear thin and radiating crystal forms	Amygdale	Syðri-Bakki and Sílastaðir are both on the western side of Eyjafjörður very close to the coast, Tertiary bedrock where zeolite and quartz amygdales are common, North and South of the Hörgá river (a little way away) that has many tributaries running down through the mountains. In the mountains south and southwest of Hörgárdalur there is an extinct central volcano.	N/A
	13733	1	?	“”	Calcite/ claystone (?)	Light brown	Fragment, angular	Unclear	“”	N/A
	13733	1	?	“”	Calcite/ claystone (?)	Light brown	Fragment, angular	Unclear	“”	N/A
	13744	1	?	“”	Quartz	Grayish white, semi-transparent	Perfectly rounded sphere	Amygdale, water worn	“”	ID from photo
Hofstaðir *HST2010*	HSM-X-104-38	1	38	Early Christian grave, mouth of skeleton	Quartz	Translucent gray	Smooth, rounded pebble	Amygdale, water worn	Around Lake Mývatn, location with areas of both low and high geothermal heat close by, volcanically active zone. River Kráká that runs into Laxá close to Geirastaðir to the south has her source a long way away in the highlands in the south, comes from under Ódáðahraun lava field close to Askja volcano. Can pick up and transport all kinds of goodies on her way.	Younger geological bedrock
	HSM-X-104-38	1	38	“”	Quartz	White	Smooth, rounded pebble	Amygdale, water worn	“”	“”
Geirastaðir, *Kumlabrekka*	KBR14-T1	1	31	Disturbed site, next to boat grave	Quartz	Translucent gray	Smooth, rounded pebble, faintly pitted surface	Amygdale, water worn	“”	Younger geological bedrock; At water’s edge, Mývatn
Straumur	15233	1	?	Boat grave?	Possibly zeolite	Light brownish white	Tiny rounded ovals	Amygdale, water worn	West bank of Lagarfljót (large and long river) with many tributaries, Tertiary bedrock, where zeolites and quartz minerals are common. Many small lakes along the river in this lowland area.	N/A
	15233	1	?	Boat grave?	Possibly zeolite	Grayish to light brownish white	Tiny rounded ovals	Amygdale, water worn	“”	N/A

Location	Finds No.	Qty	Context	Site Type	Rock Type	Color	Shape	Formation Processes	Geological Environs	Notes
Ketilsstaðir	12444	1	?	Grave	Quartz, possibly botryoidal chalcedony (?)	Light blue and semi-translucent	Elongated, irregular cone shape, cumulated rounded drops, fragmented at wider end where it has broken off	Stalactite	West bank of Selfljót, Tertiary bedrock, where zeolites and quartz minerals are common.	Origin unclear, could be Icelandic, could be foreign. Don't know of any caves in the East where this could have formed.
Kornhóll *Skansinn*	1992-69-4	1	?	Disturbed grave, possibly at waist height	Quartz, likely opal	Pale brownish gray with dark reddish brown weathering coat	Irregular angular shape, rounded edges	Amygdale, water worn	Vestmannaeyjar, volcanically active area, geothermal heat below the surface	N/A
Karlsnes	11360/1932-68	1	?	Grave	Quartz	Transparent to translucent gray	Oblong flake, angular	Amygdale	Southern bank of Þjórsá, runs through Iceland's volcanically active zone, gets water e.g. from the high geothermal area around Torfajökull.	ID from photo; Id as Iceland Spar but I highly doubt it is anything other than quartz.
Selfoss	1958:42	1	?	Grave	Calcite	White, semi-transparent	Rounded	Amygdale?	Southern bank of Ölfusá, she and her tributaries run through a vast expanse of geologically and geothermally active area.	N/A
	1958:43	1	?	Grave	Quartz, onyx?	Gray, very faint gray and whitish gray banding, pitting on surface	Rounded oval	Amygdale, likely water worn	""	N/A
Hafurbjarnarstaðir	13669	1	?	Grave, stone setting	Quartz (?)	Grayish black	Very rounded oval, pitted	Amygdale?, water worn	Northeast tip of Reykjanes, very geologically active area, high geothermal areas along all of Reykjanes, farm on the sea shore, easy to hunt for rounded stones along the coastline. This zeolite find however is more likely to have originated from outside the Reykjanes peninsula from areas with Tertiary basalt formations.	ID from photo

Location	Finds No.	Qty	Context	Site Type	Rock Type	Color	Shape	Formation Processes	Geological Environs	Notes
	13670	1	?	Grave, stone setting	Zeolite, dark flecks could be parent rock	White with dark flecks	Elongated, rounded	Amygdale, water worn	“”	ID from photo but fairly confident it’s a zeolite
Vatnsdalur	1964:113	1	?	Boat Grave	Zeolite/ Calcite?	Brownish light gray	Roughly drop shaped with hole through middle	Amygdale, likely water worn	Old farm site close to the sea shore and river runs through the narrow valley from the mountains to the sea, Tertiary bedrock where zeolites and quartz minerals are common amygdales,	ID from photo

APPENDIX M

PICTURES OF QUARTZ/WHITE STONES FROM ICELANDIC BURIALS

Selfoss; Árnessýsla; Grave 1

Dysnes 2017; Eyjafjarðarsýsla; Gr. 122
DYS- 2017-14-1058

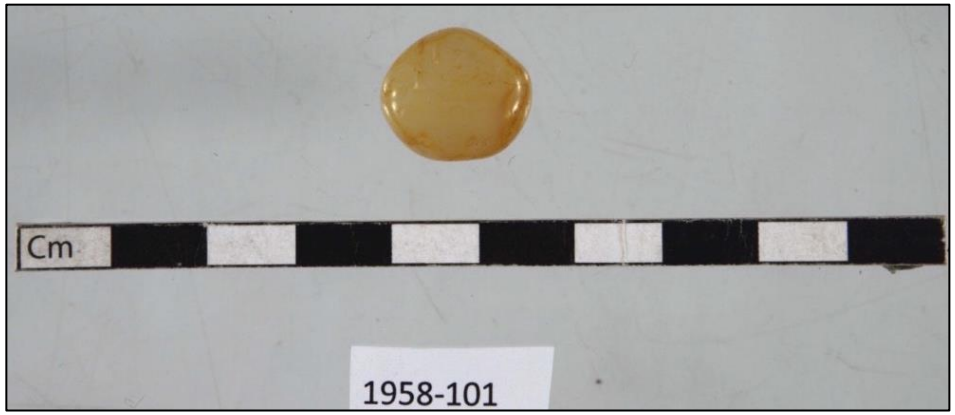
Dysnes 2017; Eyjafjarðarsýsla; Gr. 127
DYS-2017-14-144

Dysnes 2017; Eyjafjarðarsýsla; Gr. 122
DYS-2017-14-988

Silastaðir; Eyjafjarðarsýsla; Grave 3


Syðri-Bakki (Kumlholt); Eyjafjarðarsýsla
KUM06 -002-2

Ytra-Garðshorn; Eyjafjarðarsýsla; Grave 9



Ytra-Garðshorn; Eyjafjarðarsýsla; Grave 10

Straumur; Norður-Múlasýsla; Grave 1

Austarihóll; Skagafjarðarsýsla

Hofstaðir Medieval Cemetery, Suður-Þingeyjarsýsla, Gr. 104X

Hofstaðir Medieval Cemetery, Suður-Þingeyjarsýsla, Gr. 104X


Geirastaðir (Kumlabrekka); Suður-Þingeyjarsýsla KBR 14-T1-31-1

Kornhóll; Vestmannaeyjar; Grave 2

REFERENCES

Databases

Historiska museet.
2020. “Historiska Museet Samlingarna.” Database. Last accessed 05/29/2020. http://mis.historiska.se/mis/sok/sok.asp

Hudson Institute of Mineralogy.
2020. “Mindat.Org.” Database. Last accessed 05/29/2020. https://www.mindat.org/.

Kultur Ministeriet.
2020. “Kulturarvs Databaserne.” Database. Last accessed 05/29/2020. https://slks.dk/omraader/kulturarv/kulturarvsdatabaserne/.

Landsbókasafn Íslands – Háskólabókasafn.
2020. “Handrit.” Database. Last accessed 05/29/2020. https://handrit.is/.

Lethbridge, Emily.
2020. “Icelandic Saga Map.” Database and Map. http://sagamap.hi.is/is/.

Pálsson, Gísli et al.
2020. “Jarðabókin.” Database. The Icelandic Historical Geographic Information System. http://jardabok.com/.

Universitetsmuseenes.
2020. “Universitetsmuseenes Samlingsportaler.” Database. Last accessed 05/29/2020. https://www.unimus.no/

Þjóðminjasafn Íslands.
2020. “Sarpur Menningarsögulegt Gagnasafn.” Database. Last accessed 05/29/2020. https://www.sarpur.is.

Þórðarson, Sveinbjorn.
2020. “The Icelandic Saga Database.” Database. Last accessed 05/29/2020. https://sagadb.org/.

Primary Sources

Biskupa Sögur

1858. *Biskupa Sögur*. Hinu Islenzka Bókmentafélagi. Vol. 1. Copenhagen: S.L. Möllers.

1942. *The Life of Gudmund the Good, Bishop of Holar*. Translated by Gabriel Turville-Petre and G.S. Olszewka. Viking Society for Northern Research, Translations series 3. Berkeley: University of California Press.

Bósa saga ok Herrauds

1830. "Saga Herrauðs Ok Bósa." In *Fornaldarsögur Norðrlanda: Bd. Saga Gautreks Konúngs. Saga Ag Hrólfi Konungi Gautrekssyni. Saga Herrauðs Ok Bósa. Gaungu-Hrólfs Saga. Saga Egils Ok Asmundar. Sörla Saga Sterka. Hjalmters Ok Ölvers Saga. Halfdanar Saga Eysteinssonar. Halfdanar Saga Brönufóstra. Sturlaugs Saga Starfsama. Illuga Saga Grídarfostra. Ereks Saga Vídförla*, edited by Carl Christian Rafn. Vol. 3. 3 vols. Copenhagen: Hið norræna fornfræðafélag.

Den vises sten

1900. *Den vises sten: En hittils okänd rimdikt från 1300-talet, efter en upsalahandskrift från år 1379*, edited by Robert Geete. Småstycken på forn svenska, andra serien. Stockholm: Svenska fornskriftsällskapet.

Eddukvæði

1797. *Icelandic Poetry, or The Edda of Saemund.* Translated by A.S. Cottle. Bristol: N. Briggs.

1936. *The Poetic Edda: Translated from the Icelandic with an Introduction and Notes*. Translated by Henry Adams Bellows. Princeton: Princeton University Press.

1976. *Eddukvæði.* Edited by Ólafur Briem. Skáholt: Hafnarprent.

2008. *Poetic Edda*. Edited and translated by Carolyne Larrington. Oxford: Oxford Paperbacks.

Eiríks Saga Rauða

1935. "Eiríks Saga Rauða." In *Eyrbyggja Saga.* Edited by Einar Ól. Sveinsson, Matthías Þórðarson, and Ólafur Halldórsson. Íslensk fornrit 4. Reykjavík: Hið norræna fornfræðafélag.

2001. "Eirik the Red's Saga." In *The Sagas of Icelanders*, edited by Örnólfur Thorsson, translated by Keneva Kunz. New York: Penguin Books.

Fornaldarsögur Norðrlanda

1950a. *Fornaldar sögur norðurlanda*. Edited by Guðni Jónsson. Vol. 1. 4 vols. Reykjavik: Íslendingasagnaútgáfan.

1950b. *Fornaldar sögur norðurlanda*. Edited by Guðni Jónsson. Vol. 2. 4 vols. Reykjavik: Íslendingasagnaútgáfan.

1950c. *Fornaldar sögur norðurlanda*. Edited by Guðni Jónsson. Vol. 3. 4 vols. Reykjavik: Íslendingasagnaútgáfan.

1950d. *Fornaldar sögur norðurlanda*. Edited by Guðni Jónsson. Vol. 4. 4 vols. Reykjavik: Íslendingasagnaútgáfan.

Fornmanna Sögur
1825. *Fornmanna Sögur*. Vol. 1. 3 vols. Copenhagen: Hið norræna fornfræðafélag.
1826. *Fornmanna Sögur*. Vol. 2. 3 vols. Copenhagen: Hið norræna fornfræðafélag.
1827. *Fornmanna Sögur*. Vol. 3. 3 vols. Copenhagen: Hið norræna fornfræðafélag.

Galdrabók
1989. *The Galdrabók: An Icelandic Grimoire*. Edited and translated by Stephen Flowers. York Beach, Maine: Samuel Weiser, Inc.

Grágás:
1952. *Grágás: Elzta Lögbók Islendinga*. Edited by Vilhjálmi Finsen. Copenhagen: Berlingum.
1980. *Laws of Early Iceland: Grágás I*. Edited and translated by Andrew Dennis, Peter Foote, and Richard Perkins. Vol. 3. 5 vols. The University of Manitoba Press Icelandic Studies. Winnipeg: University of Manitoba Press.
2000. *Laws of Early Iceland: Grágás II*. Edited and translated by Andrew Dennis, Peter Foote, and Richard Perkins. Vol. 4. 5 vols. The University of Manitoba Press Icelandic Studies. Winnipeg: University of Manitoba Press.

Göngu-Hrólfs saga
1830. "Gaungu-Hrólfs Saga." In *Fornaldarsögur Norðrlanda: Bd. Saga Gautreks Konúngs. Saga Ag Hrólfi Konungi Gautrekssyni. Saga Herrauðs Ok Bósa. Gaungu-Hrólfs Saga. Saga Egils Ok Asmundar. Sörla Saga Sterka. Hjalmters Ok Ölvers Saga. Halfdanar Saga Eysteinssonar. Halfdanar Saga Brönufóstra. Sturlaugs Saga Starfsama. Illuga Saga Grídarfostra. Ereks Saga Vídförla*. Edited by Carl Christian Rafn. Vol. 3. 3 vols. Copenhagen: Hið norræna fornfræðafélag.

Hálfdanar Saga Eysteinsson
1830. "Halfdanar Saga Eysteinssonar." In *Fornaldarsögur Norðrlanda: Bd. Saga Gautreks Konúngs. Saga Ag Hrólfi Konungi Gautrekssyni. Saga Herrauðs Ok Bósa. Gaungu-Hrólfs Saga. Saga Egils Ok Asmundar. Sörla Saga Sterka. Hjalmters Ok Ölvers Saga. Halfdanar Saga Eysteinssonar. Halfdanar Saga Brönufóstra. Sturlaugs Saga Starfsama. Illuga Saga Grídarfostra. Ereks Saga Vídförla*. Edited by Carl Christian Rafn. Vol. 3. 3 vols. Copenhagen: Hið norræna fornfræðafélag.
2005. "Halfdan Eysteinsson" In *Seven Viking Romances*. Translated by Hermann Pálsson and Paul Edwards. London: Penguin Books.

Haukur Erlendsson.
1892. *Hauksbók: Udg. Efter de Arnamagnæanske Håndskrifter No. 371, 544 Og 675, 4to Samt Forskellige Papirhåndskrifter*. Edited by Eiríkur Jónsson and Finnur Jónsson. Copenhagen: Thieles Bogtrykkeri.

Haukur Jóhannesson.
2014. "Geological Map of Iceland: Bedrock Geology." 1:600,000. Reykjavík: Náttúrufræðistofnun Íslands.

Heiðarvíga saga
1892. *The Saga of the Heath Slayings*. Translated by William Morris and Eiríkr Magnússon. Vol. 2, The Saga of the Ere-Dwellers, The Story of the Heath-Slayings. The Saga Library. London: Bernard Quaritch.
1938. "Heiðarvíga saga." In *Borgfirðinga Sögur*. Edited by Sigurður Nordal and Guðni Jónsson. Íslensk fornrit 3. Reykjavík: Hið norræna fornfræðafélag.

Hervarar saga ok Heiðreks
1921. "The Saga of Hervör and Heithrek." In *Stories and Ballads of the Far Past: Translated from the Norse (Icelandic and Faroese) with Introductions and Notes*. Edited and translated by Nora Kershaw. Cambridge: Cambridge University Press.

Jóhannes úr Kötlum.
1932. *Jólin Koma: Kvæði Handa Börnum: Mea Myndum Eftir Tryggva Magnússon*. Reykjavik.

Jón Árnason.
1862. *Íslenzkar Þjóðsögur Og Aefintyri*. Vol. 1. Leipzig: J.C. Hinrichs's Bókaverzlunar.
1975. "*The Rev. Eirikr of Vogsosar*" In *Legends of Icelandic Magicians*. Jaqueline Simpson. Cambridge: D.S. Brewer and Rowman and Littlefield
2004. *Icelandic Folktales & Legends*. Edited and translated by Jaqueline Simpson. 2nd ed. Great Britain: Tempus Publishing.

Kormáks Saga
1902. *The Life and Death of Cormac the Skald: Or, Kormak's Saga*. Translated by Jón Stéfanssón and William G. Collingwood. London: Forgotten Books.
1939. "Kormáks Saga." In *Vatnsdæla Saga*. Edited by Einar Ól. Sveinsson. Íslensk fornrit 8. Reykjavík: Hið norræna fornfræðafélag.

Laxdæla Saga
1934. "Laxdæla Saga." In *Laxdæla Saga*. Edited by Einar Ól. Sveinsson. Íslensk fornrit 5. Reykjavík: Hið norræna fornfræðafélag.
2001. "The Saga of the People of Laxardal." In *The Sagas of Icelanders*, edited by Örnólfur Thorsson, translated by Keneva Kunz. New York: Penguin Books.

Ólafur Davíðsson, ed.
1903. *Icelandic Magic Symbols and Spell Books*. Translated by Justin Foster in 2015. Published on the web. https://www.academia.edu/14166251/Icelandic_Magic_Symbols_galdrastafir_and_Spell_Books_galdrab%C3%A6kur_-_An_Annotated_English_Translation.

Orkneyinga Saga
1873. *Orkneyinga Saga*. Translated by Jón A. Hjaltalín and Gilbert Goudie. Edinburgh: Edmonston and Douglas.
1913-1916. *Orkneyinga Saga*. Edited by Sigurður Nordal. Samfund til udgivelse af gammel nordisk litteratur 40. Copenhagen.

Norna-Gests þáttr
1829a. “Söguþáttr af Norna-Gesti.” In *Fornaldarsögur Norðrlanda: Bd. Saga Af Hrólfi Konúngi Kraka. Völsúnga Saga. Saga Af Ragnari Konúngi Lodbrók Ok Sonum Hans. Krákumál. Söguþáttr Af Norna-Gesti. Þáttr Af Ragnars Sonum. Sögubrut Af Nokkrum Fornkonúngum. Sörla Þáttr. Hervarar Saga Ok Heidreks Konúngs*. Edited by Carl Christian Rafn. Vol. 1. 3 vols. Copenhagen: Hið norræna fornfræðafélag.
1921. “The Tháttr of Nornagest.” In *Stories and Ballads of the Far Past: Translated from the Norse (Icelandic and Faroese) with Introductions and Notes*. Edited and translated by Nora Kershaw. Cambridge: Cambridge University Press.

Snorri Sturluson.
1988. *Snorri Sturluson Edda*. Edited and translated by Anthony Faulkes. London: Everyman.
1998. *Edda: Skáldskaparmál.* Edited by Anthony Faulkes. Viking Society for Northern Research. London: University College London.
2005. *Edda: Prologue and Gylfaginning*. Edited by Anthony Faulkes. 2nd ed. Viking Society for Northern Research. London: University College London.

Stúfs Þáttr Hinn Meiri
1934. “Stúfs Þáttr” In *Laxdæla Saga.* Edited by Einar Ól. Sveinsson. Íslensk fornrit 5. Reykjavík: Hið norræna fornfræðafélag.

Þorsteinn þáttur bæjarmagns
1827. “Þorsteinn þáttur bæjarmagns” In *Fornmanna Sögur*. Vol. 3. 3 vols. Copenhagen: Hið norræna fornfræðafélag.
2005. “Thorstein Mansion-Might” In *Seven Viking Romances*. Translated by Hermann Pálsson and Paul Edwards. London: Penguin Books.

Þorsteins saga Víkingssonar
1829b. *Fornaldarsögur Norðrlanda*. Edited by Carl Christian Rafn. Vol. 2. 3 vols. Copenhagen: Hið norræna fornfræðafélag.
1877. “The Saga of Þorstein Víkingr's Son” In *Viking Tales of the North. The Sagas of Thorstein, Viking’s Son, and Fridthjof the Bold*. Edited and translated by Rasmus Björn Anderson. Chicago: S. C. Griggs and Co.

Þórðar saga hreðu
1959. “Þórðar saga hreðu” In *Kjanalnesinga Saga.* Edited by Jóhannes Halldórsson. Íslensk fornrit 14. Reykjavík: Hið norræna fornfræðafélag.

Vatnsdæla Saga
1939. “Vatnsdæla Saga.” In *Vatnsdæla Saga.* Edited by Einar Ól. Sveinsson. Íslensk fornrit 8. Reykjavík: Hið norræna fornfræðafélag.
2001. “The Saga of the People of Vatnsdal.” In *The Sagas of Icelanders*. Edited by Örnólfur Thorsson, translated by Andrew Wawn. New York: Penguin Books.

Secondary Sources

Adams Bellows, Henry.
1936. "Introduction." In *The Poetic Edda: Translated from the Icelandic with an Introduction and Notes*. Translated by Henry Adams Bellows, xi-xxvii. Princeton: Princeton University Press.

Andersen, S. H. and H. Madsen.
1984. "Et Førromersk Bron- Zestøbefund Fra Vitved i Østjylland." *Hikuin* 10.

Andersson, Gunnar.
2005. "With Thor on Our Side: The Symbolism of the Thor's Hammer-Ring in Viking Age Burial Ritual." In *Dealing with the Dead: Archaeological Perspectives on Prehistoric Scandinavian Burial Rites*, edited by Tore Artelius and Fredrik Svanberg, 45-62. Riksantikvariambetet Arkeologiska Undersokning 65. Stockholm: Riksantikvarieämbetet.

Andersson, Maria.
1993. "Kattalog: En Studie Av Den Svenske Tamkattens Tidiga Historia." Unpublished BA, Lund: Lunds Universitet.

Andrén, Anders.
1998. *Between Artifacts and Texts. Historical Archaeology in Global Perspective*. New York: Springer Science & Business Media.
2001. "Förhållandet mellan texter, bilder och ting." In *Nordisk Hedendom. Et symposium*, edited by Gro Steinsland et al., 19-39. Odense: Odense Universitetsforlag.
2007. "Behind 'Heathendom': Archaeological Studies of Old Norse Religion." *Scottish Archaeological Journal* 27 (2): 105–38.
2014. *Tracing Old Norse Cosmology: The World Tree, Middle Earth, and the Sun from Archaeological Perspectives*. Vägar Till Midgård 16. Lund: Nordic Academic Press.

Andrén, Anders, Kristina Jennbert, and Catharina Raudvere, eds.
2006. *Old Norse Religion in Long-Term Perspectives: Origins, Changes and Interactions*. Vägar Till Midgård 8. Lund: Nordic Academic Press.

Ankarloo, Bengt, Stuart Clark and E. William Monter.
2002. *Witchcraft and Magic in Europe*, edited by Bengt Ankarloo and Stuart Clark. Vol. 4: The Period of the Witch Trials. Philadelphia: University of Pennsylvania Press.

Arne, T.J.
1919. "Stendösar från järnåldern." *Fornvännen* 14: 127–39.

Artelius, Tore, and Fredrik Svanberg, eds.
2005. *Dealing with the Dead. Archaeological Perspectives on Prehistoric Scandinavian Burial Ritual*. Riksantikvariambetet Arkeologiska Undersokning, Skrifter 65. Stockholm: The Swedish National Heritage Board.

Arthur, Robbie, Jenny Murrary, and Anna Ritchie.
2014. “Painting the Stones Black: Solving the Mystery of Painted Quartz Pebbles.” *Archaeology Reports Online* ARO12.

Ashman Rowe, Elizabeth.
2007. “Þorsteins Þáttr Uxafóts, Helga Þáttr Þórissonar, and the Conversion Þættir.” *Scandinavian Studies* 76(4): 459-474.

Barrowclough, D.
2014. *Time to Slay Vampire Burials? The Archaeological and Historical Evidence for Vampires in Europe.* Cambridge: Red Dagger Press.

Barth, Fredrik.
1987. *Cosmologies in the Making: A Generative Approach to Cultural Variation in Inner New Guinea*. Cambridge: Cambridge University Press.

Bell, Catherine M.
1992. *Ritual Theory, Ritual Practice*. Oxford: Oxford University Press.

Bell, W.T., and Astrid E. J. Ogilvie.
1978. “Weather Complications as a Source of Data for the Reconstruction of European Climate During the Medieval Period.” *Climate Change* 1: 331-348.

Benediktsson, Karl.
2007. “‘Scenophobia’, Geography and the Aesthetic Politics of Landscape.” *Geogr. Ann.* 89B (3): 203-217.

Berlin, Brent, and Paul Kay.
1969. *Basic Color Terms: Their Universality and Evolution*. The David Hume Series. Berkeley: University of California Press.

Bernström, J. 1963. “Katt.” *Kulturhistorisk leksikon for nordisk middelalder* 8: 362-367.

Berteselli, Greta Veronica, Barbara Regaiolli, Simona Normando, Barbara De Mori, Cesare Avesani Zaborra, Caterina Spiezic.
2014. “What Do Domestic Cats Have in Common with European Wildcats?” *Journal of Veterinary Behavior Clinical Applications and Research* 9 (6): 35-40.

Binford, Sally R. and Lewis Roberts Binford.
1968. *New Perspectives in Archaeology*. Chicago: Aldine Publishing Company.

Bitz-Thorsen, Julie, and Anne Birgitte Gotfredsen.
2018. “Domestic Cats (Felis Catus) in Denmark Have Increased Significantly in Size since the Viking Age.” *Danish Journal of Archaeology* 7 (2): 241–54.

Boberg, Inger M.
1966. *The Motif Index of Early Icelandic Literature*. Copenhagen: Munksgaard.

Boessneck, Joachim, Anegela von den Driesch and Lisa Stenberger.
1979. *Eketorp: Befestigung Und Siedlung Auf Öland/Schweden; Die Fauna.* Stockholm: Kungl. Vitterhets Historie och Antikvitets Akademien.

Boivin, Nicole.
2004. "From Veneration to Exploitation. Human Engagement with the Mineral World." In *Soils, Stones and Symbols. Cultural Perceptions of the Mineral World*, edited by Nicole Boivin and M. A. Owoc, 1-29. London: University College London.

Bolender, Douglas J.
2007. "House, Land, and Labor in a Frontier Landscape: The Norse Colonization of Iceland." In *The Durable House: Architecture, Ancestors, and Origins*, edited by Robin A. Beck, Jr., 400-421. Carbondale: Institute for Archaeological Investigations, Southern Illinois University.
2015. "From Surplus Land to Surplus Production in the Viking Age Settlement of Iceland." In *Surplus: The Politics of Production and the Strategies of Everyday Life*, edited by Christopher T. Morehart and Kristin De Lucia, 153-174. Boulder: University of Colorado Press.

Bond, Julie M., and Fay L. Worley.
2006. "Companions in Death: The Roles of Animals in Anglo-Saxon and Viking Cremation Rituals in Britain." In *Social Archaeology of Funerary Remains*, edited by Gowland, Rebecca and Christopher Knüsel, 89-98. Oxford: Oxbow Books.

Boulhosa, Patricia.
2010. "Of Fish and Ships in Medieval Iceland." In *The Norwegian Domination and the Norse Wolrd c. 1100-c.1400*, edited by Steinar Imsen, 175-197. Trondheim: Tapir Academic Press.

Brace, Selena, Yoan Diekmann, and Thomas J. Booth.
2018. "Population Replacement in Early Neolithic Britain." *BioRxiv*. Preprint doi: https://doi.org/10.1101/267443.

Bradley, Richard.
2002. *The Past in Prehistoric Societies*. London: Routledge.
2006. "Can Archaeologists Study Prehistoric Cosmology?" In *Old Norse Religion in Long-Term Perspectives: Origins, Changes, and Interactions: An International Conference in Lund, Sweden, June 3-7, 2004*, edited by Anders Andrén, Kristina Jennbert, and Catharina Raudvere, 16-20. Vägar Till Midgård 8. Lund: Nordic Academic Press.

Bragg, Lois.
2004. *Oedipus Borealis: The Aberrant Body in Old Icelandic Myth and Saga*. Madison: Rosemont Publishing & Printing Corp.

Brøndsted, Johannes.
1936. *Danish Inhumation Graves of the Viking Age: a survey*. Acta Archaeologica VII. Copenhagen: Levin and Munksgaard.

Brewington, Seth.
2015. "Social-Ecological Resilience in the Viking-Age to Early-Medieval Faroe Islands." Doctoral Dissertation, New York: The Graduate Center, CUNY.

Brink, Stefan.
1990. "Cult Sites in Northern Sweden." *Scripta Instituti Donneriani Aboensis* 13: 458–89.
2001. "Mythologizing Landscape. Place and Space of Cult and Myth." In *Kontinuitäten Und Brüche in Der Religionsgeschichte*, edited by Michael Stausberg, 76–112. Festschrift Für Anders Hultgård 65. Berlin: Geburstag.
2007. "How Uniform Was the Old Norse Religion?" In *Learning and Understanding in the Old Norse World: Essays in Honour of Margret Clunies Ross*, edited by Judy Quinn, Kate Heslop, and Tarrin Wills, 105–135. Medieval Texts and Cultures of Northern Europe 18. Brepols.

Buckland, Paul C.
2000. "The North Atlantic Environment." In *Vikings: The North Atlantic Saga*, edited by William W. Fitzhugh and Elisabeth I. Ward, 146-153. Washington: Smithsonian Institution Press.

Bugge, Sophus.
1867. "Fortale" in *Norraen fornkvaedi*: *islandsk samling af folkelige oldtidsdigte om nordens guder og heroer*, X-LXXX. Christiania: P.T. Malling.

Byock, Jesse.
1993. "Skull and Bones in Egils Saga: A Viking, A Grave, and Paget's Disease." *Viator: Medieval and Renaissance Studies* 24: 23-50.

Byock, Jesse, Phillip Walker, Jon Erlandson, Per Holck, Davide Zori, Magnús Guðmundsson and Mark Tveskov.
2005. "A Viking-Age Valley in Iceland: The Mosfell Archaeological Project." *Medieval Archaeology* 49 (1): 195–218.

Cameron-Beaumont, Charlotte, Sarah E. Lowe, and John W.S. Bradshaw.
2002. "Evidence Suggesting Preadaptation to Domestication throughout the Small Felidae." *Biological Journal of the Linnean Society* 75: 361–66.

Campbell, Neil A., Jane B. Reece, Lisa A. Urry, Michael L. Cain, Steven A. Wasserman, Peter V. Minorsky, and Robert B. Jackson.
2008. "The practical applications of DNA technologyaffect our lives in many ways." In *Biology*. 8th edition, 416-425. San Francisco: Pearson Benjamin Cummings.

Carlie, Anne.
1999. "'Sacred White Stones': On Traditions of Building White Stones into Graves." *Lund Archaeological Review* 5: 41-58.
2004. *Forntida Byggnadskult: Tradition Och Regionalitet i Södra Skandinavien.* Skrifter 57. Sweden: Riksantikvarieämbetet, Arkeologiska Undersökingar.

Case, Linda P.
2003. *The Cat: Its Behavior, Nutrition & Health*. Ames: Iowa State Press.

Chadwick, N. K.
1946. "Norse Ghosts (A Study in the Draugr and the Haugbúi)." *Folklore* 57 (2): 50–65.

Christensen, Arne Emi, Anne Stine Ingstad, and Bjorn Myhre.
1993. *Oseberg Dronningens Grav: Vår Arkeologiske Nasjonalskatt I Nytt Lys.* Oslo: Schibsted.

Clarke, David L.
1973. "Archaeology: The Loss of Innocence." *Antiquity* 47: 6-18.

Clover, C.J., and John Lindow, eds.
1985. *Old Norse-Icelandic Literature: A Critical Guide*. Ithaca: Cornell University Press.

Clunies Ross, Margret.
1994. *Prolonged Echoes: Old Norse Myths in Medieval Northern Society*. Vol. 1: The Myths. The Viking Collection 10. Odense: Odense University Press.
1998. *Prolongued Echoes: Old Norse Myths in Medieval Northern Society*. Vol. 2: The Reception of Norse Myths in Medieval Iceland. The Viking Collection 10. Odense: Odense University Press.
2002. "Närvaron Och Frånvaron Av Ritual i Norröna Medelida Texter." In *Plats Och Praxis. Studier Av Nordisk Förkristen Ritual*, edited by Anders Andrén and Catharina Raudvere, 13-30. Vägar Till Midgård 2. Lund: Nordic Academic Press.
2006. "The Measures of Old Norse Religion in Long-Term Perspective." In *Old Norse Religion in Long-Term Perspectives: Origins, Changes and Interactions*. edited by Anders Andrén, Kristina Jennbert, and Catharina Raudvere, 412-415. Vägar Till Midgård 8. Lund: Nordic Academic Press.
2008. "The Creation of Old Norse Mythology." In *The Viking World*, edited by Stefan Brink and Neil Price, 231–34. New York: Routledge.

Clutton-Brock, Juliet.
1993. *Cats, Ancient and Modern*. Cambridge: Harvard University Press.
1999. *A Natural History of Domesticated Mammals*. 2nd ed. Cambridge: Cambridge University Press.

Colling, Teje.
1986. "Ingen Ordning, Sa Katten." In *Husdjuren och vi*. Fataburen: Nordiska museets och Skansens årsbok, 193-202. Stockholm: Nordiska museets förlag.

Cooney, Gabriel.
2016. “The Role of Stone in Island Societies in Neolithic Atlantic Europe: Creating Places and Cultural Landscapes.” *Arctic* 69 (Suppl. 1).
Crossland, Zoë.
2010. “Materiality and Embodiment.” In *The Oxford Handbook of Matertial Culture Studies*, edited by Dan Hicks and Mary C. Beaudry. Oxford: Oxford University Press.

Darnton, Robert.
1984. *The Great Cat Massacre: And Other Episodes in French Cultural History.* New York: Basic Books.

Datson, L., and G. Mitman.
2005. *Thinking with Animals: New Perspectives on Anthro- Pomorphism.* New York: Columbia University Press.

Dennis, Andrew, Peter Foote, and Richard Perkins.
1980. “Introduction.” In *Laws of Early Iceland: Grágás I*. Edited and translated by Andrew Dennis, Peter Foote, and Richard Perkins. Vol. 3, 1-20. The University of Manitoba Press Icelandic Studies. Winnipeg: University of Manitoba Press.

Dobat, Andres Siegfried.
2006. “Bridging Mythology and Belief: Viking Age Functional Culture as a Reflection of the Belief in Divine Intervention.” In *Old Norse Religion in Long-Term Perspectives: Origins, Changes, and Interactions: An International Conference in Lund, Sweden, June 3-7, 2004*, edited by Anders Andrén, Kristina Jennbert, and Catharina Raudvere, 184-188. Vägar Till Midgård 8. Lund: Nordic Academic Press.

Douglas, Mary.
1966. *Purity and Danger: An Analysis of Concept of Pollution and Taboo*. London: Routledge and Kegan Paul.
1973. *Natural Symbols: Explorations in Cosmology*. 2nd ed. London: Barrie and Jenkins.

Doutreleau, Vanessa.
2003. “Elfes et rapports ala nature en Islande.” *Ethnologie française*, nouvelle serie, T. 33 (4, Voix, Visions, Apparitions).

Driscoll, Carlos A., David W. Macdonald, and Stephen J. O'Brien.
2009. “From Wild Animals to Domestic Pets, an Evolutionary View of Domestication.” *Proceedings of the National Academy of Sciences of the United States of America* 106 (Suppl. 1).

Driscoll, Killian.
2016. “The Role of Quartz in Neolithic Lithic Traditions: A Case Study from the Thornhill Early Neolithic Palisaded Enclosure, Co. Londonderry, Northern Ireland.” In *Proceedings of the Royal Irish Academy.* Vol. 116C. Section C: Archaeology, Celtic Studies, History, Linguistics, Literature, 3-29. Dublin: Royal Irish Academy.

DuBois, Thomas.
1999. *Nordic Religions in the Viking Age.* The Middle Ages Series. Philadelphia: The University of Pennsylvania Press.
2006. "Rituals, Witnesses, and Sagas." In *Old Norse Religion in Long-Term Perspectives: Origins, Changes, and Interactions: An International Conference in Lund, Sweden, June 3-7, 2004*, edited by Anders Andrén, Kristina Jennbert, and Catharina Raudvere, 74-78. Vägar Till Midgård 8. Lund: Nordic Academic Press.

Dugmore, Andrew, Anthony J. Newton, Guðrún Larsen and Gordon T. Cook.
2000. "Tephrochronology, Environmental Change and the Norse Settlement of Iceland." *Enviromental Archaeology* 5: 21–34.

Dugmore, Andrew, Mike J. Church, Paul C. Buckland, K. J. Edwards, I. T. Lawson, T. H. McGovern, E. Panagiotakopulu, I. A. Simpson,. P. Skidmore, and G. Sveinbjarnardóttir.
2005. "The Norse Landnám on the North Atlantic Islands: An Environmental Impact Assessment." *Polar Record* 41 (1): 21-37.

Dugmore, Andrew, Thomas H. McGovern, Richard Streeter, Christian Koch Madsen, Konrad Smiarowski and Christian Keller.
2013. "'Clumsy Solutions' and 'Elegant Failures': Lessons on Climate Change Adaptation from the Settlement of the North Atlantic Islands." In *A Changing Environment for Human Security: Transformative Approaches to Research, Policy, and Action*, edited by Linda Sygna, Karen L. O'Brien, and Johanna Wolf, 435–50. London: Routledge.

Dumézil, Georges.
1973. *Gods of the Ancient Northmen*. Translated by Einar Haugen. Los Angeles: University of California Press.

During, Ebba.
1986. *The Fauna of Alvastra: An Osteological Analysis of Animal Bones from a Neolithic Pile Dwelling.* Vol. 12. Stockholm: Stockholms universitet.

Durkheim, Emile.
1965. *The Elementary Forms of the Religious Life*. Translated by Joseph Ward Swain. New York: The Free Press.

Einarsson, Bjarni. F.
1989. "Jaðarbyggð á Eyjafjarðardal. Víkingaaldarbærinn Granastaðir." *Súlur* 29: 22-77.
2008. "Blót Houses in Viking Age Farmstead Cult Practices - New Findings From South-Eastern Iceland." *Acta Archaeologica* 79: 145-184.

Eldjárn, Kristján.
1956. *Kuml Og Haugfé Úr Heiðnum Sið á Íslandi.* Doctoral Dissertation. Akureyri: Norðri.

Eldjárn, Kristján and Adolf Friðriksson.
2016. *Kuml Og Haugfé Úr Heiðnum Sið á Íslandi*, edited by Adolf Friðriksson. 3rd ed. Reykjavik: Mál og Menning.
Eliade, Mircea.
1954. *The Myth of the Eternal Return or, Cosmos and History*. Translated by Willard R. Trask. Princeton: Princeton University Press.
1964. *Shamanism. Archaic Techniques of Ecstasy*. Bollingen Series, LXXVI. Princeton: Princeton University Press.
1968. *The Sacred and the Profane: The Nature of Religion*. Translated by Willard R. Trask. A Harvest Book. New York: Harcourt, Brace, & World, Inc.
1969. *History and Meaning in Religion*. Chicago: University of Chicago Press.

Ellis, Hilda Roderick.
1968. *Road to Hel: A Study of the Conception of the Dead in Old Norse Literature*. New York: Greenwood Press.

Ellis Davidson, Hilda Roderick.
1989. *Myths and Symbols in Pagan Europe*. Syracuse: Syracuse University Press.
1990. *Gods and Myths of Northern Europe*. Reprint. London: Penguin Books.
1993. *The Lost Beliefs of Northern Europe*. London: Routledge.

Engels, Donald W.
1999. *Classical Cats: The Rise and Fall of the Sacred Cat*. London: Routledge.

Eriksen, Marianne Hem.
2013. "Doors to the Dead. The Power of Doorways and Thresholds in Viking Age Scandinavia." *Archaeological Dialogues* 20 (2): 187-214.

Erlandson, Jon M., Jesse Byock and Davide Zori.
2014. "Egil's Grave? Archaeology and Egils Saga at Kirkjuholl, Hrisbru." In *Viking Archaeology in Iceland: Mosfell Archaeological Project*, edited by Davide Zori and Jesse Byock, 45-53. Turnhout: Brepols.

Eysteinsson, Thröstur.
2017. *Forestry in a Treeless Land.* Reykjavik: Icelandic Forest Service.

Fahlander, Frederik.
2018. "Grave Encounters. Ontological Aspects of Post-Burial Interaction in the Late Iron Age of Central Eastern Sweden." *Primitive Tider* 20: 51-63.

Fahlander, Fredrik, and Terje Oestigaard, eds.
2008. *The Materiality of Death: Bodies, Burials, Beliefs*. BAR International Series 1768. Oxford: Archaeopress.

Faraday, L. Winifred.
1906. "Custom and Belief in the Icelandic Sagas." *Folklore* 17 (4): 387-426.

Faulkes, Anthony.
2005. “Introduction.” In *Edda: Prologue and Gylfaginning*. Edited by Anthony Faulkes. 2nd ed. Viking Society for Northern Research, xi-xxxii. London: University College London.

Flannery, Kent V.
1967. “Culture History versus Cultural Process: A Debate in American Archaeology.” *Scientific American* 217 (2): 119-127.

Flowers, Stephen.
1989. “Part 1.” In *The Galdrabók: An Icelandic Grimoire*. Edited and translated by Stephen Flowers, 1-58. York Beach, Maine: Samuel Weiser, Inc.

Fogelin, Lars.
2007. “The Archaeoloy of Religious Ritual.” *Annual Review of Anthropology* 36: 55-71.

Foote, Peter.
2000. “Introduction.” *Laws of Early Iceland: Grágás II*. Edited and translated by Andrew Dennis, Peter Foote, and Richard Perkins. Vol. 4, vii-xii. The University of Manitoba Press Icelandic Studies. Winnipeg: University of Manitoba Press.

Fowler, Chris.
2004. *The Archaeology of Personhood. An Anthropological Approach*. London: Routledge.

Frank, Roberta.
1984. “Viking Atrocity and Skaldic Verse: The Rite of the Blood-Eagle.” *English Historical Review* 99 (391): 332-343.

Frazer, James George.
1922. *The Golden Bough: A Study of Magic and Religion*. New York: MacMillan.

Karin M. Frei, Ashley N. Coutu, Konrad Smiarowski, Ramona Harrison, Christian K. Madsen, Jette Arneborg, Robert Frei, Gardar Guðmundsson, Søren M. Sindbæk, James Woollett, Steven Hartman, Megan Hicks and Thomas H. McGovern.
2015. “Was It for Walrus? Viking Age Settlement and Medieval Walrus Ivory Trade in Iceland and Greenland.” *World Archaeology* 47 (3): 439-466.

Friðriksson, Adolf.
1994. *Sagas and Popular Antiquarianism in Icelandic Archaeology*. Avebury: Ashgate Publishing Ltd.
2009. “Social and Symbolic Landscapes in Late Iron Age Iceland.” *Archaeologia Islandica* 7: 9–21.
2013. “La Place Du Mort: Les Tombes Vikings Dans Le Paysage Culturel Islandais.” Doctoral Dissertation. Paris: Université de la Sorbonne.

Friðriksson, Adolf, and Orri Vésteinsson.
2003. “Creating a Past: A Historiography of the Settlement of Iceland.” In *Contact, Continuity, and Collapse: The Norse Colonization of the North Atlantic*, edited by James Harold Barrett, 5, 139–61. Studies in the Early Middle Ages.
2011. “Landscapes of Burial: Contrasting the Pagan and Christian Paradigms of Burial in Viking Age and Medieval Iceland.” *Archaeologia Islandica* 9: 50-64.

Fuglesang, Signe Horn.
1982. “Early Viking Art.” *Acta Ad Archaeologiam et Artium Historiam Pertinentia* 2. Series altera in 8 / Institutum Romanum Norvegiae, 125-173.
1989. “Viking and Medieval Amulets in Scandinavia.” *Fornvännen* 84: 15–27.

Gage, John.
1999. “What Meaning Had Colour in Early Societies?” *Cambridge Archaeological Journal* 9 (1): 109-126.

Gage, John and Eric Shanes.
1994. “Colour and Culture: Practice and Meaning from Antiquity to Abstraction.” *The Art Book* 1 (3): 20-20.

Gansum, Terje.
2008. “Reproduction and Relocation of Death in Iron Age Scandinavia.” In *The Materiality of Death Bodies, Burials, Beliefs*, edited by Fredrik Fahlander and Terje Oestigaard. BAR International Series 1768, 141-146. Oxford: Archaeopress.

Gardeła, Leszek.
2008. “Into Viking Minds: Reinterpreting the Staffs of Sorcery and Unravelling "Seiđr."” *Viking and Medieval Scandinavia* 4: 45-84.

Geigl, Eva-Maria, Jeanne Mattei, and Thierry Grange.
2019. “Paleogenetic Analysis of Cat Bones from the Viking Sites of Hofstadir and Ingridarstadir: Preliminary Report.” CNRS UMR 7592. Paris: Université de Paris. Unpublished.

Gestsdóttir, Hildur.
2014. “Osteoarthritis in Iceland An Archaeological Study.” Doctoral Dissertation, Reykjavik: Háskóli Íslands.

Gestsdóttir, Hildur, Guðrún Alda Gísladóttir, Lísabet Guðmundsdóttir, Howell Magnús Roberts, Mjöll Snæsdóttir, and Orri Vésteinsson.
2017. “Dysnes: New Discoveries.” *Archaeologia Islandica* 12: 93-106.

Gilchrist, R.
2008. “Magic for the Dead? The Archaeology of Magic in Later Medieval Burials.” *Medieval Archaeology* 52: 119-159.

Glob, Peter V.
1969. *The Bog People: Iron-Age Man Preserved*. Ithaca: Cornell University Press.

Goldhahn, Joakim.
2007. *Dödens hand – en essä om brons- och hällsmed.* Gotarc Serie C. Arkeologiska Skrifter 65. Göteborg.

Gordon Childe, V.
1944. *Progress and Archaeology*. London: Watts.

Gowland, Rebecca, and Christopher Knüsel, eds.
2006. *The Social Archaeology of Funerary Remains*. Oxford: Oxbow Books.

Graves, Robert.
1948. *The White Goddess: A Historical Grammar of Poetic Myth.* New York: Creative Age.

Gräslund, Anne-Sofie.
1981. *Birka IV: The Burial Customs A Study of the Graves on Björkö.* Stockholm: Almqvist & Wiksell International.
2000. "Religion, Art, and Runes." In *Vikings: The North Atlantic Saga*, edited by William W. Fitzhugh and Elisabeth I. Ward, 55-69. Washington: Smithsonian Institution Press.
2004. "Dogs in Burials – A Question of Symbolism?" In *PECUS. Man and Animal in Antiquity. Proceedings from the Conference at the Swedish Institute in Rome, Sept.9-12, 2002.*, edited by Barbro Santillo Frizell. Projects and Seminars 1, 167-176. Rome: The Swedish Institute in Rome.

Grön, Camilla.
2008. "A Road to the Other Side." In *The Materiality of Death Bodies, Burials, Beliefs*, edited by Fredrik Fahlander and Terje Oestigaard. BAR International Series 1768, 151-154. Oxford: Archaeopress.

Grundtvig, Svend.
1867. *Om Nordens gamle literatur. En anmeldelse og en indsigelse*. Copenhagen: Gyldendalske boghandel(F. Hegél).

Gunnell, Terry.
2001. "Hof, Halls, Go!Ar and Dwarves: An Examination of the Ritual Space in the Pagan Icelandic Hall." *Cosmos* 17.
2005. "Eddic Poetry." *Old Norse-Icelandic Literature and Culture*, edited by Rory McTurk, 82-100. Malden: Blackwell Publishing.
2015. "Pantheon? What Pantheon? Concepts of a Family of Gods in Pre-Christian Scandinavian Religions." *Scripta Islandica* 66: 55-76.
2017. "Blótgyðjur, Goðar, Mimi, Incest, and Wagons: Oral Memories of the Religion(s) of the Vanir." In *Old Norse Mythology - Comparative Perspectives*, edited by Pernille Hermann, Stephen A. Mitchell, and Jens Peter Schjødt, 113–37. Publications of the Milman Parry Collection of Oral Literature 3. Cambridge: Harvard University Press.

Hårding, B.
1990. “Vad Benen Berättar.” In *Makt Och Människor i Kungens Sigtuna. Sigtunautgrävningen 1988-90*, edited by Sten Tesch. Sigtuna: Sigtuna museer.

Hartman, Steven, A.E.J. Ogilvie, Jón Haukur Ingimundarson, A.J. Dugmore, George Hambrecht, and T.H. McGovern.
2017. “Medieval Iceland, Greenland, and the New Human Condition: A Case Study in Integrated Environmental Humanities.” *Global and Planetary Change* 156: 123-139.

Hatting, Tove.
1989. “Vikingens kattpels”. *Dyr* 2: 24–28.
1990. “Cats from Viking Age Odense.” *Journal of Danish Archaeology.* 9(1): 179–193.

Hayeur Smith, Michele.
2004. *Draupnir’s Sweat and Mardöll’s Tears: An Archaeology of Jewellery, Gender and Identity in Viking Age Iceland.* Oxford: John and Erica Hedges.

Hazen, Robert M.
1984. “Mineralogy: A Historical Review.” *Journal of Geological Education* 32: 288-298.

Hedeager, Lotte.
2000. “From Warrior to Trade Economy.” In *Vikings: The North Atlantic Saga*, edited by William W. Fitzhugh and Elisabeth I. Ward, 84-85. Vikings: The North Atlantic Saga. Washington: Smithsonian Institution Press.
2002. “Scandinavian ‘Central Places’ in a Cosmological Setting.” In *Central Places in the Migration and Merovingian Periods: Papers from the 52nd Sachsensymposium, Lund, August 2001*, edited by Birgitta Hårdh and Lars Larsson. Vol. Volume 6 of Uppåkrastudier. Acta Archaeologica Lundensia: Series in 8o, Issue 39. Stockholm: Almqvist & Wiksell International.
2003. “Beyond Mortality: Scandinavian Animal Style Ad 400-1200.” In *Sea Change. Orkney and Northern Europe in the Late Iron Age Ad 300-800,* edited by J. Downes and A. Ritchie, 127-138. Angus: The Pinkfoot Press.
2011. *Iron Age Myth and Materiality: An Archaeology of Scandinavia AD 400-1000*. New York: Routledge.

Hedenstierna-Jonson, Charlotte.
2006. “Borre Style Metalwork in the Material Culture of the Birka Warriors an Apotropaic Symbol.” *Fornvännen* 101: 312-322.

Hegmon, Michelle.
2003. “Setting Theoretical Egos Aside: Issues and Theory in North American Archaeology.” *American Antiquity* 68 (2): 213-243.

Heide, Eldar.
2014. “Bárðar Saga as a Source for Reconstruction of Pre-Christian Religion?” In *Folklore in Old Norse – Old Norse in Folklore*, edited by Daniel Sävborg and Karen Bek-Pedersen. Nordistica Tartuensia 20, 170-180. Tartu: University of Tartu Press.

Helgason, Agnar, Sigrún Sigurðardóttir, Jayne Nicholson, Bryan Sykes, Emmeline W. Hill, Daniel G. Bradley, Vidar Bosnes, Jeffery R. Gulcher, Ryk Ward, and Kári Stefánsson.
2000. “Estimating Scandinavian and Gaelic Ancestry in the Male Settlers of Iceland.” *The American Journal of Human Genetics* 67 (3): 697–717.

Helgason, Agnar, Eileen Hickey, Sara Goodacre, Vidar Bosnes, Kári Stefánsson, Ryk Ward, and Bryan Sykes.
2001. “MtDNA and the Islands of the North Atlantic: Estimating the Proportions of Norse and Gaelic Ancestry.” *The American Journal of Human Genetics* 68 (3): 723–737.

Helgason, Jon Karl.
2005. “Continuity? The Icelandic Sagas in Post-Medieval Times.” In *Old Norse-Icelandic Literature and Culture*, edited by Rory McTurk, 64-81. Malden: Blackwell Publishing.

Henriksson, Göran.
2003. “The Pagan Great Midwinter Sacrifice and the ‘Royal’ Mounds at Old Uppsala.” In *Calendars, Symbols and Orientations: Legacies of Astronomy in Culture Proceedings of the 9th Annual Meeting of SEAC Stockholm 27-30 August 2001*. Uppsala: Uppsala Astronomical Observatory.

Hermanns-Auðardóttir, Margrét.
1991. “The Early Settlement of Iceland. Results Based on Excavations of a Merovingian and Viking Farm Site at Herjolfsdalur in the Westman Islands, Iceland.” *Norwegian Archaeological Review* 24 (1): 1-9.

Herschend, Frands.
1997. “Historical or Textual Archaeology: An Archaeology of Critical Rereading.” *Current Swedish Archaeology* 5: 65-78.

Heyden, Doris.
1975. “An Interpretation of the Cave underneath the Pyramid of the Sun in Teotihuacan, Mexico.” *American Antiquity* 40 (2): 131-147.

Hicks, David.
2010. *Ritual and Belief: Readings in the Anthropology of Religion*, edited by David Hicks. 3rd edition. Lanham: Altamira Press.

Hines, John.
2000. “Myth and Reality: The Contribution of Archaeology.” In *Old Norse Myths, Literature and Society: Proceedings of the 11th International Saga Conference 2-7 July 2000, University of Sydney*, edited by Geraldine Barnes and Margret Clunies Ross, 165–74. Sydney: Centre for Medieval Studies, University of Sydney.

Hjaltalín, Jón.
1871. “Traces of Animal Worship Among the Old Scandinavians.” *Frazer’s Magazine* 4: 13-25.

Hodder, Ian.
1982. *Symbols in Action*. Cambridge: Cambridge University Press.
1984. “Archaeology in 1984.” *Antiquity* 58(222): 25-32.
1986. *Reading the Past. Current Approaches to Interpretation in Archaeology*. Cambridge: Cambridge University Press.
1991. “The Current Theoretical Debate.” In *Processual and Postprocessual Archaeologies*, edited by B. Preucel. Carbondale: University of Illinois.

Hodder, Ian, and Lynn Meskell.
2011. “A ‘Curious and Sometimes a Trifle Macabre Artistry.’” *Current Anthropology* 52 (2): 235-263.

Hoftun, Oddgeir.
1997. ...“...Kvit Aur Øses over Treet: Det Hellige Hvite i Jernalderen.” *Viking: Norsk Arkeologisk Årbok* 60: 43-58.

Hollander, Lee M.
1927. “Were the Mythological Poems of the Edda Composed in the Pre-Christian Era?” *The Journal of English and Germanic Philology* 26 (1): 96–105.

Hu, Yaowu, Songmei Hu, Weilin Wang, Xiaohong Wu, Fiona B. Marshall, Xianglong Chen, Liangliang Hou, and Changsui Wang.
2014. “Earliest Evidence for Commensal Processes of Cat Domestication.” *Proceedings of the National Academy of Sciences of the United States of America* 111 (1): 116-120.

Hultgård, Anders.
2012. “The Religion of the Vikings.” In *The Viking World*, edited by Stefan Brink and Neil Price, 212-218. The Routledge Worlds. New York: Routledge.

Huntington, Richard, and Peter Metcalf.
1991. *Celebrations of Death: The Anthropology of Mortuary Ritual*. 2nd edition. Cambridge: Cambridge University Press.

Ilkjær, Jørgen and Jørn Lønstrup.
1982. “Interpretation of the Great Votive Deposits og Iron Age Weapons.” *Journal of Danish Archaeology* 1(1): 95-103.

Iregren, Elisabeth.
1972. “Vårby och Vårberg : 2 : studie av kremerat människo- och djurbensmaterial från järnålder.” Doctoral Dissertation, Stockholm, University of Stockholm.
1997. “Why Animal Bones in Human Graves: An Attempt to Interpret Animals Present in Iron Age Cremations in Sweden.” In *Cremation Studies in Archaeology*, edited by E. Smits, E. Iregren, and A.G. Drusini, 9-31. Padova: LOGOS Edizone.

Ingold, Tim, ed.
1988. *What Is an Animal?* One World Archaeology, I. London: Unwin Hyman.

Ingólfsdóttir, Monika Hrönn.
2011. “’Fann ég á fjalli fallega steina...’ um íslenska náttúrusteina, Skriðuklaustur og Keldudal.” Unpublished BA, Reykjavik: Háskóli Íslands.

Jaanusson, Hille.
1975. “Arkeologisk Undersök- Ning 1969-71, Hallunda, Botkyrka Sn, Södermanland. Del II: Fornlämning 13, Boplats.” 1975 B64. Stockholm: Riksantikvarieämbetet.

Jakobsson, Ármann.
2012. “The Earliest Legendary Saga Manuscripts.” In *The Legendary Sagas Origins and Development*, edited by Annette Lassen, Agneta Ney, and Ármann Jakobsson, 21-32. Reykjavik: University of Iceland Press.

Jennbert, Kristina.
2006. “The Heroized Dead: People, Animals, and Materiality in Scandinavian Death Rituals, AD 200-1000.” In *Old Norse Religion in Long-Term Perspectives: Origins, Changes, and Interactions: An International Conference in Lund, Sweden, June 3-7, 2004*, edited by Anders Andrén, Kristina Jennbert, and Catharina Raudvere, 135-140. Vägar Till Midgård 8. Lund: Nordic Academic Press.
2011. *Animals and Humans: Recurrent Symbiosis in Archaeology and Old Norse Religion*. Vägar Till Midgård 14. Lund: Nordic Academic Press.
2014. “Certain Humans, Certain Animals: Attitudes in the Long Term.” In *Exploring the Animal Turn: Human-Animal Relations in Science, Society and Culture*, edited by E. Andersson Cederholm, A. Björck, K. Jennbert and A.-S. Lönngren, 183-192. Lund: Pufendorf Institute for Advanced Scholars, Lund University.

Jesch, Judith.
2002. “Eagles, Ravens and Wolves: Beasts of Battle, Symbols of Victory and Death.” In *The Scandinavians from the Vendel Period to the Tenth Century*, edited by Judith Jesch, 251-280. Woodbridge: The Boydell Press.

Jochens, Jenny.
1995. *Women in Old Norse Society*. Ithaca: Cornell UP.

Jóhannesson, Guðni Thorlacius.
2013. *The History of Iceland*. The Greenwood Histories of the Modern Nations. Santa Barbara: Greenwood Press.

Johansson, Åke.
2008. "A Road for the Viking's Soul." In *The Materiality of Death Bodies, Burials, Beliefs*, edited by Fredrik Fahlander and Terje Oestigaard. BAR International Series 1768, 147-150. Oxford: Archaeopress.

Johansson, Karl. G.
1997. "A Scriptorium in Northern Iceland: Clárus Saga (AM 657 a-b 4to) Revisited." In *Sagas and the Norwegian Experience/Sagaene Og Noreg*, edited by Jan Ragnar Hagland, 323-332. Trondheim: Senter for Middelalderstudier.

Johansson, G.
2003. "En Gravhög Från Bronsåldern, Flintor Från Stenåldern Och Barnen Från Förskolan Barkassen. Halland, Kungsbacka Kommun, Onsala Socken, Lyngås 3:69, Raä 109." UV Väst Rapport 2003:21. Kungsbacka: Riksantikvarieämbetet.

Jones, Andrew.
1999. "Local Colour: Megalithic Architecture and Colour Symbolism in Neolithic Arran." *Oxford Journal of Archaeology* 18 (4): 339-350.

Jones, E.P., K. Skírnisson, T. H. McGovern, M.T.P. Gilbert, E. Willerslev and J.B. Searle.
2012. "Fellow Travellers: A Concordance of Colonization Patterns between Mice and Men in the North Atlantic Region." *BMC Evolutionary Biology* 12 (35): 1-8.

Jónsson, Jakob Orri.
2014. "A Study of Ritual in the Icelandic Viking Age Hall." Unpublished MA Thesis, Reykjavik: Háskóli Íslands.

Jørgensen, Lars.
2000. "Political Organization and Social Life." In *Vikings: The North Atlantic Saga*, edited by William W. Fitzhugh and Elisabeth I. Ward, 72-83. Washington: Smithsonian Institution Press.

Joyce, Rosemary A.
2005. "Archaeology of the Body." *Annual Reviews Anthropology* 34: 139-158.

Kaland, Sigrid H. H., and Irmelin Martens.
2000. "Farming and Daily Life." In *Vikings: The North Atlantic Saga*, edited by William W. Fitzhugh and Elisabeth I. Ward, 42-54. Washington: Smithsonian Institution Press.

Kaliff, Anders.
2007. *Fire, Water, Heaven and Earth. Ritual Practice and Cosmology in Ancient Scandinavia: An Indo-European Perspective*. Lund: Riksantikvarieämbetet.

Karlsson, Gunnar.
2000. *Iceland's 1100 Years: The History of a Marginal Society*. Iceland: Mál og Menning.

Klein, Cornelius, and Anthony Philpotts.
2013. *Earth Materials: Introduction to Mineralogy and Petrology*. 1st ed. Cambridge: Cambridge University Press.

Klevnäs, Alison.
2007. "Robbing the Dead at Gamla Uppsala, Sweden." *Archaeological Review from Cambridge* 22 (1): 24–42.

Klindt-Jensen, Ole.
1970. *The World of the Vikings*. Washington: R. B. Luce.
1975. *A History of Scandinavian Archaeology*. Translated by G. Russell Poole. London: Thames & Hudson.

Kristjánsson, Jónas.
1988. *Eddas and Sagas: Iceland's Medieval Literature*. Translated by Peter Foote. Reykjavik: Hið íslenska bókmenntafélag.
1993. *Icelandic Manuscripts: Sagas, History and Art*. Translated by Jeffrey Cosser. Reykjavik: Hið íslenska bókmenntafélag.

Kristófersson, Guðbjartur.
2020. "Jarðfræðiglósur: Kvars Holufyllingar." Jarðfræðiglósur. Index. Last Accessed 1/7/20. http://glosur.ggk.is/jfr/ordskyr/index.html.

Kristoffersen, Siv.
1995. "Transformation in Migration Period Animal Art." *Norwegian Archaeological Review* 28 (1): 1-17.

Kunz, George Frederick.
1913. *The Curious Lore of Precious Stones*. New York: Halycon House.

Larrington, Carolyne.
2008. "Introduction." In *Poetic Edda*. Edited and translated by Carolyne Larrington, ix-xxvi. Oxford: Oxford Paperbacks.

Larsen, Jan Henning.
1994. "'Hellige steiner' i Aust- og Vest-Agder." *Viking: tidsskrift for norrøn arkeologi* LVII: 107–18.

Lecouteux, Claude.
2012. *A Lapidary of Sacred Stones: Their Magical and Medicinal Powers Based on the Earliest Sources*. Reprint. Rochester: Inner Traditions.

Leifsson, Runar.
2011. “Evolving Traditions: Horse Slaughter as Part of Viking Burial Customs in Iceland.” In *The Ritual Killing and Burial of Animals: European Perspectives*, edited by Aleksander Pluskowski, 184-194. Oxford: Oxbow Books.

Lepiksaar, Johannes.
1986. “Fran Vilda Djur Till Husdjur.” *Husdjuren och vi*. Fataburen: Nordiska museets och Skansens årsbok, 9-26. Stockholm: Nordiska museets förlag.

Lethbridge, Emily.
2014. “Some Observations on Íslendingasögur Manuscripts and the Case of Njáls Saga.” *Arkiv För Nordisk Filologi* 129: 55–89.

Lévi-Strauss, Claude.
1969. *The Raw and the Cooked: Introduction to a Science of Mythology*. Translated by John Weightman and Doreen Weightman. Vol. 1. New York: Harper & Row.
1978. *Myth and Meaning*. Toronto: University of Toronto Press.

Lewis-Williams, J. D, and Th. A. Dowson.
1990. “Through the Veil. San Rock Paintings and the Rock Face.” *South African Archaeological Bulletin* 45: 5-16.

Lewis-Williams, J. D, and D. Pearce.
2004. *An Spirituality. Roots, Expressions and Social Consequences*. Cape Town: Double Storey Books.

Lindgren, Christina.
2004. *Människor Och Kvarts: Sociala Och Teknologiska Strategier under Mesolitikum i Östra Mellansverige*. Stockholm: Stockholms universitet.
2008. “Stones and Bones: The Myth of Ymer and Mortuary Practises with an Example from the Migration Period in Uppland, Central Sweden.” In *The Materiality of Death: Bodies, Burials, Beliefs*, edited by Fredrik Fahlander and Terje Oestigaard. BAR International Series 1768, 155-160. Oxford: Archaeopress.

Lindow, John.
1994. “Thor’s ‘Hammar.’” *The Journal of English and Germanic Philology* 93 (4): 485-503.
2001. *Norse Mythology: A Guide to Gods, Heroes, Rituals, and Beliefs*. Oxford: Oxford University Press.

Linderoth Wallace, Birgitta.
2000. “An Archaeologist’s Interpretation of the Vinland Sagas.” In *Vikings: The North Atlantic Saga*, edited by William W. Fitzhugh and Elizabeth I. Ward, 228-231. Washington: Smithsonian Institution Press.

Lindman, G.
2003. “Vid Helgasjönsstrand. Arkeologiska Un- Dersökningar Av Gravar Och Boplatslämningar. Småland, Växjö Kommun, Söraby Socken, Stockekvarn, Raä 11.” UV Väst Rapport 2003: 13. Kungsbacka: Riksantikvarieämbetet.

Loumand, Ulla.
2006. "The Horse and its Role in Icelandic Burial Practices, Mythology, and Society". In *Old Norse Religion in Long-term Perspectives: Origins, Changes, and Interactions: An International Conference in Lund, Sweden, June 3–7, 2004,* edited by Anders Andrén, Kristina Jennbert, and Catharina Raudvere, 130-134. Vägar Till Midgård 8. Lund: Nordic Academic Press.

Lucas, Gavin, and Thomas H. McGovern.
2007. “Bloody Slaughter: Ritual Decapitation and Display at the Viking Settlement of Hofstaðir, Iceland.” *European Journal of Archaeology* 10 (1): 7-30.

Lucas, Gavin, and Angelos Parigoris.
2013. “Icelandic Archaeology and the Ambiguities of Colonialism.” In *Scandinavian Colonialism and the Rise of Modernity: 89 Small Time Agents in a Global Arena*, by M. Naum and J.M. Nordin, 89–104. Contributions to Global Historical Archaeology 37. New York: Springer Science+Business Media.

Lummer, Felix.
2017. “Guðmundr á Glasisvöllum: A Study of Potential Foreign Influences.” Unpublished Master’s Thesis. Reykjavik: Háskóli Íslands.

Lundström, Agneta.
1983. “Vendel and the Vendel Period.” In *Vendel Period Studies: Transactions of the Boat-Grave Symposium in Stockholm, February 203, 1981*, edited by J.P. Lamm and H.-Å. Nordstrom. The Museum of National Antiquities, Stockholm, Studies 2, 105-108. Stockholm: Minab/Gotab.

MacCulloch, John Arnott.
1930. *Eddic Mythology*. Vol. 2. 13 vols. The Mythology of All Races. Boston: Archaeological Institute of America Marshall Jones Company.

MacLeod, Mindy, and Bernard Mees.
2006. *Runic Amulets and Magic Objects*. Woodbridge: The Boydell Press.

Madsen, Torsten, ed.
1988. *Multivariate Archaeology: Numerical Approaches in Scandinavian Archaeology*. Jutland Archaeological Society Publications, XXI. Aarhus: Aarhus University Press.

Maher, Ruth Ann.
2009. “Landscapes of Life and Death: Social Dimensions of a Perceived Landscape in Viking Age Iceland.” Doctoral Dissertation, New York: The City University of New York.

Malek, Jaromir.
1997. *The Cat in Ancient Egypt*. Philadelphia: University of Pennsylvania Press.

Malinowski, Bronislaw.
1948. *Magic, Science and Religion: And Other Essays*. New York: The Free Press.

Mandelstam Balzer, Marjorie.
1996. "Flights of the Sacred: Symbolism and Theory in Siberian Shamanism." *American Anthropologist* 98 (2): 305-318.

Marchand, Suzanne.
2007. "From Antiquarian to Archaeologist? Adolf Furtwängler and the Problem of Modern Classical Archaeology." In *Momigliano and Antiquarianism: Foundations of the Modern Cultural Sciences,* edited by Peter N. Miller, 248-285. Toronto: University of Toronto Press.

Mazza, Selene.
2017. *Cats in Context: Archaeological evidence of human-cat relationships in Scandinavia and Iceland 200-1100 CE.* Unpublished Master's thesis, Oslo: University of Oslo.

McCormick, Finbar.
1988. "The Domestic Cat in Early Christian and Medieval Ireland." In *Keimelia: Studies in Medieval Archaeology and History in Memory of Tom Delaney*, edited by Gearóid Mac Niocaill and Patrick F. Wallace, 218 - 228. Galway: Galway University Press.

McDonald, Sheryl.
2011. "Pagan Past and Christian Future in Norna-Gests Þáttr and Bárðar Saga Snæfellsáss." *Bulletin of International Medieval Research* 15–16, 164-178.

McGovern, Thomas H., Gerald Bigelow, Thomas Amorosi and Daniel Russell.
1988. "Northern Islands, Human Error, and Environmental Degradation: A View of Social and Ecological Change in the Medieval North Atlantic." *Human Ecology* 16: 225-270.

McGovern, Thomas H., Sophia Perdikaris, Árni Einarsson and Jane Sidell.
2006. "Coastal Connections, Local Fishing, and Sustainable Egg Harvesting: Patterns of Viking Age Inland Wild Resource Use in Mývatn District, Northern Iceland." *Environmental Archaeology: The Journal of Human Palaeoecology* 11: 187-205.

McGovern, Thomas H., Sophia Perdikaris, Ingrid Mainland, Philippa Ascough, Vicki Ewens, Arni Einarsson, Jane Sidell, George Hambrecht, and Ramona Harrison.
2009. "The archaeofauna" in *Hofstaðir: Excavations of a Viking Age Feasting Hall in North Eastern Iceland*, edited by Gavin Lucas, 168-252. Monograph 1. Reykjavik: Inst. of Archaeology.

McGovern, Thomas H., Ramona Harrison, and Konrad Smiarowski.
2014. “Sorting Sheep and Goats in Medieval Iceland and Greenland: Local Subsistence, Climate Change, or World System Impacts?” In *Human Ecodynamics in the North Atlantic: A Collaborative Model of Humans and Nature Through Space and Time*, edited by Ramona Harrison and Ruth Maher, 153-176. Lexington Books.

McHardy, Stuart.
2011. *A New History of the Picts*. Edinburgh: Luath Press Ltd.

Mitchell, Stephen A.
1988. “Anaphrodisiac Charms in the Nordic Middle Ages*:* Impotence, Infertility, and Magic” *Norveg The Norwegian Journal of Folklore* 38: 19-42.
2011. *Witchcraft and Magic in the Nordic Middle Ages*. Philadelphia: University of Pennsylvania Press.

Meletinskij, Eleazar.
1973. “Scandinavian Mythology as a System Part I.” *The Journal of Symbolic Anthropology* 1: 43-58.
1974. “Scandinavian Mythology as a System Part II.” *The Journal of Symbolic Anthropology* 2: 57-78.

Menotti-Raymond, Marilyn, Victor A. David, Solveig M. Pflueger, Kerstin Lindblad-Toh, Claire M. Wadec, Stephen J. O’Brien, and Warren E. Johnson.
2008. “Patterns of Molecular Genetic Variation among Cat Breeds.” *Genomics* 91: 1-11.

Merriam-Webster.com Dictionary, s.v. “literature,” accessed August 31, 2020, https://www.merriam-webster.com/dictionary/literature.

Meulengracht Sørensen, Preben.
1986. “Thor’s Fishing Expedition.” In *Words and Objects: Towards a Dialogue between Archaeology and History of Religion*, edited by Gro Steinsland, 257-78. Oslo: Norwegian University Press.
1993. *Saga and Society: An Introduction to Old Norse Literature*. Vol. 1. Studia Borealia, Nordic Studies Monograph Series. Odense: University Press of Southern Denmark.
1997. “Religions Old and New.” In *The Oxford Illustrated History of the Vikings*, edited by Peter Sawyer, 202-224. Oxford: Oxford University Press.

Middel, Kim P.
2016. “Arngrímur Jónsson and the Mapping of Iceland.” In *The Roots of Nationalism: National Identity Formation in Early Modern Europe, 1600-1815*, edited by Lotte Jensen, 109-134. Amsterdam: Amsterdam University Press.

Mitchell, Stephen.
1988. “Anaphrodisiac Charms in the Nordic Middle Ages: Impotence, Infertility, and Magic.” *Norveg* 38: 19-42.
2011. *Witchcraft and Magic in the Nordic Middle Ages*. Philadelphia: University of Pennsylvania Press.

Montague, Michael J., Gang Li, Barbara Gandolfi, Razib Khan, Bronwen L. Aken, Steven M. J. Searle, Patrick Minx, LaDeana W. Hillier, Daniel C. Koboldt, Brian W. Davis, Carlos A. Driscoll, Christina S. Barr, Kevin Blackistone, Javier Quilez, Belen Lorente-Galdos, Tomas Marques-Bonet, Can Alkan, Gregg W. C. Thomas, Matthew W. Hahn, Marilyn Menotti-Raymond, Stephen J. O’Brien, Richard K. Wilson, Leslie A. Lyons, William J. Murphy, and Wesley C. Warren.
2014. “Comparative Analysis of the Domestic Cat Genome Reveals Genetic Signatures Underlying Feline Biology and Domestication.” *PNAS* 111 (48): 17230-17235.

Montelius, Oscar.
1869. *Remains from the Iron Age of Scandinavia*. Stockholm: Ivar Hæggström.

Morey Sturtevant, Albert.
1952. “The Contemptuos Sense of the Old Norse Adjective Hvitr ‘White, Fair.’” *Scandinavian Studies* 24 (3): 119–21.

Morris, James.
2011. *Investigating Animal Burials Ritual, Mundane and Beyond*. BAR British Series 535. Oxford: Archaeopress.

Müller, Johannes.
2013. “Kossinna, Childe and aDNA: Comments on the Construction of Identities.” *Current Swedish Archaeology* 21: 35–37.

Näsström, Britt-Mari.
1995. *Freyja - the Great Goddess of the North*. Vol. 5. Lund Studies in History of Religions. Lund: University of Lund.

Needham, Rodney.
1985. *Exemplars*. Berkeley: University of California Press.

Nerman, Birgir.
1931. *The Poetic Edda in the Light of Archaeology*. Vol. 4. Viking Society for Northern Research. Coventry: Curtis and Beamish.

Nesse, William D.
2000. *Introduction to Mineralogy*. Oxford: Oxford University Press.

Nielsen, Ann-Lili.
1996. “Hedniska Kult - Och Offerhandlingar i Borg –Ett uttryck för gårdens centrala betydelse under yngre järnålde.” In *Religion från stenålder till medeltid –Artiklar baserade på Religionsarkeologiska nätverksgruppens konferens på Lövstadbruk de 1-3 december 1995*, edited by K. Engdahl and A. Kaliff, 89-104. Arkeologiska Undersökingar 19. Linköping: Riksantikvarieämbetet.
2006. “Rituals and Power: About a Small Building and Animal Bones from the Late Iron Age.” In *Old Norse Religion in Long-Term Perspectives: Origins, Changes, and Interactions: An International Conference in Lund, Sweden, June 3-7, 2004*, edited by Anders Andrén, Kristina Jennbert, and Catharina Raudvere, 243-247. Vägar Till Midgård 8. Lund: Nordic Academic Press.

Nilsson, Lena.
1998. “Benmaterialet Från Uppåkra 98:2 - Preliminära Resultat.” S. 87-96. Centrum I Analys Och Rapport. Uppåkra.
2003. “Blóta, Sóa, Senda. Analys av djurben.” In *Järrestad. Huvudgård i centralbygd*, edited B. Söderberg. Arkeologiska undersökningar skrifter No 51, 287–308. Lund: Riksantikvarieämbetet.

Norden, Arthur.
1928. “Räknebesvärjelsen Som Galgbacksmagi: Ett Bidrag till Frågan Om Galgbacksbegravningar i Forntida Gravminnesmärken.” *Fornvännen* 23: 346-365.

O’Connor, Ralph.
2005. “History or Fiction? Truth-Claims and Defensive Narrators in Icelandic Romance-Sagas.” *Mediaeval Scandinavia* 15: 101-169.

O’Day, Sharyn Jones, ed.
2004. *Behaviour behind Bones: The Zooarchaeology of Ritual, Religion, Status and Identity; Proceedings of the 9th Conference of the International Council of Archaeozoology, Durham, August 2002*. Oxford: Oxbow Books.

Oestigaard, Terje.
2004. “The World as Artefact: Material Culture Studies and Archaeology.” In *Material Culture and Other Things Post-disciplinary Studies in the 21st Century*, edited by Fredrik Fahlander and Terje Oestigaard. Gotarc, Series C, N. 61, 21-55. Gothenburg: University of Gothenburg.

Ogilvie, Astrid E. J.
1982. “Climate and Society in Iceland.” Doctoral Dissertation, Norwich, UK: University of East Anglia.
1984. “The Past Climate and Sea-Ice Record from Iceland, Part I: Data to A.D. 1780.” *Climate Changes* 6: 131–52.2018. *The Foundations of Map-Making and Geography in Iceland.* 48th International Arctic Workshop, Program and Abstracts. Institute of Arctic and Alpine Research (INSTAAR), University of Colorado at Boulder.

In Press. “Famines, Mortality, Livestock, Deaths and Scholarship: Environmental Stress in Iceland ca. 1500-1700.” In *The Dance of Death in Late Medieval and Renaissance Europe: Environmental Stress, Mortality and Social Response,* edited by Andrea Kiss and Kathleen Pribyl, 9-24. London: Routledge.

Ogilvie, Astrid, and T. Jonsson.
2001. “‘Little Ice Age’ Research: A Perspective From Iceland.” *Climate Change* 48: 9-52.

Ólafsson, Ólafur “Olavius.”
1964. *Ferðabok, Landshagir i Norðvestur-, Norður-Og Norðaustursyslum Islands 1775-1777*. Vol. 1. Reykjavik: Bókfellsútgáfan, H.f.

Ólason, Páll Eggert.
1951. *Íslenzkar æviskrár*. Vol. 4: Frá Landnámstímum til Ársloka 1940. Reykjavik: Íslenzka Bókmenntagfélags.

Ólason, Vésteinn.
1994. “The Marvellous North and Authorial Presence in the Icelandic Fornaldarsaga.” In *Contexts of Pre-Novel Narrative: The European Tradition*, edited by Roy Eriksen, 101-134. Berlin: Mouton de Gruyter.
2005. “Family Sagas.” In *Old Norse-Icelandic Literature and Culture*, edited by Rory McTurk, 101-118. Malden: Blackwell Publishing.

Oldfield Howey, M.
1989. *Cats in Magic, Mythology and Religion*. New York: Crescent Books.

Ottoni, Claudio, Thierry Grange, Eva-Maria Geigl, et al.
2017. “The Palaeogenetics of Cat Dispersal in the Ancient World.” *Nature Ecology & Evolution* 1 (0139): 1-7.

Overton, Nick J., and Yannis Hamilakis.
2013. “A Manifesto for a Social Zooarchaeology. Swans and Other Beings in the Mesolithic.” *Archaeological Dialogues* 20 (2): 111-136.

Pálsdóttir, Albína Hulda.
2010. “Dýrabeinin frá Alþingisreit: Greining á dýrabeinum frá svæðum A, B og C.” Skýrslur Íslenskra fornleifarannsókna ehf Nr. 2010-1. Reykjavik: Íslenskar fornleifarannsóknir ehf.

Pálsson, Gísli.
2019. “Storied Lines Using Historical Documentation to Characterize Archaeological Connectivity.” Doctoral Dissertation, Umeå: Umeå University.

Parker Pearson, Mike.
1999. *The Archaeology of Death and Burial*. Thrupp: Sutton Publishing Ltd.

Pastoureau, Michel.
2008. *Black: The History of a Color*. Princeton: Princeton University Press.

Paulsson, T.
1993. "Huset Och Lyckan: en studie i byggnadsoffer från nordisk järnålder och medeltid." BA dissertation, Lund: Lunds Universitet.

Pearce, J.
1997. "Death and Time: The Structure of Late Iron Age Mortuary Ritual." In *Reconstructing Iron Age Societies*, edited by A. Gwilt and C. Haselgrove, 174-180. Oxford: Oxbow Books.

Peel, J. D. Y.
1968. "Syncretism and Religious Change." *Comparative Studies in Society and History* 10 (2): 121-141.

Perabo, Lyonel D.
2016. "Here Be Heathens: The Supernatural Image of Northern Fenno-Scandinavia in Pre-Modern Literature." Unpublished Master´s Thesis. Reykjavik: Háskóli Íslands.

Petersen, Henry.
1876. *Om Nordboernes Gudedyrkelse Og Gudetro i Hedenold. En Antikvarisk Undersøgelse*. Copenhagen: C.A. Reitzels Forlag.

Petersen, T.H.
1905. "Nogle Bemerkninger om de Saakaldte 'Hellige Hvide Stene.'" *Det Kgl. Norske Videnskabers Selskabs* Skrifter 8.

Pétursdóttir, Þora.
2009. "Icelandic Viking Age Graves: Lack in Material- Lack of Interpretation?" *Archaeologia Islandica* 7Æ 22-40.

Pétursson, Pétur.
2013. "Manifest and Latent Biblical Themes in Voluspá." In *The Nordic Apocalypse: Approaches to Völuspa and Nordic Days of Judgement.*, edited by Terry Gunnell and Annette Lassen. Acta Scandinavica 2, Aberdeen studies in the Scandinavian world, 185-201. Turnhout: Brepols.

Prehal, Brenda.
2011. "Freyja's Cats: Perspectives on Recent Viking Age Finds in Þegjandadalur North Iceland." Unpublished Master's Thesis, New York: Hunter College, CUNY.

Price, Neil.
2000a. "The Scandinavian Landscape: People and Environment." In *Vikings: The North Atlantic Saga*, edited by William W. Fitzhugh and Elisabeth I. Ward, 31-41. Washington: Smithsonian Institution Press.

2000b. “Shamanism and the Vikings?” In *Vikings: The North Atlantic Saga*, edited by William W. Fitzhugh and Elisabeth I. Ward, 70-71. Washington: Smithsonian Institution Press.
2008. “Dying and the Dead: Viking Age Mortuary Behaviour.” In *The Viking World*, edited by Stefan Brink and Neil Price, 257-273. New York: Routledge.
2019. *The Viking Way: Magic and Mind in Late Iron Age Scandinavia*. Oxford: Oxbow Books.
2020. *The Children of Ash and Elm: A History of the Vikings*. New York: Basic Books.

Price, Neil, Charlotte Hedenstierna-Jonson, Torun Zachrisson, Anna Kjellström, Jan Storå, Maja Krzewińska, Torsten Günther, Verónica Sobrado, Mattias Jakobsson and Anders Götherström.
2019. “Viking Warrior Women? Reassessing Birka Chamber Grave Bj.581.” *Antiquity* 93(367): 181-198.

Rapp, George.
2009. *Archaeomineralogy*. 2nd ed. Berlin: Springer-Verlag.

Rahtz, P.
1983. “New Approaches to Medieval Archaeology, Part 1.” In *25 Years of Medieval Archaeology*, edited by D. A. Hinton, 12-23. Sheffield: University of Sheffield.

Ratke, S. and Robert Simek.
2006. “‘Guldgubber’. Relics of Pre-Christian Law Rituals?” In *Old Norse Religion in Long-Term Perspectives. Origins, Changes, and Interactions*. Vägar Till Midgård 8. Lund: Nordic Academic Press.

Redfield, Robert.
1952. “The Primitive World View.” *Proceedings of the American Philosophical Society* 96(1): 30-36.

Renfrew, Colin.
1994. “The Archaeology of Religion.” In *The Ancient Mind: Elements of Cognitive Archaeology, (New Directions in Archaeology)*, edited by Colin Renfrew and Ezra B. W. Zubrow, 47-54. Cambridge: Cambridge University Press.

Renfrew, Colin, and Paul Bahn.
1991. *Archaeology: Theories, Methods and Practice*. London: Thames & Hudson.

Renfrew, Colin, and Ezra B. W. Zubrow, eds.
1994. *The Ancient Mind: Elements of Cognitive Archaeology*. New Directions in Archaeology. Buffalo: State University of New York.

Reynolds, Ffion.
2009. “Regenerating Substances: Quartz as an Animistic Agent.” *Time and Mind: The Journal of Archaeology, Consciousness and Culture* 2 (2)153-166.

Ritchie, Anna.
2011. “Cemeteries of Platform Cairns and Long Cists around Sinclair’s Bay, Caithness.” *Proceedings of the Society of Antiquaries of Scotland* 141: 125-143.

Robb, John E.
1998. “The archaeology of symbols.” *Annual Review of Anthropology* 27: 329-346.

Roberts, Howell M, and Elín Ósk Hreiðarsdóttir.
2013. “The Litlu-Núpar Burials.” *Archaeologia Islandica* 10: 104-130.

Roesdahl, Else.
1998. *The Vikings*. Translated by Susan M. Margeson and Kristen Williams. Revised. London: Penguin Books.

Rohland, Nadin, and Michael Hofreiter.
2007. “Comparison and Optimization of Ancient DNA Extraction.” *BioTechniques* 42: 343–52.

Ropars, Guy, Gabriel Gorre, Albert Le Floch, Jay Enoch and Vasudevan Lakshminarayanan.
2011. “A Depolarizer as a Possible Precise Sunstone for Viking Navigation by Polarized Skylight.” *Proceedings of the Royal Society A: Mathematical,Physical and Engineering Sciences* 468 (2139): 671-684.

Roslund, Curt, and Claes Beckman.
1994. “Disputing Viking Navigation by Polarized Skylight.” *Applied Optics* 33 (21): 4754–55.

Rowlands, M.
1993. “The Role of Memory in the Transmission of Culture.” *World Archaeology* 25(2): 141-151.

Russell, Nerissa.
2012. *Social Zooarchaeology: Humans and Animals in Prehistory*. Cambridge: Cambridge University Press.

Schiffer, Michael.
1999. *The Material Life of Human Beings: Artifacts, Behavior, and Communication.* London: Routledge.

Schledermann, Peter.
2000. “1000 A.D.: East Meets West.” In *Vikings: The North Atlantic Saga*, edited by William W. Fitzhugh and Elisabeth I. Ward, 189-192. Washington: Smithsonian Institution Press.

Schmidt Poulsen, Grete.
1986. “The Complementarity of Magic in Nordic Mythology and in Archaeological Sources.” In *Words and Objects: Towards a Dialogue Between Archaeology and History of Religion,* edited by Gro Steinsland. B, LXXI, 168-179. Oslo: Norwegian University Press.

Schnittger, Bror.
1922. “Hallristningarnas Kronologi Och Betydelse. Ett Genmale till Docent Ekholm.” *Fornvännen* 17.

Shanks, Michael, and Christopher Tilley.
1988. *Social Theory and Archaeology*. Albuquerque: University of New Mexico Press.

Shetelig, Haakon, and Hjalmar Falk.
1937. *Scandinavian Archaeology*. Translated by E.V. Gordon. Oxford: Clarendon Press.

Sigurðsson, Gísli.
2000. “Eddas and Sagas in Medieval Iceland.” In *Vikings: The North Atlantic Saga*, edited by William W. Fitzhugh and Elisabeth I. Ward, 186-188. Washington: Smithsonian Institution Press.

Sigurðsson, Jón Viðar.
1999. *Chieftains and Power in the Icelandic Commonwealth*. Translated by Jean Lundskær-Nielsen. Odense: Odense University Press.

Simek, Rudolf.
1996. *Dictionary of Northern Mythology*. Translated by Angela Hall. Reprint. Cambridge: D.S. Brewer.
2006. “The Use and Abuse of Old Norse Religion: Its Beginnings in High Medieval Iceland.” In *Old Norse Religion in Long-Term Perspectives: Origins, Changes, and Interactions: An International Conference in Lund, Sweden, June 3-7, 2004*, edited by Anders Andrén, Kristina Jennbert, and Catharina Raudvere, 377-380. Vägar Till Midgård 8. Lund: Nordic Academic Press.

Simpson, Jaqueline.
2004. “Introduction.” *Icelandic Folktales & Legends*. Edited and translated by Jaqueline Simpson. 2nd edition, 10-22. Great Britain: Tempus Publishing.

Sjøvold, Thorleif.
1966. *The Oseberg Find and the Other Viking Ship Finds*. Translated by Mary Fjeld. Oslo: Universitetets Oldsaksamling.

Skjølsvold, Arne.
1963. “«Hellige Hvite Steiner» Fra Rogaland.” *Fra Haug Ok Heidni* 1.

Smith, Kevin P.
1995. “Landnám: The Settlement of Iceland in Archaeological and Historical Perspective.” *World Archaeology*, Colonization of Islands, 26 (3): 319–47.

Sonneson, G.
1992. *Bildbetydelser: Inledning till Bildesmiotiken Som Vetenskap*. Lund: Studentlitterature.

Staecker, Jörn.
2006. “Heroes, Kings, and Gods: Discovering Sagas on Gotlandic Picture-Stones.” In *Old Norse Religion in Long-Term Perspectives: Origins, Changes, and Interactions: An International Conference in Lund, Sweden, June 3-7, 2004*, edited by Anders Andrén, Kristina Jennbert, and Catharina Raudvere, 363-368.. Vägar Till Midgård 8. Lund: Nordic Academic Press.

Steinsland, Gro.
2013. “Vǫluspá and the Sibylline Oracles with a Focus on the ‘Myth of the Future.’” In *The Nordic Apocalypse: Approaches to Völuspa and Nordic Days of Judgement.*, edited by Terry Gunnell and Annette Lassen. Acta Scandinavica 2, Aberdeen studies in the Scandinavian world, 147-160. Turnhout: Brepols.

Stevens Coon, Carleton.
1939. *The Races of Europe*. New York: The MacMillan Company.

Steward, Julian H.
1942. “The Direct Historical Approach to Archaeology.” *American Antiquity* 7 (4): 337-343.

Strömbäck, Dag.
1971. “Uppsala in Old Norse Literature.” In *Proceedings of the Sixth Viking Congress, Uppsala 3-10 August, Bonäs, Dalarna 10-12 August 1969*, edited by Peter Foote and Dag Strömbäck, 21-32. Uppsala: Almqvist & Wiksells.

Sullivan, Lawrence E.
1988. *Icanchu’s Drum: An Orientation to Meaning in South American Religions*. New York: MacMillan University Press.

Svederup, Georg.
1933. “Fra Gravskikke Til Dødstro i Nordisk Bronsealder.” *Skrifter Utgitt Av Det Norske Videnskaps-Akademi i Oslo* II (4).

Szabo, Vicki.
2012. “Subsistence Whaling and the Norse Diaspora: Norsemen, Basques, and Whale Use in the Western North Atlantic, CA. AD 900–1640.” In *Studies in the Medieval Atlantic*, edited by Benjamin Hudson, 65-99. The New Middle Ages. New York: Palgrave Macmillan.

Taçon, Paul.
1991. “The Power of Stone: Symbolic Aspects of Stone Use and Tool Development in Western Arnhem Land, Australia.” *Antiquity* 65(247): 192-207.

Taçon, Paul S.C. and Sven Ouzman.
2004. “Worlds within stone: the inner and outer rock-art landscapes of northern Australia and southern Africa.” In *The figured landscapes of rock-art,* edited by Christopher C. Chippindale and George H. Nash, 39-68. Cambridge: Cambridge University Press.

Taylor, Marvin.
1993. “Review of Þórhallur Vilmundarson and Bjarni Vilhjálmsson, Editors. Harðar Saga. Íslenzk Fornrit, Vol. 13. Reykjavík: Hið Íslenzka Fornritafélag, 1991. 856 pages.” *Alvíssmál* 2: 122–25.

Thompson, Tok.
2005. “Clocha Geala/Clocha Uaisle: White Quartz in Irish Tradition.” *Béaloideas* 73: 111-133.

Thorláksson, Helgi.
2000. “The Icelandic Commonwealth Period: Building a New Society.” In *Vikings: The North Atlantic Saga*, edited by William W. Fitzhugh and Elisabeth I. Ward, 175-185. Washington: Smithsonian Institution Press.

Thórarinsson, Sigurður.
1944. “Tefrokronologiska Studier På Island: Þjórsárdalur och Dess Förödelse.” *Geografiska Annaler* 26: 1-217.
1956. *The Thousand Years Struggle against Fire and Ice*. Reykjavik: Bókaútgáfa Menningarsjóðs.

Tilley, Christopher.
1991. *Material Culture and Text : The Art of Ambiguity*. London: Routledge.
1999. *Metaphor and Material Culture*. Oxford: Blackwell Publishing.

Toplak, Matthias S.
2019. “The Warrior and the Cat A Re-Evaluation of the Roles of Domestic Cats in Viking Age Scandinavia.” *Current Swedish Archaeology* 27(27): 213-245.

Torfason, Helgi.
2003. “Jarðhitakort Af Íslandi Og Gagnasafn Um Jarðhita.” OS-2003/062 and NÍ-03016. Reykjavik: Orkustofnun.

Tómasson, Sverrir.
2002. “The History of Old Nordic Manuscripts I: Old Icelandic.” In *The Nordic Languages: An International Handbook of the History of the North Germanic Languages*, edited by Oskar Bandle and et al, 793-801. Vol. 1. Berlin/New York: Walter de Gruyter.

Trigger, Bruce.
1984. “Archaeology at the Crossroads: What's New?” *Annual Review of Anthropology* 13:275-300.
1989. *A History of Archaeological Thought*. Cambridge: Cambridge University Press.

Tulinius, Torfi H.
2005. “Sagas of Icelandic Prehistory (Fornaldarsögur).” In *Old Norse-Icelandic Literature and Culture*, edited by Rory McTurk, 447-461. Malden: Blackwell Publishing.

Turner, Victor.
1967. *The Forest of Symbols: Aspects of Ndembu Ritual*. Ithaca: Cornell University Press.

Turville-Petre, Gabriel.
1953. *Origins of Icelandic Literature*. Glasgow: Oxford University Press.
1964. *Myth and Religion of the North: The Religion of Ancient Scandinavia*. Westport: Greenwood Press.

Tylor, Edward B.
1871. *Primitive Culture: Researches into the Development of Mythology, Philosophy, Religion, Language, Art, and Custom*. Vol. 1 & 2. 2 vols. London: John Murray.

Van Neer, Wim et al.
2014. "More Evidence for Cat Taming at the Predynastic Elite Cemetery of Hierakonpolis (Upper Egypt)." *Journal of Archaeological Science* 45: 103–111.

Victor Turner.
1975. *Revelation and Divination in Ndembu Ritual*. Ithaca: Cornell University Press.

Vidal, Teva.
2013. "Houses and Domestic Life in the Viking Age and Medieval Period: Material Perspectives From Sagas and Archaeology." Unpublished Doctoral Dissertation, Nottingham: University of Nottingham.

Vigne, J.D., J. Guilaine, K. Debue, L. Haye, and P. Gérard.
2004. "Early Taming of the Cat in Cyprus." *Science* 304 (5668): 259-259.

Vigne, J.D.
2015. "Early Domestication and Farming: What Should We Know or Do for a Better Understanding?" *Anthropozoologica* 50 (2): 123-150.

Vésteinsson, Orri.
2000. "The Archaeology of Landnam: Early Settlement in Iceland." In *Vikings: The North Atlantic Saga*, edited by William W. Fitzhugh and Elisabeth I. Ward, 164-174. Washington: Smithsonian Institution Press.
2005. "The Formative Phase of the Icelandic Church c. 990-1240 AD." In *Church Centres. Church Centres in Iceland from the 11th to the 13th Century and Their Parallels in Other Countries*, edited by Helgi Þorláksson, 71-81. Akranes: Snorrastofa.

Walaker Nordeide, Sæbjørg.
2006. "Thor's Hammer in Norway: A Symbol of Reaction against the Christian Cross?" In *Old Norse Religion in Long Term Perspectives. Origins, Changes and Interactions*, edited by Anders Andrén, Kristina Jennbert, and Catharina Raudvere, 218-223. Vägar till Midgård 8. Lund: Nordic Academic Press.

Walker, G.P.L.
1960. "Zeolite Zones and Dike Distribution in Relation to the Structure of the Basalts of Eastern Iceland." *The Journal of Geolology.* 68(5): 515-528.

Walker, William H.
1998. “Where Are the Witches of Prehistory?” *Journal of Archaeological Method and Theory* 5: 245–308.

Ward, Elizabeth I.
2016. “Completing Þórðar Saga Hreðu: A Regional Saga in Disguise.” *Gripla* 27: 93–125.

Whaley, Diana.
2005. “Skaldic Poetry.” In *Old Norse-Icelandic Literature and Culture*, edited by Rory McTurk, 479-502. Malden: Blackwell Publishing.

Whitley, David S., Ronald I. Dorn, Joseph M. Simon, Robert Rechtman, and Tamara K. Whitley.
1999. “Sally’s Rockshelter and the Archaeology of the Vision Quest.” *Cambridge Archaeological Journal* 9 (2): 221-247.

Wigh, Bengt.
2011. *Excavations in the Black Earth 1990-95: Animal Husbandry in the Viking Age Town of Birka and Its Hinterland.* Birka Studies 7. Stockholm: Produced by the Birka Project for Riksantikvarieämbetet.

Williams, Howard.
2001. “An Ideology of Transformation: Cremation Rites and Animal Sacrifice in Early Anglo-Saxon England.” In *The Archaeology of Shamanism*, edited by Neil Price, 193 - 212. London: Routledge.
2004. “Death Warmed up: The Agency of Bodies and Bones in Early Anglo-Saxon Cremation Rites.” *Journal of Material Culture* 9(3): 263-291.
2008. “Towards an Archaeology of Cremation.” In *The Analysis of Burned Human Remains*, edited by Christopher W. Schmidt and Steve A. Symes, 239-269. London: Academic Press.
2009. “On Display: Envisioning the Early Anglo-Saxon Dead.” In *Mortuary Practices & Social Identities in the Middle Ages: Essays in Burial Archaeology in Honour of Heinrich Härke*, edited by D. Sayer. & H. Williams, 170-206. Exeter: University of Exeter Press.

Wilson, David M., and Ole Klindt-Jensen.
1966. *Viking Art*. Ithaca: Cornell University Press.

Wrigglesworth, Melanie.
2011. “Finding Your Place: Rock Art and Local Identity in West Norway. A Study of Bronze Age Rock Art in Hardanger and Sunnhordland.” Unpublished Doctoral Dissertation, Bergen: Universitetet i Bergen.

Wolf, Kirsten.
2009. “The Color Grey in Old Norse-Icelandic Literature.” *The Journal of English and Germanic Philology* 108 (2): 222-238.

Yang, Dongya Y., B Eng, J S Waye, J C Dudar, S R Saunders.
1998. “Technical Note: Improved DNA Extraction From Ancient Bones Using Silica-Based Spin Columns.” *American Journal of Physical Anthropology* 105: 539–543.

Zachrisson, Torun.
2004. “The Holiness of Helgö.” In *Excavations at Helgö XVI: Exotic and Sacral Finds from Helgö.* Vol. 16., 143-75. Stockholm: Kungl. Vitterhets Historie Och Antikvitets Akademien.
2017. “Volund Was Here: A Myth ArchaeologicallyAnchoredinVikingAgeScania.” In *Old Norse Mythology—Comparative Perspectives*, edited by Pernille Hermann, Stephen A. Mitchell, Jens Peter Schjødt, and Amber J. Rose, 139-162. Cambridge: The Milman Parry Collection of Oral Literature: Harvard University Press.

Zoëga, Guðný.
2014. “Early Church Organization in Skagafjörður, North Iceland. The Results of the Skagafjörður Church Project.” *Collegium Medievale* 27: 23-62.

Zoëga, Guðný, and Douglas Bolender.
2017. “Keflavík on Hegranes: Cemetery Excavation Interim Report 2017.” BSk 2017-191/SCASS-20. Byggðasafn Skagfirðinga/Fiske Center for Archaeological Research, UMass Boston.
2017b. “An Archeology Of Moments: Christian Conversion and Practice in a Medieval Household Cemetery.” *Journal of Social Archaeology* 17(1): 69-91.