

# Brewing and Drinking Ale in Late Iron Age Scandinavia

*An Interdisciplinary Investigation on Drinking Customs with  
a Female Perspective*

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## **Summary**

This thesis aims to investigate with an interdisciplinary approach the role that the beverage “ale” had in late Iron/Viking Age society. The survey, however, focuses on the relationship that women in the Viking Age had with ale, thus the study has been carried out by analysing which roles women had when brewing, serving and drinking ale. The geographical region of this research has been limited to modern day Norway, while the interdisciplinarity is given by the employment of methods and sources drawn from different disciplines. The first part of the analysis concerns the study of the possible procedures that the Vikings might have employed for brewing ale, and deals with the reinterpretation of archaeological sources and previous contributions in light of an attempt of experimental archaeology. In the second part, literary material and runic inscription have been analysed for investigating the potential cultural and symbolic meanings which ale had in association to women’s activities as brewers, as provider of drinks and as drinkers. The combination of different kinds of sources has pointed out that ale had a central role in the lives of Viking Age women.



## Foreword

I am finally at the end of a long path of personal growth that I covered in the last two years and a half. I arrived in Oslo in August 2019, full of energy and excitement for a new chapter in my life. It was not easy to leave my older life, my family, my friends, my projects, but I felt left apart by my own country, Italy, with no future perspectives. I am not an adventurer, however I decided to leave my country and move to Norway, a place that has always fascinated me with its history and stunning natural landscapes. I have always been interested in medieval history, especially Viking history, and eventually this interest brought me here, at the University of Oslo, taking a master's degree in Viking and Medieval Studies.

The past two years have not been easy. A global pandemic hit the whole world, thus I spent three of my four semesters as student at home, without having much contact with colleagues and friends. In the meantime, I started to work on this MA-thesis, which is the result of my solitary research work from home. I in fact did not have the chance to confront with other MA-students while working on this dissertation, as it is normally the custom, and even though this may sound sad, it was actually an exciting challenge. The following pages are the final outcome. First and foremost, I want to thank my supervisors, Dr. Karoline Kjesrud and Dr. Kristen Mills, for their guidance and precious suggestions, which helped me to unravel myself in such a broad research topic, being the approach interdisciplinary.

A very special thank goes to my family, my parents Gianfranco and Nancy, and my sister Margareth, for all the support you gave me despite the distance. Thank you with all my heart for believing in me. Thank you to my godmother Tiziana, Titti, for always encouraging me to give my best, and trying to raise my consistently low self-esteem. Thank you especially to my boyfriend Olav, even though he does not wish to be mentioned, for everything you have done for me. You have been there during all the period I spent working on this thesis. You helped me reasoning with your calmness when I had my breakdowns, and motivated me when I was down, or discouraged.

*Hjertelig tusen takk* (thank you from all my heart) to the person who made me come to Norway, Francesca. I would have not been here or achieved these goals if it was not for you! Thank you also for being my proof-reader. A big thank you goes to my closest friends in Italy, Alberto, Alessia, Elisa, Giacomo, and Mattia. We know each other from high school, or even before, we grew up together, and even though our adult life is in different countries, you always know how

to make yourself feel close to my heart. Thank you also to my precious, Italian friend Caterina, who I met here in Oslo right after I moved. Thank you for our Italian “moments”, and the delicious dinners we cooked together to cheer us up after too much monotonous, Norwegian food.

Last, but not for importance, a special thanks to *Kristianiastudentenes Haandbryggeriet* (KSHB) and all its members. Thank you for all the good times we enjoyed together and thank you for having taught me how to brew a beer. It is an honour to be a member of such an inspiring student association.

*Oslo, November 2021*

Joan Elisabeth Rosa Brusin

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## CHAPTER ONE: INTRODUCTION

In the collective perception, the word beer<sup>1</sup> recalls moments of celebration, joy, and social gatherings. There is no doubt that in the history of mankind, beer has always played a fundamental role in the cultural and symbolic spheres, and although the perception we have of beer today may be different from that of our ancestors, beer still performs the important function of social aggregator, as it did in the past. Archaeological and written records of beer date back to the Neolithic when corn was domesticated and began to be cultivated by settled societies<sup>2</sup>. Archaeological evidence indicates that malting and mashing techniques were already known in Mesopotamia and Egypt around 4000 BC and 3000 BC<sup>3</sup>, while other sources testify that beer was also considered a ritual and sacred drink used in religious ceremonies.<sup>4</sup> Beer then became an integral part of the diet thanks to its high content in calories and good nutrients, and was indeed mainly drunk for this reason rather than for its intoxicating properties.<sup>5</sup> The cultural and ritual importance of beer spread especially in the Germanic societies settled north of the Alps, where grapes did not grow easily and thus it was difficult to produce wine.

The subject matter of this thesis regards beer brewing and its cultural implications in past societies. However, since the study of beer is an extremely wide topic which is covered by several disciplines depending on the perspective adopted, I deemed necessary to limit my inquiry in temporal and geographical frames, as well as in the material analysed and the methodology implemented. The temporal span within this research has been carried out comprises the late Iron Age and the Viking Age, roughly between the 8<sup>th</sup> century and the 11<sup>th</sup> century. Nevertheless, this investigation regards only cultural and ritual customs presumably associated to Scandinavian heathen culture, hence it does not aim to provide an interpretation of Viking society after Christianisation.<sup>6</sup> The geographical boundaries are set to the territory

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<sup>1</sup> In this thesis I will use the words “ale” and “beer” interchangeably, since their distinction has now disappeared in modern vocabulary. However, I shall privilege a more precise translation when referring to the Old Norse sources, thus *öl* would be translated into “ale” and *bjórr* would be “beer”. For a deeper clarification see Chapter 5.1 “The Terminology of Ale”.

<sup>2</sup> «Den klassiske ølhistoria starter i *Den levantiske korridoren*, også kalla *Den fruktibare halvmånen*. Han krummar seg frå nordaust i Anatolia i Tyrkia, gjennom Jordandalen til Libanon og Israel, Syria med Damaskusoasen og dalsøkket elva Eufkrat og Tigris, og når så sitt sørlegaste punkt i Iran», in Brunstad, *Norsk ølhistorie: frå Odins skål til i dag*, p. 10.

<sup>3</sup> Nelson, *The Barbarian's Beverage: A History of beers in Ancient Europe*, p. 10.

<sup>4</sup> Steinsland, *Norrøn religion*, pp. 276-278.

<sup>5</sup> Unger, *Beer in the Middle Ages and the Renaissance*, pp. 2-3.

<sup>6</sup> The operation of discerning the Cristian components from the literary sources written after Christianization might be however challenging.

corresponding to modern Norway, however, for the reasons clarified in the methodology (Chapter Three), the archaeological material has been limited to Trøndelag only. Female perspective is the *leitmotiv* of this dissertation, because we still know too little about women and the role they covered in past societies.

This thesis is structured into six chapters. In Chapter One I present the research question in the light of previous scholarship in the field of gender studies applied to Old Norse disciplines, and earlier research concerning the history of beer. Chapter Two outlines the theoretical framework of gender theory and offers support for the definition of the key terminology employed in this research. Besides, I provide some considerations about the interdisciplinary approach and its potential pitfalls. In Chapter Three I explain in detail the methodology I implemented for collecting and selecting the sources. In a specific section (Chapter 3.1) I describe in detail the experimental approach of brewing a beer that might resemble a Viking Age ale. The analysis of the sources is conducted in Chapter Four and Five, and for each section I included partial results. Chapter Six contain the final conclusions which are consequential to the application of the interdisciplinary methodology to the partial results.

## **1.1. Aim of the Thesis**

The scope of this thesis is to investigate how women in the Viking Age were connected to ale/beer and which social and cultural implications might have occurred in relation to their actions of brewing, serving and drinking ale. The questions I have attempted to answer are: how did the Vikings brew? Did they only brew large batches or is it reasonable to hypothesise a production in smaller batches? To which extent did women participate in brewing and in other activities concerning the drinking sphere? Which are the cultural and ritual meanings resulting from women's involvement? Due to the multi-disciplinary nature of the research, the investigation was conducted with an interdisciplinary approach, comprising sources and methodologies drawn from archaeology, archaeobotany, philology and gender studies. Since the corpus examined is extremely heterogeneous, the analysis of the sources has been divided into two sections.

In the first part (Chapter Four) the purpose was to determine which brewing procedures might have been employed in the Viking Age, therefore the data provided by previous research have

been re-examined and combined with considerations drawn from brewing knowledge<sup>7</sup> and an attempt of brewing a Viking ale with an experimental approach. The study of the gender attributed to each artefact, included in the archaeological corpus, served to define to what extent women could have been involved in brewing, serving and drinking ale. The second part (Chapter Five) aims to achieve a more comprehensive understanding of the cultural and symbolic connotations which ale had in association to women, by examining different kinds of written sources, such as saga narratives, eddic and skaldic poetry, and runic inscriptions. The starting point of this inquiry was based on Michael Enright's analysis of the ritual of the cup,<sup>8</sup> regarding the distribution of alcohol, which defines the social role of aristocratic women in the Germanic societies of the Iron Age. This thesis' scope is therefore to inquire all the stages related to the production and consumption of ale, by delving into the social and cultural meanings attributed to brewing, serving, and drinking ale, when these actions were performed by women.

## 1.2. Women in Old Norse Studies

The idea of writing a master thesis on women in the Viking Age and their connection with ale draws its origin from the awareness that there is no academic work that has discussed this subject matter in a comprehensive way, especially from the perspective of brewing. The interest on studying the life and the role of women in Old Norse societies as a specific academic field of research started roughly thirty years ago. Already towards the end of the eighties, scholars began to publish papers in which they investigated different aspects concerning women's life in the Viking and medieval Norse societies.<sup>9</sup> However, the first book-length publication in English<sup>10</sup> concerning women in the Viking Age, which dealt with several research questions and gave a comprehensive depiction of women's role in Viking society was the pioneering monograph *Women in the Viking Age* published in 1991 by Judith Jesch.<sup>11</sup> The interdisciplinary approach adopted by Jesch consists in the inclusion of sources comprising archaeological material, runic inscriptions, written material from "non-Scandinavians", iconographical

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<sup>7</sup> I am a homebrewer myself.

<sup>8</sup> Enright, Michael J., *Lady with a Mead Cup: Ritual, Prophecy, and Lordship in the European Warband from La Tène to the Viking Age*, (Dublin: Four Courts Press, 1996).

<sup>9</sup> See the research work of scholars such as Judith Jesch, Birgit Sawyer and Anne-Sofie Gräslund, to name some of the most representatives.

<sup>10</sup> Jesch, *Women in the Viking Age*, p. 3.

<sup>11</sup> Jesch, Judith, *Women in the Viking Age*, (Woodbridge: Boydell Press, 1991).

resources and Norse written sources as poetry and the saga of the Icelanders. However, the discussion is built in a more descriptive manner rather than analytical. A couple of years after Jesch, also scholar Jenny Jochens published two monographs regarding women in Old Norse society, *Women in Old Norse Society* (1995),<sup>12</sup> and *Old Norse Images of Women* (1996).<sup>13</sup> Conversely to Jesch, Jochens's research has been conducted by consulting only written sources – mostly prose narratives and compilation of laws,<sup>14</sup> and thus excluding an interdisciplinary methodology and not considering the contribution of archaeology. As pinpointed by Marianne Moen, these earlier works have been invaluable for having drawn the attention to the female component of the Viking Age society and for the influence they had on further studies. However, the methodology employed for reading and interpreting the sources can be criticised because the argumentations are mainly based on written material which has not been extensively supported by archaeological sources.<sup>15</sup>

A very good example of how a monograph about women in the Viking Age should combine different kind of source material is represented by the book *Valkyrie: The Women of the Viking World* by Jóhanna Katrín Friðriksdóttir and published last year (2020).<sup>16</sup> To support her argumentation in favour of a depiction of women whose role in Viking society was less subordinated than what it was thought. Viking Age women led indeed active lives characterised by the management of the house, or the farm even in absence of their husband, moreover they carried out weaving activities and produced objects which may have been sold, thus contributing to the household's economy.<sup>17</sup> In addition, women of high social rank took part actively in the political life of their time.<sup>18</sup> In order to recreate a depiction of women as close as possible to what they would have been in the Viking Age, Jóhanna Katrín Friðriksdóttir has therefore integrated medieval literary sources, with archaeological evidence, runic inscriptions, and iconographical sources. Such an interdisciplinary approach which takes into consideration different aspects of the Viking society, from diverse points of view, was a fundamental source of inspiration for this master-degree dissertation. The manner in which different typologies of

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<sup>12</sup> Jochens, Jenny, *Women in Old Norse Society*, (Ithaca and London: Cornell University Press, 1995).

<sup>13</sup> Jochens, Jenny, *Old Norse Images of Women*. The Middle Ages Series, (Philadelphia: University of Pennsylvania Press, 1996).

<sup>14</sup> Jochens, *Women in Old Norse Society*, pp. 3-4.

<sup>15</sup> Moen, *Challenging Gender: A reconsideration of gender in the Viking Age using the mortuary landscape*, p. 89.

<sup>16</sup> Jóhanna Katrín Friðriksdóttir, *Valkyrie: The Women of the Viking World*, (London: Bloomsbury Academic, 2020).

<sup>17</sup> Jóhanna Katrín Friðriksdóttir, *Valkyrie: The Women of the Viking World*, pp. 13, 16.

<sup>18</sup> Jóhanna Katrín Friðriksdóttir, *Valkyrie: The Women of the Viking World*, p. 13.

sources have been intertwined with each other has showed me how to deal in my research with an interdisciplinary methodology which also took into account the female perspective.

Another contribution concerning women in Norse Scandinavian society, however restricted to the field of literary sources is the very short article “Women in Sagas” wrote by Else Mundal,<sup>19</sup> in which the author provides a summary of women’s main characteristics which emerge from each saga genre. The differentiation between “realistic” and “non-realistic” sagas, therefore *Íslendingasögur* and *konungasögur* on one hand, and *fornaldarsögur* and *riddarasögur* on the other hand, constitutes an important element in the definition of women’s role in sagas’ prose narrative.<sup>20</sup> Women in *Íslendingasögur* and *konungasögur* are depicted as strong characters and connected to the political scene of their time, however they are not very often mentioned in the texts and play a subordinate role, whereas in *fornaldarsögur* and *riddarasögur* women have a more active role and they “may break out of the ordinary female sex role and act in the role normally reserved for men as a warrior, commander of an army, executor of revenge, or reigning queen or princess”.<sup>21</sup> Mundal’s article revealed essential for delineating which kind of saga genres were more appropriate to analyse for this survey. Although a more detailed clarification of the reasons that led me to choose some sources rather than others will be provided in Chapter Three, in which I shall explain the methodology and the selection of the sources, suffice to know that *fornaldarsögur* and *riddarasögur* constitutes the main core of the saga material surveyed, while *konungasögur* provides a smaller contribution for the same reasons explained by Mundal, i.e., scarcity of female characters mentioned in the texts.

Judy Quinn’s article “Women in Old Norse Poetry and Sagas”, included in *A Companion to Old Norse-Icelandic Literature and Culture*,<sup>22</sup> is an investigation on the subject matter of “femaleness” and its meaning in Old Norse skaldic and eddic poetry and saga literature,<sup>23</sup> by analysing some typical figures of Norse literary tradition, both mythological as Valkyries and norns, but also heroines and seeresses.<sup>24</sup> Based on a similar research question, however on the side of the “manliness”, we can find the recently published *Men and Masculinities in the sagas of Icelanders*, written by Gareth Lloyd Evans.<sup>25</sup> His investigation on masculinities and

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<sup>19</sup> Mundal, Else, “Women in Sagas”, in Pulsiano, P., Wolf, K. (eds.), *Medieval Scandinavia: An Encyclopedia*, (New York: Garland, 1993), 723-725.

<sup>20</sup> Mundal, Else, “Women in Sagas”, p. 724.

<sup>21</sup> Mundal, Else, “Women in Sagas”, p. 724.

<sup>22</sup> Quinn, Judy, “Women in Old Norse Poetry and Sagas”, in R. McTurk, (ed.), *A Companion to Old Norse-Icelandic Literature and Culture*, (Oxford: Blackwell, 2005), 518-535.

<sup>23</sup> Quinn, Judy, “Women in Old Norse Poetry and Sagas”, p. 518.

<sup>24</sup> Quinn, Judy, “Women in Old Norse Poetry and Sagas”, pp. 522-534.

<sup>25</sup> Evans, Gareth L., *Men and Masculinities in the sagas of Icelanders*, (Oxford: Oxford University Press, 2019).

“manliness” has showed that the new theories elaborated within the field of gender studies in the last years should also be applied in surveys concerning the role of men in Viking and medieval Norse Scandinavian society, not only on women. Some of the characteristics which Evans pointed out for men, can also be identified in some female figures, resulting in a depiction of the Norse society more fluid in the definition of what is masculine and what should be referred as feminine. This being said, a more exhaustive discussion about gender theory and terminology concerning the definition of gender and sex, such as “man”, “woman”, “sex”, “gender”, “feminine”, and “masculine”, is provided in Chapter Two.

Studies regarding the social role played by women in Viking and Middle Ages were not only carried out by investigating written sources, whether they are literary or legal, in fact research of this kind have also been conducted in the field of archaeology and runology. Influential was the research work that Birgit Sawyer did between the end of the eighties and the nineties (at the early stages of women’s studies as a discipline within the Old Norse research field) for the definition of the role of women in Viking Age society, through the analysis of Swedish runic inscriptions. Sawyer’s extensive surveys may be summed up by her book-length publication *The Viking-Age Rune-stones: Custom and Commemoration in Early Medieval Scandinavia*,<sup>26</sup> in which Sawyer points out that several Viking Age runestones in Sweden were carved in memory of women or commissioned by women. From the analysis of those runic inscriptions, Sawyer concludes that women could inherit, and that high status women might have had a certain degree of political power. The potentiality and methodological issues regarding the study of social history through runic inscriptions has been discussed by Judith Jesch in a paper published in 1994 titled “Runic inscriptions and social history: some problems of method”,<sup>27</sup> in which the author investigated the occurrence of women, in comparison with men, mentioned in Viking Age runestones found in Uppland, Sweden.

Of course, there have been surveys about women in connection with alcohol and the rituality of its distribution, which is the topic of Michael Enright’s *Lady with a Mead Cup*,<sup>28</sup> or “Kvinner med drikkebeger”<sup>29</sup> by Nanna Løkka. Both inquires focus on the role that women of high status

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<sup>26</sup> Sawyer, Birgit, *The Viking-Age Rune-Stones; Custom and Commemoration in Early Medieval Scandinavia*, (Oxford: Oxford University Press, 2000).

<sup>27</sup> Jesch, Judith, “Runic inscriptions and social history: some problems of method”, in J. Knirk (ed.) *Proceedings of the Third International Symposium on Runes and Runic Inscriptions, Grindaheim, Norway, 8–12 August 1990* (Runrön 9), (Uppsala: Swedish Science Press, 1994), 149-162

<sup>28</sup> Enright, Michael J., *Lady with a Mead Cup: Ritual, Prophecy, and Lordship in the European Warband from La Tène to the Viking Age*, (Dublin: Four Courts Press, 1996).

<sup>29</sup> Løkka, Nanna, “Kvinner med drikkebeger”, in K. Kjesrud, N. Løkka (eds.). *Dromingen i vikingtid og middelalder*, (Oslo: Scandinavian Academic Press, 2017), 127-153.

had in the ritual offering of the cup containing alcohol, served during drinking parties and according to a specific hierarchical order. Although these studies' central topic is the rituality of drinking, the research's subject matter is the drinking vessel itself, and the symbolic value that it had in the offering ritual. The aristocratic woman, or the lady, according to Michael Enright's definition, is therefore identified by the drinking cup, while the type of alcoholic beverage served is not particularly relevant for defining a woman and her role within the Germanic heathen society – Enright's work is in fact more centred on Germanic societies in general, rather than the Viking Age Scandinavia in its specificity. On the contrary, Nanna Løkka's work draws from Michael Enright's analytical category of the "lady with a mead cup" and develops the subject matter in the Scandinavia Viking Age context. Thus, Løkka's investigation concerns women with drinking vessels as iconographical theme, who have often been interpreted as Valkyries offering the drinking cup in Valhøll to the dead warriors or to Óðinn. However, Løkka's analysis of the connection that high-status women might have had with drinking vessels suggests that the drinking cup may have been a symbol of dignity and a marker of femininity in a pre-Christian Scandinavian society rather than a Valkyrie symbol.<sup>30</sup>

To conclude this section in which I attempted to provide an account of how, in the last thirty years, women studies have developed in the Old Norse research field, I wish to draw the attention on the fact that there is still a lot of research to do regarding women as brewers in a historical perspective, as very few has been written on this subject matter. In this regard, I would like to cite Elizabeth Ewan's account about Scottish women brewing beer in the Middle Ages, "For Whatever Ales Ye": Women as Consumers and Producers in Late Medieval Scottish Towns".<sup>31</sup> This contribution constitutes an interesting case study since it shows how women, living in medieval Scotland, were well integrated in the contemporary production and selling of beer, despite the fact that differences between men and women's duties were still extant. Ewan points out that brewing was part of the daily chores a woman had to take care of, thus it normally took place inside the household, as remarked also by Brunstad referring to Viking and medieval Scandinavia,<sup>32</sup> nevertheless, malting was mainly performed by men, although female malsters are also named in few instances.<sup>33</sup> The information provided by Ewan regarding

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<sup>30</sup> Løkka, "Kvinner med drikkebeget", pp. 143, 149.

<sup>31</sup> Ewan, Elizabeth, "For Whatever Ales Ye": Women as Consumers and Producers in Late Medieval Scottish Towns", in E. Ewan, M. M. Meikle (eds.), *Women in Scotland c. 1100-1750*, (East Linton: Tuckwell Press, 1999), 125-135.

<sup>32</sup> Brunstad, *Norsk ølhistorie: frå Odins skål til i dag*, p. 23.

<sup>33</sup> Ewan, "For Whatever Ales Ye": Women as Consumers and Producers in Late Medieval Scottish Towns", p. 128.

women brewers in Scotland are extremely interesting, in the sense that they offer an important starting point for further applications regarding the involvement of women in the actual process of brewing, and especially malt processing. Therefore, such considerations have also been contemplated when analysing the participation of Viking women in ale brewing.

### **1.3. Earlier Research on the History of Beer**

Brewing beer is a very old procedure meant to produce an alcoholic drink from the fermentation of grains. Archaeological traces show that a sort of drink similar to modern beer and produced by the fermentation of corn was already known by the ancient Egyptians and the populations that developed in Mesopotamia.<sup>34</sup> Moreover, it is likely that beer is older than what the archaeological evidence testifies. I consider the study of the history of beer, how it was produced and the modalities of its consumption a key point for surveying the social history of ancient societies, and in the specific case of this dissertation, to investigate Viking Age society. The complexity and width of this theme has led many scholars to approach the study of alcohol and beer from numerous viewpoints: whereas archaeologists generally focused their attention on the procedures and techniques used in the past, historians, sociologists and anthropologists have been more concerned about the social and religious connotations of alcohol and intoxicating drinks.

Max Nelson's book *The Barbarian's Beverage: A History of beers in Ancient Europe*<sup>35</sup> is an indispensable contribution which traces the history of beer from Greek and Roman times to the end of the Carolingian empire, by delimiting the geographical frame to Europe. In addition to historical and archaeological accounts, the author tries to provide interpretations for the two different drinking habits which distinguished the southern Greek and Latin areas, more inclined to drink wine, from the northern Germanic regions, which had stronger beer-drinking traditions. Even though the book is a very rich source of information about the history of alcohol in Ancient Europe, it does not delve into drinking customs among Northern Germanic populations. Another monograph of a generic nature is *Beer in the Middle Ages and the Renaissance* by Richard Unger.<sup>36</sup> In this work, Unger opens with an introduction about the origins of beer brewing in Mesopotamia and Egypt, by reporting evidence from both archaeological and

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<sup>34</sup> Nelson, *The Barbarian's Beverage: A History of Beers in Ancient Europe*, p. 1.

<sup>35</sup> Nelson, Max, *The Barbarian's Beverage: A History of Beers in Ancient Europe*, (London: Routledge, 2005).

<sup>36</sup> Unger, Richard W., *Beer in the Middle Ages and the Renaissance*, (Philadelphia: University of Pennsylvania Press, 2004).



documental sources.<sup>37</sup> However, after a short introductory part also about Greeks and Romans, as Nelson, Unger focuses the rest of his investigation on beer traditions developed within continental European cities and monasteries. It is important to remark that the production of beer in the main European trading cities developed in Europe from the Late Middle Ages and the Renaissance, concurrently with the development of the so-called “revival” of the arts and the growth of new political realities that stimulated production and trade and that led to the first examples of massive and “industrial” production in a pre-modern and pre-industrialised sense. Beer brewing during the Viking Age was simpler and the production was made in a smaller scale than what beer making became starting from the Late Middle Ages. Despite the lack of data about Scandinavia, two monographs by Nelson and Unger are though very useful tools for studying the history of beer in continental Europe.

The first exhaustive publication in English about Norwegian beer-brewing traditions is Odd Nordland’s *Brewing and Beer Traditions in Norway: The Social Anthropological Background of the Brewing Industry*<sup>38</sup>, published in 1969, in which the author has researched brewing traditions in rural Norway by using a methodology based on cultural anthropology. Nordland collected testimonies of these old customs by talking directly with the people that still brewed with the old techniques, handed down from generation to generation. A more recent work is represented by *Gårdsøl: Det Norske Ølet* by Lars Garshol.<sup>39</sup> The book registers Garshol’s travels around Norway for studying the surviving tradition of the Norwegian farmhouse ale, however, differing from the anthropological and sociological approach used by Nordland, Garshol’s survey is more descriptive, recording the several brewing procedures employed by the brewers he interviewed. Ale brewing is a conservative activity, still nowadays, therefore I deemed relevant for my research to study the old traditions employed in the past by the people who lived in rural Norway, because those techniques might have been preserved as they were performed in the Middle Ages, or even earlier, in the Viking Age. I am hence induced to presume that traces of Viking Age brewing procedures might have survived throughout the centuries and are then still performed when brewing the “Norwegian traditional farmhouse ale *gårdsøl*.”<sup>40</sup>

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<sup>37</sup> Unger mentions ancient collections of rules such as the “Code of Hammurabi” or laws regarding the beer taxation (Unger, *Beer in the Middle Ages and the Renaissance*, pp. 17-18).

<sup>38</sup> Nordland, Odd, *Brewing and Beer Traditions in Norway: The Social Anthropological Background of the Brewing Industry*, (Oslo: Universitetsforlaget, 1969).

<sup>39</sup> Garshol, *Gårdsøl: Det Norske Ølet*, (Oslo: Cappelens Damm, 2016).

<sup>40</sup> Norway is not the only country that managed to keep alive the production of a farmhouse ale, examples are *sahti* beer in Finland (Laitinen, *Viking Age Brew. The Craft of Brewing Sahti Farmhouse Ale*, (Chicago: Chicago Review

The most recent monograph centred on the history of Norwegian ale, however not accessible for English readers, is *Norsk øl-historie: frå Odins skål til i dag* by Sissel Brunstad,<sup>41</sup> which gives a wide overview on Norwegian ale from its origins to modern days. The author, in fact, provides much historical and socio-anthropological information about beer and its religious meanings among pre-Christian and Christian Scandinavians by using both archaeological evidence and written sources. On several occasions, Brunstad mentions the participation of women in the brewing process as part of the household chores, or furthermore their involvement with alcoholic beverages in sacrifices and religious rituals, in the guise of priestesses.<sup>42</sup>

On the side of academic research, studies related to the techniques and the ingredients used to brew beer in the Viking Age have been carried out in the fields of archaeology and archaeobotany. Already in the 1860s, Eilert Sundt hypothesised the use of brewing stones (*bryggestein*) and hot, fire-cracked stone for both brewing and cooking, since many rock fragments cracked in a particular way have been found in farmsteads in the Norwegian countryside,<sup>43</sup> however, not many archaeologists have investigated brewing stones since Eilert Sundt's time.<sup>44</sup> In the last decade, some research work has been conducted regarding fire-cracked stones, interpreted as potentially heating sources for brewing. Worthy of mention are the archaeological surveys on cultural layers and brewing stones directed by Geir Grønnesby and carried out in the region of Trøndelag. Grønnesby's research work has been focused on historical farmsteads which dates back from late Iron/Viking Age to Middle Ages in Ranheim (Trondheim),<sup>45</sup> and in Sparbu and Hitra (Nord-Trøndelag).<sup>46</sup> Another contribution in the investigation of Viking brewing techniques is represented by the research work conducted by Merryn Dineley and her husband Graham Dineley, who is a homebrewer, in archaeological sites in Iceland (Stöng) and Scotland, i.e., Orkney and Shetland. In their online article "Where Were the Viking Brew Houses", they argue in favour of the identification of certain facilities

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Press, 2019); gruit beer which is originally from the Netherlands and Germany (Unger, *Beer in the Middle Ages and the Renaissance*, p. 30); and a *pors* ale from the Gotland island, the Swedish *gotlandsdricku* (Viklund, "Beer brewing in medieval Sweden: archaeobotanical and documentary evidence", p. 243).

<sup>41</sup> Brunstad, *Norsk ølhistorie: frå Odins skål til i dag*, (Leikanger: Skald, 2019).

<sup>42</sup> Brunstad, *Norsk ølhistorie: frå Odins skål til i dag*, pp. 35-36.

<sup>43</sup> Grønnesby, "Hot Rocks! Beer brewing on Viking and Medieval Age farms in Trøndelag", p. 134; Grønnesby, Heen-Pettersen, "Gården i yngre jernalder - et spørsmål om erkjennelse? Belyst ved utgravningen av et yngre jernalders gårdstun på Ranheim", p. 180.

<sup>44</sup> Grønnesby, Heen-Pettersen, "Gården i yngre jernalder - et spørsmål om erkjennelse? Belyst ved utgravningen av et yngre jernalders gårdstun på Ranheim", p. 180.

<sup>45</sup> Grønnesby, Geir, Heen-Pettersen, Aina Margarethe, "Gården i yngre jernalder - et spørsmål om erkjennelse? Belyst ved utgravningen av et yngre jernalders gårdstun på Ranheim", *Viking* 79, (2015), 169-188.

<sup>46</sup> Grønnesby, Geir, "Hot Rocks! Beer brewing on Viking and Medieval Age farms in Trøndelag", in F. Iversen, H. Petersson (eds.), *The Agrarian Life of the North 2000 BC – AD 1000*, (Kristiansand: Portal, 2017), 133-150.

ale-houses/brew houses, which were previously interpreted as bath houses or saunas. Approaches of experimental archaeology have been also attempted with the aim of reconstructing the possible brewing procedures utilised in the past with an historical perspective. In this sense, it is significant to refer to Mika Laitinen's *Viking Age Brew. The Craft of Brewing Sahti Farmhouse Ale*,<sup>47</sup> regarding the Finnish tradition farmhouse ale *sahti* – similar in many aspects to the Norwegian *gårdsøl*, and “The Ancient Magic of Malt: Making Malt Sugars and Ale from Grain Using Traditional Techniques”,<sup>48</sup> in which the author, Merryn Dineley, explains the methods and techniques of malting and mashing the malts with an historical point of view.<sup>49</sup> A very quick overview is also provided by Johannessen's *Noe er i gjære - litt om øl og ølbrygging i eldre tid*<sup>50</sup> which describes very briefly the old beer brewing methods used in Norway.

Thanks to archaeobotanical surveys carried out in the last decades, it has been possible to identify which plants were used in the Viking Age as beer additives. In the paper *Beer brewing in medieval Sweden: archaeobotanical and documentary evidence*<sup>51</sup> the archaeologist Karin Viklund both archaeobotanical remains of sweet gale (*pors*, bog-myrtle, *Myrica gale*) found in the site of Vinberg, Halland (Sweden), and documentary evidence to determine that beer in tenth-century Sweden was a top fermented ale flavoured with sweet gale, which was used in substitution of hops. Besides, Viklund has detected in the site of Vinberg traces of cooking pits and hearths which were essential for warming up the liquids necessary for brewing. Also, in the Norwegian territory, archaeobotanical evidence of sweet gale have been found in Rogaland and Vestland and have been interpreted as beer additives used for brewing in the Viking Age.<sup>52</sup> Karl-Ernst Behre's “The History of Beer Additives in Europe – a review”, on the contrary, constitutes a very interesting study concerning how and in which timespan sweet gale and hop were spread in Europe, and how progressively hop replaced sweet gale as primarily beer additive. As for corn, the main ingredient of beer, it is noteworthy to mention Arne Anderson

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<sup>47</sup> Laitinen, Mika, *Viking Age Brew. The Craft of Brewing Sahti Farmhouse Ale*, (Chicago: Chicago Review Press, 2019).

<sup>48</sup> Dineley, Merryn, “The Ancient Magic of Malt: Making Malt Sugars and Ale from Grain Using Traditional Techniques”, in *EXARC Journal* 2021/2 Ancient Technology, [<https://exarc.net/issue-2021-2/at/ancient-magic-malt-making>] accessed 15.11.2021.

<sup>49</sup> The techniques investigated by Dineley predates the late Iron/Viking Age.

<sup>50</sup> Johannessen, “Noe er i gjære - litt om øl og ølbrygging i eldre tid”, in *Heftet Ringerike* 79, (2007), pp. 55-57.

<sup>51</sup> Viklund, “Beer brewing in medieval Sweden: archaeobotanical and documentary evidence”, in J. Klápště, P. Sommer (eds.), *Processing, storage, distribution of food: food in the Medieval rural environment: Rurality VIII, 7<sup>th</sup>-12<sup>th</sup> September 2009, Lorca, Spain = Les aliments dans le monde rural medieval: production, stockage, distribution, consommation*, (Turnhout: Brepols, 2011), pp. 235-243.

<sup>52</sup> Soltvedt, Eli-Christine, “Ølkrydder i vikingtid og middelalder: pors (*Myrica gale*)”, in *Frå haug ok heiðni* 2, (2009), 13-17.

Stamnes' survey "Effect of Temperature Change on Iron Age Cereal Production and Settlement Patterns in Mid-Norway",<sup>53</sup> on how the cereal production and crop yielding might have been influenced by changes in the average temperature in Iron Age Mid-Norway.

As it has been illustrated above, the previous scholarship has inquired beer largely as a cultural phenomenon which involved both social and religious spheres, however without giving adequate relevance to women. The focus of the former investigations was mostly on the relationships of power in Germanic and Scandinavian societies, while from the archaeological and archaeobotanical part the interest was addressed to the methods of production and the study of the tools and the ingredients employed, however these components have never been merged. Before moving forward and presenting the methodological framework, I shall describe more in detail how beer might have been brewed in the Viking/Middle Ages, based on the research works mentioned above, because there are some technical aspects which should be clarified for the reader before tackling the analysis of the sources.

### **1.3.1. A Reconstruction of how the Vikings Brewed based on Previous Research**

As an important source of nutrition, beer was a vital part of the Viking Age diet thanks to the high amounts of calories that it contains.<sup>54</sup> Actually, beer provides a high content of sugar, proteins, and carbohydrates, being these nutrients the result of the fermentation of grains. A common opinion that was quite spread among the academic community is that in the past beer was drunk habitually as a substitution of water because water was likely to be contaminated by bacteria and dangerous microorganisms, and therefore unsafe to drink.<sup>55</sup> On the contrary, the brewing process is a method which produces a safer beverage to drink than normal water because the liquid is pasteurised by boiling. However, two issues must be taken into consideration when discussing about beer in an historical perspective: the access and availability of corn, since barley, or other cereals, were also eaten as source of nutrition, for both humans and animals,<sup>56</sup> and the difficulties related to its preservation. Beer is indeed difficult to preserve and keep fresh, still in modern homebrewing, because it can easily get

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<sup>53</sup> Anderson Stamnes, Arne, "Effect of Temperature Change on Iron Age Cereal Production and Settlement Patterns in Mid-Norway", in F. Iversen, H. Petersson (eds.), *The Agrarian Life of the North 2000 BC – AD 1000*, (Kristiansand: Portal, 2017), 27-39.

<sup>54</sup> Unger, *Beer in the Middle Ages and the Renaissance*, pp. 2-3.

<sup>55</sup> Garshol, *Gårdsøl: Det Norske Ølet*, p. 81.

<sup>56</sup> Garshol, *Gårdsøl: Det Norske Ølet*, p. 81.

infected by oxygen or external elements, such as airborne bacteria, which can affect its flavour and drinkability. All these concerns shall be discussed and analysed in depth in Chapter Four.

Even though the beer we drink nowadays is clearly different in taste and look from what our Scandinavia predecessors used to drink, there are some fundamental steps in beer brewing that remained unchanged through the millennia: malting the grain, mashing the wort by pouring hot water over the malt, boiling the wort and adding beer additives as preservatives and flavours, and fermenting the wort with yeast.<sup>57</sup> The first important step is malting the grain, which is usually barley, however other types of grains such as oats, wheat and rye, can also be used depending on geographical and climatic reasons.<sup>58</sup> These considerations concerning malted cereals count also in reconstruction of historical brewing techniques. In a modern brewing guidebook, malting is defined as:

nothing more than a controlled sprouting followed by drying that may add varying amounts of color. Malting creates a product with a crumbly texture, a low gelatinization temperature, multiple enzyme systems essential for various brewing tasks, a readily available starch, plentiful proteins for yeast nutrition, and a neutral husk that makes a perfect filter with which to strain the sweet wort out at the end of the mash<sup>59</sup>.

In short, the malting process consists in several passages. Firstly, it is essential to water the grains in order to sprout them and make them softer. After a couple of days, the sprouted grains are ready to be kilned, which means that they are modified under “a controlled heating that removes moisture, stopping further development of the plant, and stabilizing the malt for long-term storage”.<sup>60</sup> Different levels of temperature produce different types of malt with multiple colours and aromas<sup>61</sup>, however it is more likely that in the Viking Age and Middle Ages the knowledge of how to malt grains was not as developed as it is nowadays, therefore medieval

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<sup>57</sup> Unger, *Beer in the Middle Ages and the Renaissance*, p. 4.

<sup>58</sup> For further and more exhaustive readings about malts and malting see Palmer, *How to Brew. Everything You Need to Know to Brew Great Beer Every Time*, pp. 43-45), Mosher, *Mastering Homebrew. The Complete Guide to Brewing Delicious Beer*, pp. 46-69), and Mallett, *Malt. A Practical Guide from Field to Brewhouse*, pp. 27-45, in which an entire chapter is dedicated to the history of malting.

<sup>59</sup> Mosher, *Mastering Homebrew. The Complete Guide to Brewing Delicious Beer*, (San Francisco: Chronicle Books, 2015), p. 47.

<sup>60</sup> Mosher, *Mastering Homebrew. The Complete Guide to Brewing Delicious Beer*, p. 51.

<sup>61</sup> This process is also called “browning” (Mosher, *Mastering Homebrew*, p. 51) and provides a colour and aroma range for malts that goes from the light-blond pilsner and pale malts, the base malts used in almost every types of beers, to the roasty/coffee dark malts. Those malts that have undergone a higher-level of kilning are called special malts, and their function is to give a darker colour and add more complex flavours to the beer. Examples of dark beers with an intense roasty and coffee taste are commonly stouts and porters.

brewers brewed their beer by only using one type of base light malt. For the sake of clarity, base malt is commonly light in colour and it constitutes the basis of beer recipes. Moreover, the kilning process in base malts is moderate and allows the malt to preserve the enzymes, rich of proteins, that are fundamental for the fermentation. In fact, during the wort mash the starch contained in the base malts is converted into sugars through a chemical reaction which involves the proteins contained in the enzymes. The fermentation happens when the sugar in the wort is eaten by the yeast and transformed into alcohol. On the contrary, specialty malts do not preserve any enzymes after being kilned (some types still have a lower enzymatic activity), therefore they are not essential for the fermentation but instead mainly used to add colour, aroma and more complex flavour to the beer.<sup>62</sup>

The brewing procedures I am about to describe are only hypotheses based on testimonies and discoveries made so far and discussed above. The sources' nature is problematic because most of them are organic and extremely perishable, consequently it is almost impossible to acquire certain conclusions. I just wish to pinpoint that the description of the brewing process possibly performed in the Viking Age which will follow below is very reductive and simplistic, since the purpose of this section is not to provide a complete description of all the potential solutions adopted in the Viking Age, on the contrary, the aim is to give a basic knowledge so that also a reader with no familiarity with beer brewing could understand my argumentation. As a result, I am not able to discuss all the probable manners and different steps in details, therefore the method illustrated will be one of many which might have been adopted.

First of all, it is important to define the amount of beer that was brewed each time. All the examples of Norwegian farmhouse ale reported by Garshol have been brewed in quite big cauldrons<sup>63</sup>, for this reason it may seem realistic to conclude that the standard amount of ale brewed in Scandinavia in ancient times may have been around 150/200 litres. This seems more likely if we keep in mind that beer was especially brewed for special festivities, such as religious celebrations (*blót* as one of the most common), for the so-called rites of passage (weddings, childbirth, funerals), for drinking feasts, and for annual gatherings at the *þing*. However, this data shall be further discussed in Chapter Four. Big and spacious tubs, or cauldrons, were therefore required. Furthermore, if we refer to the brewing techniques used by the brewers

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<sup>62</sup> Mosher, *Mastering Homebrew. The Complete Guide to Brewing Delicious Beer*, pp. 55-63.

<sup>63</sup> Brewers who follow the tradition generally brew around 150 litres at a time (Garshol, *Gårdsøl: Det Norske Ølet*, p. 132).

interviewed by Lars Garshol, we must consider the employment of two or three of these large vessels, depending if the wort was boiled or not.<sup>64</sup>

If accepting the hypothesis of the three vessels<sup>65</sup>, one was used to prepare a juniper decoction (*einerlåg* in modern Norwegian<sup>66</sup>) and warm up the water, the other two were used respectively for mashing and boiling. The decoction was made by soaking branches of fresh juniper<sup>67</sup> in hot water. It was indeed very important to use juniper in the brew because of its antiseptic characteristics, meaning that the beer was less liable to get infected or go bad easily.<sup>68</sup> During the second step, the mash, the grinded malts are added and mixed with a warm liquid that generally is within a temperature of 49-77 °C and this temperature should be kept for all the mash.<sup>69</sup> In the Viking Age the liquid was usually the juniper decoction, but sometimes it could also or only be water. After a couple of hours, the wort – the product of the mash – is moved from the second tub to a third tub to be boiled. If the juniper decoction was not entirely added in the wort during the mash, it would be added right before boiling.<sup>70</sup> During this final step, beer additives are added to the boiling wort to give taste and preservative properties. Archaeobotanical and archaeological traces indicate that the most common beer additives were *Myrica gale* (*pors/bog-myrtle/sweet gale*), *Achillea millefolium* (*ryllik*), hops (*humulus lupulus*).<sup>71</sup> It is supposed that hop was not an autochthon plant in Scandinavia, but instead it was introduced by the German Hanse in the thirteenth century.<sup>72</sup> On the contrary, juniper cannot be considered as a beer additive because it was infused beforehand in hot water, to prepare the

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<sup>64</sup> The three-kettle technique is still in use in modern brewing. Many homebrewers prefer to use three kettles rather than an automatic all-in-one system.

<sup>65</sup> These vessels might have been made of wood or metal alloy as bronze or copper.

<sup>66</sup> The etymology of *einerlåg* comes from the Old Norse words *einir* for “juniper” and *lǫgr* for “water, any liquid”, Zoëga, *Concise Dictionary of Old Icelandic*, p. 107, and p. 283. According to “Det Norske Akademis Ordbok” the word *låg* has three meanings: (1) decoction of plants (*utkok av planter*), therefore it is fundamental to boil the water; (2) the water that is poured over the malt for brewing (*vann som helles over maltet til brygging*); (3) separated liquid (*utskilt væske*), see [https://naob.no/ordbok/1%C3%A5g\\_2](https://naob.no/ordbok/1%C3%A5g_2) [07.10.2021].

<sup>67</sup> It was important that the juniper branches were green and without the berries. As a result, beer could have been brewed only in specific periods of the year, i.e., when the juniper was fresh.

<sup>68</sup> Odd Nordland explains that the juniper decoction was also used as cleansing agent to clean the vessels used for brewing in traditional Norwegian brewing (Nordland, *Brewing and Beer Traditions in Norway: The Social Anthropological Background of the Brewing Industry*, pp. 121-124).

<sup>69</sup> Palmer, *How to Brew*, p. 12.

<sup>70</sup> In some cases, the boiling step may be skipped by the brewer because the pasteurisation of the beer would be obtained only by the hot decoction and the addition of beer additives and preservatives. The *råøl* (raw beer) is a beer that is not boiled.

<sup>71</sup> Garshol, *Gårdsøl: Det Norske Ølet*, pp. 110-119.

<sup>72</sup> Viklund, “Sweden and the Hanse. Archaeological aspects of changes in farming, gardening and dietary habits in medieval times in Sweden”, p. 128.

decoction – so therefore not added to the wort at the end of the boil. Another use was as a strainer.<sup>73</sup> Other less frequent beer spices were alder, straw, *hypericum*, and caraway.<sup>74</sup>

At the end of the boiling, the wort should be cooled down to a temperature around 30-40° C, defined in the old recipes as “milk temperature” or “blood temperature”<sup>75</sup>, to make it ready to pitch the yeast. This temperature is indeed the perfect warmth to pitch *kveik* yeast<sup>76</sup>, the traditional Norwegian yeast used in the Norwegian farmhouse ale, *gårdsøl*. It is highly probable that a similar kind of yeast was used during the Viking Age, since it is a resistant strain of yeast that tolerates to be stored and reused several times. It is also exceptionally easy to use as it does not require any kind of temperature control – as far as the room or the surrounding temperatures are quite high. Another method applied to start the fermentation process was to let the wort be naturally attacked by microorganism residing in the air, although such procedure is less reliable and could result in troubles in the fermentation.

Above, I tried to describe in simple terms how the Vikings may have brewed their beer, however there are still some pending questions that I would like to shortly tackle in the following lines, although they will be more extensively discussed afterwards. First and foremost, how did the Vikings heat up such big amounts of water and grains for many hours? Just by using brewing stones as Geir Grønnersby’s research would suggest? Secondly, how is it possible that women were able to brew such quantity of beer as part of their normal chores? Perhaps, the method I have just illustrated is the one used to brew ale for big events, rituals, ceremonies, and drinking feasts in which also men were involved, while what women brewed in the household was something different, and more likely in smaller amounts. I will try to answer to this question in the following chapters.

In the following, it is illustrated a hypothetical representation of the brewing procedure employed as it is explained in the previous pages<sup>77</sup>. I have not included any kind of heating source in this scheme. However, according to the two theories presented, in one case the metal

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<sup>73</sup> Unger, *Beer in the Middle Ages and the Renaissance*, p. 32.

<sup>74</sup> Viklund, “Beer brewing in medieval Sweden: archaeobotanical and documentary evidence”, pp. 239-242; Garshol, *Gårdsøl: Det Norske Ølet*, pp. 110-119; Behre, “The History of Beer Additives in Europe – a review”, pp. 35-48.

<sup>75</sup> Garshol, *Gårdsøl: Det Norske Ølet*, p. 62.

<sup>76</sup> *Kveik* is a yeast strain that ferments at a very high temperature and in a very short time. It is worth mentioning that an ale beer (high/top-fermented beer) ferments in about two weeks with a temperature of about 18-21° C, while a farmhouse ale pitched with *kveik* ferments in less than a week, usually in 3-4 days, with a range temperature of 25-40° C, or slightly higher.

<sup>77</sup> The scheme’s structure has been built up following the same design employed by Garshol (see Garshol, *Gårdsøl: Det Norske Ølet*, pp. 16, 69, 103, 127).



cauldron is placed over a hearth or warmed up with brewing stones, in the other hypothesis hot rocks are inserted inside a wooden tub.

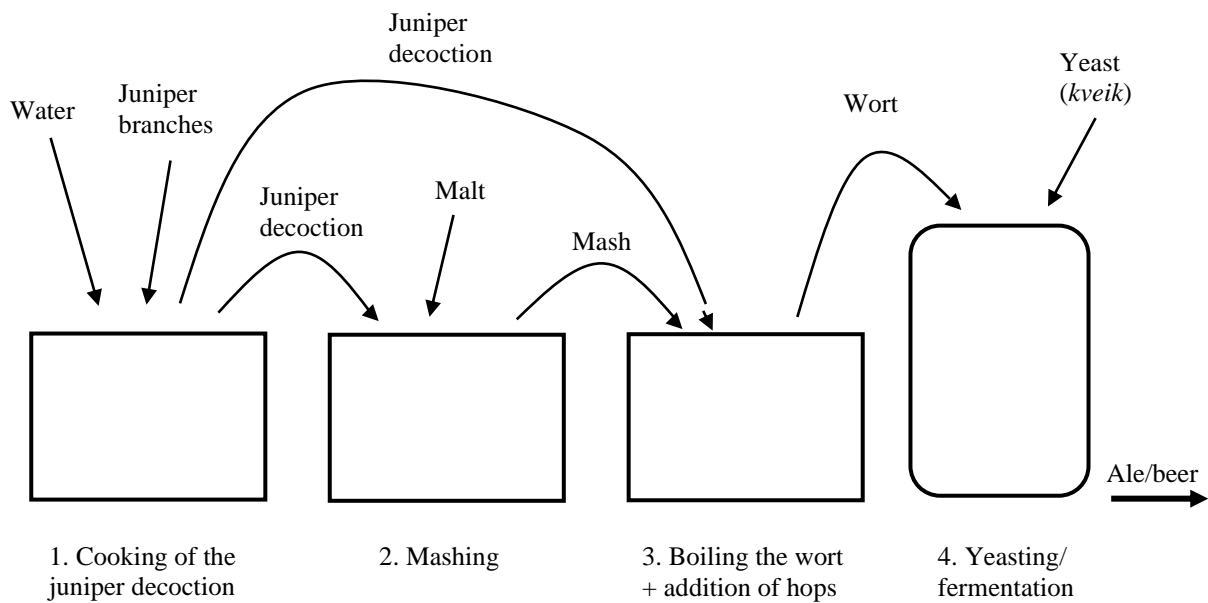


Figure 1. Illustration of the brewing steps which might have been performed in the Viking Age.

In this representation (figure 1) I considered the employment of three vessels, one for preparing the *einerlåg*, one for mashing, in which the ground grains are mixed with warm *einerlåg*, and a final optional vessel for boiling the wort with the addition of other flavouring plants, as for example hops in the scheme. At the end of boiling, the final step consists in transferring the wort in another vessel where fermentation can occur.

## CHAPTER TWO: THEORETICAL FRAMEWORK

### 2.1. Gender Theory

The inquiry work carried out in this dissertation has its theoretical foundations in gender studies and interdisciplinarity. When approaching a research whose perspective is gender focused, and whose purpose is to study the social role that women had in the past, it is essential to start by giving a definition of “gender” and “sex”. The concept of “gender”, which derives directly from “sex roles”, appeared in the early 1970s,<sup>78</sup> and if we refer to the definition given by Ann Oakley in *Sex, Gender and Society* (1972), «“gender” is a matter of culture: it refers to the social classification into “masculine” and “feminine”», while «“sex” is a word that refers to the biological differences between male and female: the visible difference in genitalia, the related difference in procreative function». <sup>79</sup> Hence, “sex” is a biological category whereas “gender” is cultural constructed, so the delineation of what is “masculine” and what is “feminine” varies, and has varied, according to historical periods and cultures.

In her article “Gender: Still a useful category of analysis?”<sup>80</sup> the historian Joan Wallach Scott reflects again on some considerations she advanced in 1986 in her article “Gender: A useful category of historical analysis”<sup>81</sup> regarding “gender” as a category for studying social history. Wallach Scott concludes arguing that «gender is still a useful category of analysis if used in a critical way, i.e., the focus ought to be not on the roles assigned to women and men, but on the construction of sexual difference itself». <sup>82</sup> Besides, gender is a useful category of analysis because it «requires us to historicize the ways sex and sexual difference have been conceived». <sup>83</sup>

The theoretical interrogations regarding the relationship between sex and gender have developed further in the decades after the formulation given by Oakley at the beginning of the 1970s. The influence of the theories formulated by philosophers of feminism, such as Judith Butler,<sup>84</sup> have highlighted that the clear distinction made between “sex” and “gender” is «a false

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<sup>78</sup> Delphy, “Rethinking sex and gender”, p. 2.

<sup>79</sup> Oakley, *Sex, Gender and Society*, p. 16.

<sup>80</sup> Wallach Scott, Joan W., “Gender: Still a useful category of analysis?”, in *Diogenes* 225, (2010), 7-14.

<sup>81</sup> Wallach Scott, Joan W., “Gender: A useful category of historical analysis”, in *The American Historical Review* 91 (5), (1986), 1053-1075.

<sup>82</sup> Wallach Scott, “Gender: Still a useful category of analysis?”, p. 10.

<sup>83</sup> Wallach Scott, “Gender: Still a useful category of analysis?”, p. 13.

<sup>84</sup> Butler, Judith., *Gender Trouble: Feminism and the Subversion of Identity*, (New York: Routledge, [1990] 2006).

one, since if gender could be culturally constructed, so could the biological meanings of sex».<sup>85</sup> In the book *Gender Trouble: Feminism and the Subversion of Identity* (1990), Butler indeed disputes the rigidity of the binary division of gender into male/female, masculine/feminine, man/woman, building therefore the foundations for the core theory of queer formulations.<sup>86</sup> Queer theory rejects all the traditional categories associated to gender and sexuality, like male/female and homosexual/heterosexual, however, a clear definition of queer is challenging to provide because, as Jefford Franks has pointed out, «queer cannot be defined by what it is, but rather what it is not: it is existence beyond and resisting cis-heteropatriarchal norms».<sup>87</sup> What it is certain about queer theory is its contribution in opening the theoretical discourse on new perspectives of analysis based on gender fluidity, hence questioning the cultural categorisation of society polarised in a rigid binary structure, which sees the opposition of men and masculinity, on one side, and women and femininity on the other.

These theoretical formulations concerning gender, sex, and sexuality elaborated within feminism, have then been applied in many academic disciplines as an analytical category for investigating research questions from and with a female perspective. As for the Old Norse study field, some of the main contributions grounded in the gender studies approach have already been mentioned in Chapter One. Nevertheless, I wish to draw the reader's attention to some further considerations, in the light of what I have discussed above about gender theorisation. Influenced by Judith Butler's critical argument against a two-gender binary classification of society, Carol Clover theorised in her provocative article "Regardless of Sex: Men, Women, and Power in Early Northern Europe" a one-gender system applied to Old Norse society.<sup>88</sup> Clover's interpretation of Old Norse society draws its theoretical foundations from Thomas Laqueur's single-sex model<sup>89</sup> and Preben Meulengracht Sørensen's work on masculinity,<sup>90</sup> however the argumentation is formulated on a selective reading of medieval texts, as later critics have highlighted.<sup>91</sup> Thus, in such gender fluid social structure the dichotomy is constituted by

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<sup>85</sup> Wallach Scott, "Gender: Still a useful category of analysis?", p. 7.

<sup>86</sup> Butler, Judith., *Gender Trouble: Feminism and the Subversion of Identity*, pp. 1-46.

<sup>87</sup> Jefford Franks, "Valföðr, vǫlur, and valkyrjur: Óðinn as a queer deity mediating the warrior halls of Viking Age Scandinavia", p. 32.

<sup>88</sup> Clover, Carol J., "Regardless of Sex: Men, Women, and Power in Early Northern Europe", in *Speculum* 68 (2), (1993), 363-387; Jóhanna Katrín Friðriksdóttir, "Gender", p. 234.

<sup>89</sup> Laqueur, Thomas, *Making Sex: Body and Gender from the Greeks to Freud*, (Cambridge, Harvard University Press, 1990).

<sup>90</sup> Meulengracht Sørensen, Preben, *The Unmanly Man: Concepts of Sexual Defamation in Early Northern Europe*, (Odense: Odense University Press, 1983).

<sup>91</sup> Jóhanna Katrín Friðriksdóttir, "Gender", p. 234; Evans, *Men and Masculinities in the sagas of Icelanders*, pp. 11-12.

the categories of *hvatr* (male, bold, active, vigorous) and *blauðr* (female, of beast),<sup>92</sup> hence a distinction between “hard” and “soft”, i.e., “strong” and “weak”.<sup>93</sup>

The traditional representation of Viking women considers them as passive elements of the society, in opposition to the active part, i.e., men, depicts almost exclusively, therefore women are commonly depicted as housewives who take care of the household and the children, but with a very limited functional area.<sup>94</sup> When discussing about the daily activities carried out by Viking women, scholars often refer to a threshold, symbolised by the household.<sup>95</sup> The dichotomy between men and women and their respective roles in society are therefore defined by that threshold, hence men were involved in farming, they could travel, trade, or participate at legal assemblies (*utanstokks*), whereas women’s duties concerned the sphere of the household (*innanstokks*).<sup>96</sup> This clear distinction between what is considered masculine – warfare, work in the fields, politics, and what is feminine – cooking and managing the household’s economy, especially influenced by a binary depiction of the Viking society provided by archaeological assemblages and saga literature, has been questioned in the last decades. Thanks to the theoretical support offered by gender studies’ formulations, which revealed fundamental for the reinterpretation of the material available to us, it has been possible to demonstrate that Viking society was not as strictly binary polarised, man/woman, male/female, masculine/feminine, as it was thought before. On the contrary, it is reasonable to presume a certain degree of gender fluidity, possibly non-binary,<sup>97</sup> which it is also confirmed by archaeological excavations showing that swords and weapons can also be found in female burials,<sup>98</sup> while cooking implements were included among the grave goods of men’s graves.<sup>99</sup>

In the field of philology, the queer theoretical framework, and the theorisation of gender fluidity within Viking society have been employed as analytical categories by Amy Jefford Franks in her article “Valföðr, vöður, and valkyrjur: Óðinn as a queer deity mediating the warrior halls of

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<sup>92</sup> Clover, “Regardless of Sex: Men, Women, and Power in Early Northern Europe”, pp. 363-365; Evans, *Men and Masculinities in the sagas of Icelanders*, pp. 11-12; Jóhanna Katrín Friðriksdóttir, “Gender”, p. 234.

<sup>93</sup> Evans, *Men and Masculinities in the sagas of Icelanders*, p. 11.

<sup>94</sup> Løkka, “Vikingtidskvinnen i ettertidens lys”, p. 17.

<sup>95</sup> Jóhanna Katrín Friðriksdóttir, “Gender”, p. 230.

<sup>96</sup> Moen, *Challenging Gender: A reconsideration of gender in the Viking Age using the mortuary landscape*, pp. 1-2; Løkka, “Vikingtidskvinnen i ettertidens lys”, p. 22; Jóhanna Katrín Friðriksdóttir, “Gender”, p. 230.

<sup>97</sup> In the case of the inhumation found at Suontaka Vesitorninmäki, Hattula, Finland, the deceased is affected by the Klinefelter syndrome, meaning that the DNA shows sex-chromosomal aneuploidy XXY (Moilanen *et al.*, “A Woman with a Sword? – Weapon Grave at Suontaka Vesitorninmäki”, p. 8).

<sup>98</sup> Moilanen, U., Kirkinen, Tuija, S., N., Rohrlach, A., Krause, J., Onkamo, P., & Salmela, E., “A Woman with a Sword? – Weapon Grave at Suontaka Vesitorninmäki”, in *European Journal of Archaeology*, (Cambridge University Press, 2021), 1-19; Gardeła, Leszek, “Warrior-Women in Viking Age Scandinavia? A Preliminary Archaeological Study”, in *Analecta Archaeologica Ressoiviensia* 8, (2013), 273–339.

<sup>99</sup> Moen, *Challenging Gender: A reconsideration of gender in the Viking Age using the mortuary landscape*, p. 71.

Viking Age Scandinavia”,<sup>100</sup> in which she examines Óðinn’s sexuality and gender identity to investigate how he, Óðinn, performs as a mediator between the roles of men and women within the warrior halls. Runologist Henrik Williams, instead, suggests the application of the queer theory as a methodological approach for analysing what it is deviant and “abnormal”.<sup>101</sup> Williams’ speculation might not be convincing, however, his example shows that the theoretical frameworks elaborated within gender theory have the potentiality to be applied in different fields of research, and therefore opening to new interpretations.

## 2.2. Considerations about Interdisciplinarity

Interdisciplinarity<sup>102</sup> means that data and theoretical assumptions from different research fields are combined to obtain results which, otherwise, would be impossible to achieve using only information from a single discipline. This approach is particularly useful when the purpose of the research is to analyse cultural and sociological behaviours, whose complexity require the support of several other disciplines. In theory, the interdisciplinary approach would therefore constitute an advantage for the researcher, as more data and different prospects would clearly enrich the argumentation providing a broader insight on the topic studied. However, pitfalls and theoretical inaccuracies may be encountered. It is indeed true that the range of academic fields a researcher can master is limited, therefore it is clear that he or she might be more prepared in some disciplines, while for others his/her preparation may not be as thorough. Consequently, one or more disciplines would prevail on others, resulting in a survey whose methodological approach cannot be completely considered as interdisciplinary, but rather crossdisciplinary<sup>103</sup> or transdisciplinary<sup>104</sup>. Secondly, the sources themselves could represent an impediment to the success of the interdisciplinary approach, as their lack/availability or nature may not be suitable for a comparison with the results drawn from other disciplines. With these considerations in mind, I wish to assert that this research aims at interdisciplinarity, and the methodology applied

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<sup>100</sup> Jefford Franks, Amy, “Valfǫðr, vǫlur, and valkyrjur: Óðinn as a queer deity mediating the warrior halls of Viking Age Scandinavia”, in *Scandia: Journal of Medieval Norse studies* 2, (2019), 28-65.

<sup>101</sup> Williams, *Runestone Inscriptions and Queer Theory*, p. 11.

<sup>102</sup> Interdisciplinary: integrating knowledge and methods from different disciplines, using a real synthesis of approaches Refsum Jensenius, *Disciplinarity: intra, cross, multi, inter, trans*, [https://www.arj.no/2012/03/12/disciplinarity-2/] accessed 26.11.2021.

<sup>103</sup> Crossdisciplinary: viewing one discipline from the perspective of another Refsum Jensenius, *Disciplinarity: intra, cross, multi, inter, trans*, [https://www.arj.no/2012/03/12/disciplinarity-2/] accessed 26.11.2021.

<sup>104</sup> Transdisciplinary: creating a unity of intellectual frameworks beyond the disciplinary perspectives Refsum Jensenius, *Disciplinarity: intra, cross, multi, inter, trans*, [https://www.arj.no/2012/03/12/disciplinarity-2/] accessed 26.11.2021.

aspires to integrate knowledge and methodologies acquired from research fields very different among each other, to finally obtain a comprehensive synthesis of the relationship that women in the Viking Age had with ale.

## CHAPTER THREE: METHODS AND SOURCES

The analytical approach adopted in this survey is interdisciplinarity. The study of beer production, as well as the cultural and ritual implications that derive from its consumptions cannot be tackled with the sole assistance of an academic discipline. To achieve a more comprehensive study that can to some extent answer fully to my research questions, it has been necessary to analyse and then merge sources of different kinds, therefore, for this dissertation I used quantitative methods to systematise and organise the sources, and qualitative methods to interpret the individual sources. The archaeological material has been utilised to give a deeper understanding of how the Vikings brewed, while my practical knowledge has been utilised for finding possible parallels in the archaeological material for Viking brewing equipment. I analysed the literary sources qualitatively in order to understand the relationship that women had with beer, and under which circumstances they came into contact with that drink. Thereafter, I compared the possible cultural and ritual meanings in the literary sources and the runic inscriptions that ale had in correlation to the social role covered by women in the Viking society.

An approach of experimental archaeology has been attempted by brewing a “modern” version of Viking ale. This experiment was useful for understanding how the key steps required for brewing might have been handled in the Viking Age. Besides, it was fundamental for determining the possible issues related to fermentation, and it contributed to the building of considerations, based on technical viewpoints, which have been used for discussing possible different brewing procedures. The first section of the survey investigates how beer was produced, by taking into considerations all the steps necessary to obtain beer, and how they might have been executed in the Viking Age. For this reason, I relied mainly on the archaeological data and the technical knowledge concerning brewing beer. If on one hand, the first section of this research aims at explaining how beer was produced with a more gender-neuter perspective,<sup>105</sup> on the other hand, a female-centred investigation has been drawn in the second part of the survey, in which the attention has been addressed to the cultural and ritual meanings that ale had within Viking society. The investigation of these subject matters was

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<sup>105</sup> Beer brewing is a genderless activity that involved both men and women, however a distinction between male and female gender has been recorded in the archaeological material in correlation to the identification of the gender of the burials, and the occurrence of specific objects in female or male grave goods.

realised with the examination of literary sources and runological material. Legal sources have been excluded because they record laws for the regulation of beer production written down after Christianization.<sup>106</sup>

### 3.1. The Methods employed for Defining the Literary Sources

The collection of the literary sources has been conducted by consulting Inger Boberg's book *Motif-Index of early Icelandic literature*,<sup>107</sup> which has been essential for the identification of saga motifs regarding the drinking sphere. All the entries related to the semantic sphere of drinking, serving alcohol, banquets or drinking parties, as well as the key words "ale", "beer", and "*drekka brúðlaup*" have been consulted. After this preliminary phase, I analysed all single entry reported for each motif category and subsequently selected those examples citing women (excluding the occurrences depicting only men) in the act of brewing ale, serving alcoholic beverages, or enjoying feasts and banquets, or somehow referred to women in association to alcoholic drinks. However, several episodes also record the presence of male characters, as they interact with the women involved in the action illustrated by the source. All the evidence has then been organised in a table according to the criteria of the action described, key words, gender of the mentioned characters, the typology of source (prose, poetic or skaldic), the saga genre, where and when the action takes place, and the supposed period and location in which the material was compiled.

The examination of the literary sources was mainly carried out with the analysis of the category "action", which is organised into five groups. The first group consists in the action of "brewing" and displays one single example. The second deals with the act of "serving" and contains nineteen instances which differentiate among each other for the type of alcoholic beverage served, therefore resulting in the following categories: "serving", "serving ale", "serving poisonous ale", "serving drugged drink", "serving mead", and "bearing/serving wine". The third class, "serving/drinking", includes four episodes in which women are represented both serving and drinking – two in relation to ale/beer, one referring to wine, and one mentioning both ale and wine. Twelve examples of women only drinking are collected in the fourth group,

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<sup>106</sup> For instance, *Gulapinslög* funeral and inheritance ale (chapter 23) in *Gulatingslova = Den elder Gulatingslova*, red. by Eithun, Rindal, Ulset, pp. 46-47, or the decree to brew the ritual beer for celebrating Christmas in Gulating Act and Frostating Act, see [<https://forskning.no/jul-alkohol-og-narkotika-historie/juleol---en-hedensk-tradisjon/1090262>] accessed 13.11.2021.

<sup>107</sup> Boberg, Inger M., *Motif-Index of early Icelandic literature*, (Copenhagen: Bibliotheca Arnamagnæana, vol. 27, 1966).



“drinking”. A further differentiation among the typology of drinks is also provided for this group, hence “drinking ale”, “drinking mead”, and “drinking wine”. The fifth category, “banquet”, lists five episodes in which women participate to a feast, however without directly specifying whether they serve or drink. Their presence is in fact only acknowledged, so their active participation is just alluded.

Moreover, for each literary source it has been identified one or more words referring to the alcoholic drink named in the text, however those words do not appear in all the literary texts. The key words recorded in the table are *öl* (ale), and the derived words *öldrum*, *festaröl* and *ölrúnar* (the ale of the runes), *bjórr* (beer), *mungat* (homebrewed ale) and the composite word *mungatserð*, *mjóðr* (mead), *vín* (wine), *drykk* (the noun drink) and *drykkjumál*, and *drekka brúðlaup* (wedding toast). The collection of key words had the scope to highlight the occurrence of different kinds of beverages in association with the actions of brewing, serving, or drinking.

The texts collected belong to different literary genres and can be grouped into three macro categories: saga literature, Snorra Edda and poetry. The genres of prose narratives examined in this dissertation comprises legendary sagas (*fornaldarsögur*), Kings’ sagas (*konungasögur*), and chivalric sagas (*riddarasögur*). One short reference is from the sagas of the Icelanders (*Íslendingasögur*). As for the saga material, I heavily relied on *fornaldarsögur*, because it is the saga genre in which women are given more space of action compared to the other genres,<sup>108</sup> although they are characterised by a high content of fictional and supernatural elements.<sup>109</sup> These features, i.e., supernatural elements and heroic figures of legendary characters, pose a series of problems in the use of *fornaldarsögur* as historical sources. Besides, the time frame covered by the stories they narrate refers to a mythical, ancient past “of the Nordic countries before the colonisation of Iceland”.<sup>110</sup> If on one hand the legendary sagas do not constitute a reliable source for a historical investigation of the Scandinavian Norse past, on the other hand, their strong connection with the folkloristic and indigenous traditions<sup>111</sup> represent a starting point for studying the older customs that may have survived throughout the centuries, from the late Iron/Viking Age to the medieval Iceland of the thirteenth-fourteenth century. It is on these assumptions that I based my choice to employ the legendary sagas as sources for this survey, although *fornaldarsögur* are among the most fictional saga genres.<sup>112</sup> The instances discussed

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<sup>108</sup> Jesch, *Women in the Viking Age*, p. 5.

<sup>109</sup> Tulinius, *The Matter of the North: The Rise of Literary Fiction in thirteenth-century Iceland*, pp. 18-19, 42.

<sup>110</sup> Tulinius, *The Matter of the North: The Rise of Literary Fiction in thirteenth-century Iceland*, p. 18.

<sup>111</sup> Tulinius, *The Matter of the North: The Rise of Literary Fiction in thirteenth-century Iceland*, p. 11.

<sup>112</sup> As well as *riddarasögur*. See summary table of narrative prose genres compiled by Stephen A. Mitchell (Mitchell, *Heroic Sagas and Ballads*, pp. 16-18).

in this inquiry have been drawn from six sagas: *Hálfs saga ok Hálfsrekka*, *Völsunga saga*, *Bósa saga ok Herrauðs*, *Hálfðanar saga Eysteinsonar*, *Hrólfs saga Gautrekssonar* and *Hrólfs saga kraka ok kappa hans*.

A minor contribution in the number of episodes used for my argumentation is provided by the Kings' sagas and the chivalric sagas. As for the *konungasögur*, I decided to exclusively use *Heimskringla* as source from this genre, because the author, despite the work being a chronicle centred on male figures of power, still gave some space to female characters, who occasionally appear in the text.<sup>113</sup> Besides, I restricted the analysis to those tales whose temporal framework is set before Christianisation, therefore *Ynglinga saga*, *Hákonar saga góða* and *Haralds saga ins hárfagra*. It is worthy to note that one episode illustrated in *Haralds saga ins hárfagra* is also mentioned in *Ágrip af Nóregskonungasögum*. This similarity is not casual, since Snorri extensively relied on *Ágrip* as historical source for the compilation of *Heimskringla*.<sup>114</sup> Among the bulk of *riddarasögur*, I only included in the corpus *Pidreks saga af Bern*, because it contains one of the few examples in which a woman is depicted in a condition of drunkenness.<sup>115</sup>

A small group of evidence, four instances out of the forty-four identified for the literary material, is constituted by excerpts from poetic edda and skaldic poems – there are other three instances of poetic compositions, but since they are included in the texts of sagas (*fornaldarsögur*), they were not reported separately from their original prose context. The main issue concerning the reading of poetic texts as sources for historical and folkloristic research is the lack of mutual cultural elements between the author and the modern readers, therefore it is very challenging to grasp in full the actual meaning of the Old Norse Scandinavian poetic compositions.<sup>116</sup> For this reason, I included in the corpus of the literary sources only the poems whose understanding is not particularly cryptical and thus offered information for supporting my argumentation. The poetic production consists indeed of texts that are judged among the oldest written sources we possess, because they probably existed firstly in oral form, and only later were written down,<sup>117</sup> e.g., several skaldic poems have been compiled as praise poetry of Viking kings already in the ninth century,<sup>118</sup> therefore I include poetical compositions in this

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<sup>113</sup> Jesch, *Women in the Viking Age*, p. 5.

<sup>114</sup> Snorri Sturluson. *Heimskringla*, trans. by A. Finlay and A. Faulkes, p. xii.

<sup>115</sup> The other two instances can be found in *Volundarkvida* stanza 28 and *Ólafs Saga Tryggvasonar* 287-289.

<sup>116</sup> Torfi Tulinius referred these words to *fornaldarsögur*, however I would say that they are also true, if not in a higher degree, for poetic compositions (see Tulinius, *The Matter of the North: The Rise of Literary Fiction in thirteenth-century Iceland*, pp. 37-38).

<sup>117</sup> Clunies Ross, *A History of Old Norse Poetry and Poetics*, pp. 4-5.

<sup>118</sup> Clunies Ross, *A History of Old Norse Poetry and Poetics*, pp. 13-14.

research whose purpose is to provide a reconstruction of cultural aspects of Viking Age society. The poems I examined are *Vǫundarkviða* and *Lókasenna*, among the eddic poems, and *Málsháttakvæði* and *Haraldskvæði (Hrafnsmál)* for the skaldic poetry corpus.

The last group of literary sources comprises two excerpts from the Snorra Edda, more precisely from *Skáldskaparmál*. Despite the fact that the subject matter treated in the work is mythological, and therefore cannot provide any type of historical accounts, the text is rich of evidence concerning the sphere of religion and rituality. In approaching the study of the Snorra Edda, one must remember that it is a work composed in the thirteenth century, in a cultural context dominated by Christianity, therefore it is not known how much this has affected the way of describing rituals and traditional customs that Snorri attributes to the pagan religion. This problem of reliability of the source in question is in a certain manner eluded by the approach I adopted to analyse the text. The purpose of my examination did not regard the investigation of religious elements in the Viking pagan beliefs, but more simply to detect the occurrence of female characters in the text and see how they were depicted while interacting with alcoholic beverages.

### **3.2. An Attempt to Experimental Archaeology: A Different Methodological Approach**

There are indeed some essential steps in beer brewing that must always be executed in order to make beer. Hence, I would say that key procedures such as malting, mashing, boiling<sup>119</sup> and fermenting would have occurred in the Viking Age as well as they are performed in modern brewing, of course with different techniques depending on the technology available. In my opinion, a link between the Viking ale and the modern beer we drink is represented by the Norwegian traditional farmhouse ale, *gårdsøl*,<sup>120</sup> which is still brewed in some parts of Norway in accordance with traditional methods: use of juniper branches and *kveik* yeast.<sup>121</sup> The procedures used for the production of *gårdsøl* can somehow offer an image of how beer may have been made in the Viking Age. A complete argumentation in favour of this statement is provided in the dedicated section. A further consideration drew from the Norwegian

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<sup>119</sup> Boiling is not strictly necessary, there are in fact beers that are not boiled, i.e., raw beer (*råøl*), see Garshol, Lars M., *Gårdsøl: Det Norske Ølet*, pp. 92-96. However, the boiling phase is preferable if one wishes to make a more stable beer from a preservative point of view.

<sup>120</sup> Garshol, Lars M., *Gårdsøl: Det Norske Ølet*, (Oslo: Cappelen Damm, 2016).

<sup>121</sup> A yeast strain originally from Norway.

homebrewing environment, i.e., the practice of brewing *spissøl*, the second batch of ale/beer brewed reusing the grain employed in the first main brew.<sup>122</sup> Because of its lower alcoholic content, as the reuse of grains in a second mash produces less fermentable sugars, and therefore less alcohol, *spissøl* tends to spoil quicker than ordinary beer.

As an additional element for supporting my arguments, I included at a methodological level an attempt of experimental archaeology which consisted in brewing a *gårdsøl*, or as I would say a “modern” version of a Viking ale. I describe the result as “modern” because, as I declared at the beginning of this chapter, I did not have the possibility to replicate exactly how the Vikings brewed, and use the same tools or methods I hypothesised, due to both practical reasons and the sanitary emergency linked to the Covid situation. The beer was brewed in the facilities of the student association Kristianiastudentenes Haandbryggeriet, at Chateau Neuf, Oslo. For making my *gårdsøl*, I brewed with an automatic electrical kettle, Speidel Braumeister 20L,<sup>123</sup> used processed malt with a higher protein content compared to what it was produced before modern times, and I kept the temperature steady for all the time the wort fermented by using a turned off fridge. Moreover, in addition to the juniper decoction, I added bittering hops at the beginning of the boil to balance the sweetness of the wort. The recipe I followed is based on Hans Henrik Hvoslef’s “Vossaøl with kveik” recipe,<sup>124</sup> to which I made some changes.

#### Ingredients for 23 litres batch:

- 3,3 kg pilsen malt (50% of the grain bill)
- 3,3 kg pale malt (50%)
- 35 g Saaz hop
- ½ bag of fresh and green juniper branches (without berries)
- 1 pkg Lallemand (LalBrew) Voss Kveik
- 23 litres of juniper decoction + 5 litres warm water<sup>125</sup> added at the end of the mash

#### Brewing procedure:

The first step consisted in the preparation of the juniper decoction (figure 2) by boiling the juniper branches in 25 litres of water for about an hour. After that, I removed the juniper

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<sup>122</sup> Definition from “Store Norske Leksikon” [<https://snl.no/spiss%C3%B8l>] accessed 13.11.2021.

<sup>123</sup> Dimension of the machine: D: 40 cm, H: 60 cm, but the vessel itself without the legs and the controllers: D: 40 cm, H: 50 cm.

<sup>124</sup> Recipe provided by Bryggselv [shop: [https://docs.google.com/document/d/15wkd\\_5G\\_x3-a8a0-GcWRO3Duoci317nCU5MLcNn7XL8/edit](https://docs.google.com/document/d/15wkd_5G_x3-a8a0-GcWRO3Duoci317nCU5MLcNn7XL8/edit)] accessed 30.09.2021.

<sup>125</sup> Preferably at the same temperature as the mash.

branches by filtering the decoction with a strainer,<sup>126</sup> however the juniper can be retained for all the duration of the brewing process. After having cooled down the decoction to the mash temperature of 68° C (figure 3), I added to the kettle the malt previously grounded. The malt was put inside the mashing tun. In modern brewing procedures, during the mash the malt is generally kept separated from the liquid with a fabric bag or metal tun with filters (according to the technique used), so it is easier, at the end of the mash, to remove the malt. I mashed for an hour and maintained the temperature steady at 68° C. After mashing completed (figure 4), I lifted the mashing tun, let the decoction drain from the malt and later sparged<sup>127</sup> with some warm water.<sup>128</sup> I then removed the malt from the kettle and warmed up the wort to boil temperature (100° C). When I reached the required temperature (figure 5), I added the Saaz hop (35 g), and cooked for two hours. After the two hours have passed, I started to cool down to the temperature of 37° C (figure 6), then I transferred the wort inside the fermenter, a plastic bucket, pitched the yeast by sprinkling it on the surface of the liquid, and eventually closed the bucket with a lid to keep the bucket sealed and protected by external agents that could have infected and damaged the beer. The Original Gravity (OG)<sup>129</sup> obtain was a lot higher than expected, 1.083 rather than 1.060 planned in the recipe, resulting in higher concentration of juniper decoction and fermentable sugars. This outcome depends on the fact that I did not add much water while sparging and boiling, therefore I got a total of 14 litres of liquid instead the 23 litres



Figure 2. Preparation of the juniper decoction with boiled water and juniper branches.



Figure 3. Juniper decoction already cooled down at mash temperature before malt addition.

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<sup>126</sup> This step was necessary because the machine I used for brewing is provided by an automatic pump that could have been damaged by the juniper sediments.

<sup>127</sup> Sparging means “to sprinkle” and according to Mosher “sparging is the rinsing of the grain bed to extract as much as of the sugar from the grain as possible without extracting astringent tannins from the grain husks (Mosher, *How to Brew*, p. 298).

<sup>128</sup> At the same temperature as the mash, 68° C.

<sup>129</sup> The Original Gravity measures the density of the wort before it is fermented. It depends on the amount of fermentable sugar contained in the unfermented wort.

expected. I left the beer in the bucket for eleven days before bottling, even though just seven days were sufficient to have a complete fermentation, since it was particularly vigorous the first two/three days. The fermentation went pretty well resulting in a Final Gravity (FG)<sup>130</sup> of 1.016. The final product was a beer of around 9.0% ABV<sup>131</sup>.



Figure 4. Grains in the mashing tun after mashing completed.



Figure 5. Beginning of the boil before hops addition.



Figure 6. Cooling down the wort to pitching yeast temperature of around 37° C.



Figure 7. The result, after around a month from the brew day, is a beer whose colour is dark gold/orange, with a quite strong taste of juniper, however balanced by the sweetness of the malt.

<sup>130</sup> The Final Gravity is the specific gravity measured at the completion of fermentation and represents the amount of unfermentable sugars remaining in the beer, see [<https://www.northernbrewer.com/blogs/beer-recipes-ingredients/final-gravity>] accessed 21.10.2021.

<sup>131</sup> ABV= alcohol by Volume. The amount of alcohol (ethanol) contained in a given volume of an alcoholic beverage. The amount of alcohol measured with OG and FG gave 8.9% ABV, but since I carbonated the beer with prime sugar, the alcohol content increased slightly.

It is reasonable to suppose that an ale brewed in the Viking Age was not carbonated, i.e., it did not contain carbon dioxide, which simply means absence of foam. On the contrary, it may have been flat. I intentionally decided to carbonate the beer to make it more palatable for our modern tastes, thus I prime conditioned the beer, which means to carbonate the beer with a solution of a sugar-containing substance<sup>132</sup> mixed with boiled water. I used 72 g of white table sugar – honey was also considered, but it would have added some after-flavour, while white sugar is neutral – and I reached a carbonation of 2 volumes of CO<sub>2</sub> per gram of sugar. After two weeks of storage at room temperature, for the second carbonation through prime conditioning, I put the beer in cold. After almost a month, the beer was ready to be drunk.

### 3.3. Methods Employed for the Investigation of the Archaeological Sources

The criteria employed to select the sources have been based on geographical reasons, region of Trøndelag – however the city of Trondheim has been excluded from the survey, and time period, only the objects dating to the late Iron Age or the Viking Age. The archaeological investigation has been limited to the sole region of Trøndelag, because of the accessibility to archaeological surveys about fire-cracked stones conducted by the archaeologist Geir Grønnesby.<sup>133</sup> The city of Trondheim was excluded since it is a particular rich and stratified archaeological settlement, whose investigation would have been too broad to deal with in this place. For this motivation, I limited the survey to the rural areas. Furthermore, several studies on cultural layers are available for the region, as well as for climate and crop yields.<sup>134</sup> Besides, Trøndelag is one of the few districts in Norway where the Norwegian traditional farmhouse ale, *gårdsøl*, has survived.<sup>135</sup> I would argue that the archaeological assemblages discovered and recorded so far

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<sup>132</sup> White sugar, brown sugar, beet sugar, molasses, honey, corn sugar, maple syrup for instance (Palmer, *How to Brew*, p. 155). With the introduction of priming sugar, the brewer starts a second fermentation in the bottle which then produces carbon dioxide. The process lasts around two weeks, after that the beer is ready to be drunk.

<sup>133</sup> Grønnesby, Geir, Heen-Pettersen, Aina Margarethe, “Gården i yngre jernalder - et spørsmål om erkjennelse? Belyst ved utgravningen av et yngre jernalders gårdstun på Ranheim”, *Viking* 79, (2015), 169-188; Grønnesby, Geir, “Hot Rocks! Beer brewing on Viking and Medieval Age farms in Trøndelag”, in F. Iversen, H. Petersson (eds.), *The Agrarian Life of the North 2000 BC – AD 1000*, (Kristiansand: Portal, 2017), 133-150.

<sup>134</sup> Grønnesby, Geir, Heen-Pettersen, Aina Margarethe, “Gården i yngre jernalder - et spørsmål om erkjennelse? Belyst ved utgravningen av et yngre jernalders gårdstun på Ranheim”, *Viking* 79, (2015), 169-188; Grønnesby, Geir, “Hot Rocks! Beer brewing on Viking and Medieval Age farms in Trøndelag”, in F. Iversen, H. Petersson (eds.), *The Agrarian Life of the North 2000 BC – AD 1000*, (Kristiansand: Portal, 2017), 133-150; Anderson Stamnes, Arne, “Effect of Temperature Change on Iron Age Cereal Production and Settlement Patterns in Mid-Norway”, in F. Iversen, H. Petersson (eds.), *The Agrarian Life of the North 2000 BC – AD 1000*, (Kristiansand: Portal, 2017), 27-39.

<sup>135</sup> In Trøndelag the Norwegian farmhouse ale is still brewed in Stjørdal and Oppdal, while other locations are Kaupanger, Voss and Hornindal in Vestland, Morgendal in Østland, and Stranda in Møre og Romsdal. A similar tradition also survives in Nord-Norge (see Garshol, *Gårdsøl: Det Norske Ølet*).

with archaeological excavations do not represent the totality of the material asset that potentially were extant in the Viking Age. The majority of objects analysed were found in burial contexts, therefore the grave's location might not correspond to the settlement's site or the facilities where the beer may have been produced.

The preliminary stage before the compilation of the corpus of archaeological material was to distinguish which objects or tools are essential for brewing beer, and consequently which would also have been fundamental for brewing in the Viking Age. Based on my personal experience as brewer I recognised a series of items. For the application of this methodological approach, which consists in identifying objects potentially used for brewing, I drew inspiration from the argumentation offered by Michael Enright when analysing the grave goods of a female burial discovered in Denmark, which dates around 100 AD. Enright argues that the presence of beakers, drinking horns, a ladle and a strainer<sup>136</sup> as grave goods, may support the statement that women had a role in serving liquors, and thus define social hierarchy.<sup>137</sup>

One of the indispensable elements for brewing beer regards the production of cereals, the base ingredient of beer. As explained in the previous chapter, barley is in general the type of grain that is used more frequently in modern brewing, nevertheless, also oats, rye, wheat, or other kinds of cereals can be employed depending on regional production. The grain crops must be collected, therefore I identified scythes and sickles among the essential tools for a preliminary stage of brewing. Sickles and scythes are common grave goods for the Viking Age, and they can be an important source of information regarding the identification of the areas that were cultivated with cereals.

The second component is the vessel where the beer was “cooked”, which could have been of different shapes, dimensions, and materials. For this survey I consulted pots, kettles, and cauldrons, as for the size, and metal alloy objects and soapstone artifacts, for the material they are made off. A ladle or another kind of kitchen tool is required in case the brewer would necessitate to stir or taste the wort, however, I focused my survey only on ladles, because they are multifunctional and could have been used also to serve the final product of the brew.<sup>138</sup> Another kitchen tool that could have been employed is a strainer, which might have been utilised to filter the liquid part, the wort, from the solid ingredients, the grains, the juniper

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<sup>136</sup> It has also been suggested that juniper branches or twigs were used as strainers to filter mash (Unger, *Beer in the Middle Ages and the Renaissance*, p. 32).

<sup>137</sup> Enright, *Lady with a Mead Cup*, p. 100-101.

<sup>138</sup> Enright, *Lady with a Mead Cup*, p. 100-101.



branches, and other plants used as beer additives. It is not certain whether this passage was done during the brewing process, or when serving the drink, as suggested by Iain Gatley.<sup>139</sup> Buckets have also been examined as auxiliary items. After mashing and cooking, the wort needs to be transferred in a different container to ferment and produce alcohol, while after fermentation it should be drunk or stored. The archaeological material I investigated did not provide any kind of testimony that could suggest the use of special vessels for fermentation and consequently storage of the beer. This lack of archaeological evidence may also be due to the perishable nature of the vessels' material, possibly wood. I recorded only one ambiguous example of fragments that can be associated with a wooden barrel (T1182).

The collection of the archaeological evidence has been carried out by consulting the digital portal UNIMUS. The artefacts I deemed essential for beer brewing in the Viking Age are scythe (*ljå*), sickle (*sigd*), cauldron/kettle (*kjele*), pot (*gryte*), ladle (*øse*), strainer (*sil*), bucket (*spann*) and barrel (*fat*).<sup>140</sup> In addition to these objects, I consulted also trough (*trau*), with the intention to find big wooden tuns that could have been used to brew, and drinking horn (*drikkehorn*), because of its important ritual role within Viking Age society, thus it can be reconducted to certain kind of ceremonial activity. The material has then been then organised in tables according to the category of "key word", "gender", "shelf mark", "object", "material", "dating", "region", "municipality", "farm", "state of conservation" and "context". As far as for the dating concerns, I relied on the information included in the UNIMUS database, therefore most of the artefacts have a certain dating, however for some objects the catalogue does not provide specific information, so the dating was done by analysing the rest of the grave goods that in many cases accompanied the objects under consideration. In fact, artifacts such as swords or brooches, whose shape or manufacture are diagnostic features, can offer data for a more secure dating. In the table of the archaeological material, I judged appropriate to indicate this uncertainty with a question mark "(?)", nevertheless, at the act of the analysis, the objects with the uncertain dating have been included and counted as certain.

Moreover, since the theoretical premises of this thesis are circumscribed to gender theory and focus on the role of women in Viking Age society, I recorded, when the information were available, the gender of the grave's owner whose burial preserved the artefacts under examination. For some of the objects it was impossible to define which gender they were

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<sup>139</sup> Gatley, *Drink. A Cultural History of Alcohol*, p. 63.

<sup>140</sup> The words listed in the catalogue are in Norwegian, so the Norwegian words that I actually looked for are reported in brackets.

correlated to, therefore they are considered “indeterminate”, while the attribution of several other items to a male or female gender is uncertain. Under these circumstances, it has been indispensable to archaeologically gender these objects with the examination of the other grave goods found in association. To determine whether a grave belonged to a man or a woman, I examined the objects whose presence is considered diagnostic: a male burial is generally recognised by the occurrence of different kinds of weapons and blades – swords, axes, and spearheads – while female burials are identified by jewellery, e.g., pairs of oval brooches, strings of beads, and implements or tools concerning the activity of weaving – wool combs, spindle whorls, and loom weights to name a few.<sup>141</sup> These objects have therefore been marked in the table with the supposed gender in addition to a question mark, as I did for the uncertain dating. In the analysis I regarded their identification as belonging to a male or female burial as certain.

Despite having decided to follow a more traditional identification of the burial’s sex based on the examination of the grave assemblages, I am aware of the more recent archaeological tendencies that question this methodological approach. In fact, the gendering of burials defined by the occurrence of specific objects, identified as male or female according to a strictly binary interpretation of the society, has been problematised in the last years.<sup>142</sup> Thanks to the theoretical support provided by new researches in the field of gender studies, discussed in the chapter about the theoretical framework, Old Norse scholars have attempted to argue in favour of a more gender-fluid and less rigid reading of Viking society in the distinction of what is masculine and what is feminine.<sup>143</sup> This, consequently, is also reflected in the interpretation of the archaeological material.<sup>144</sup>

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<sup>141</sup> Jesch, *Women in the Viking Age*, pp. 14-22.

<sup>142</sup> Arnold, Bettina, Wicker, Nancy L. (eds.), *Gender and the Archaeology of Death*, (Walnut Creek: Altamira Press, 2001); Gilchrist, Roberta, *Gender and Archaeology: Contesting the Past*, (London: Routledge, 1999); Moen, Marianne, *Challenging Gender: A reconsideration of gender in the Viking Age using the mortuary landscape*, PhD Thesis, (2019).

<sup>143</sup> To name some works, but the list could be longer: Jefford Franks, Amy, “Valföðr, vödur, and valkyrjur: Óðinn as a queer deity mediating the warrior halls of Viking Age Scandinavia”, in *Scandia: Journal of Medieval Norse studies* 2, (2019), 28-65; Evans, Gareth L., *Men and Masculinities in the sagas of Icelanders*, (Oxford: Oxford University Press, 2019); Jóhanna Katrín Friðriksdóttir, “Gender”, in Ármann Jakobsson, Sverrir Jakobsson (eds.), *The Routledge Research Companion to the Medieval Icelandic Sagas*, (London: Routledge, 2017), 226-239; Clover, Carol J., “Regardless of Sex: Men, Women, and Power in Early Northern Europe”, in *Speculum* 68 (2), (1993), 363-387.

<sup>144</sup> Moilanen, U., Kirkinen, Tuija, S., N., Rohrlach, A., Krause, J., Onkamo, P., & Salmela, E., “A Woman with a Sword? – Weapon Grave at Suontaka Vesitornimäki”, in *European Journal of Archaeology*, (Cambridge University Press, 2021), 1-19; Milek, Karen, “The Roles of Pit Houses and Gendered Spaces on Viking-Age Farmsteads in Iceland”, in *Medieval Archaeology* 56 (1), (2012), 85-130; Gardela, Leszek, “Warrior-women in Viking Age Scandinavia? A Preliminary Archaeological Study”, in *Analecta Archaeologica Ressoiviensia* 8, (2013), 273-339.

I surveyed the archaeological finds to determine in which municipalities each category of objects was found, thereafter I counted how many finds I recorded for each category, defining the amount counted for each municipality and then I determined the overall amount. The same method has been employed for surveying the gendering, therefore I recorded the gender attributed to each category of object and combined these data with the information of the municipality and the amount of finds for each type of object. Thereafter, I confronted the data of “municipality”, “object” and “gender” and I obtained a list in which each municipality displays the categories of objects discovered in its territory. For each type of object, I recorded the amount of finds per municipality and the attributed gender. I then compared the data acquired for each municipality with the data provided by Geir Grønnesby regarding the municipalities in which fire-cracked stones have been found.<sup>145</sup> The combination of these data allowed me to identify five locations in which the archaeological surveys have shown the occurrence of both brewing stones and kitchen equipment that might have been used for brewing. Nevertheless, to obtain these data, material from different farms, however belonging to the same municipality, have been combined as a single data for that specific municipality. The comparative analysis of the archaeological data provides the foundation for my claim that ale/beer was not only brewed in big batches, and mainly served for ceremonial purposes, but also brewed within the household in smaller batches, and therefore consumed more frequently.

### 3.4. The Methodology for Approaching the Runic Material

As explained at the beginning of the chapter, the runological material has been inquired as a source for the investigation of the cultural and symbolic implications that the drink ale/beer may have had in the Viking Age. It is acknowledged that beer was used as ritual drink in several ritual celebrations,<sup>146</sup> the so-called “ale-rituals”,<sup>147</sup> or as juridical tools to swear oaths,<sup>148</sup> and it has also been suggested that *vǫlva*, the prophetess from pagan times who, with her supernatural “powers”, was able to foresee the future after the consumption of alcoholic/intoxicating beverages like ale.<sup>149</sup> A testimony of the ritual value ale may have had is

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<sup>145</sup> Grønnesby, Geir, “Hot Rocks! Beer brewing on Viking and Medieval Age farms in Trøndelag”, in F. Iversen, H. Petersson (eds.), *The Agrarian Life of the North 2000 BC – AD 1000*, (Kristiansand: Portal, 2017), 133-150.

<sup>146</sup> Steinsland, *Norrøn religion*, p. 277; Garshol, *Gårdsøl: Det Norske Ølet*, p. 78; Brunstad, *Norsk ølhistorie: frå Odins skål til i dag*, pp. 35-36.

<sup>147</sup> Kjesrud, “The Meaning of Ale”, pp. 160-161.

<sup>148</sup> Enright, *Lady with a Mead Cup*, p. 81; Hauge, *Alkohol i Norsk Historie*, p. 13.

<sup>149</sup> Brunstad, *Norsk ølhistorie: frå Odins skål til i dag*, p. 38.

the record of Old Norse words composed by the term *ǫl* (ale), to which is juxtaposed another term referring to a change of state (rites of passage), e.g., *barnsǫl*, *frelsisǫl*,<sup>150</sup> *festarǫl*, *ǫlrúnar*<sup>151</sup>, *fagnaðarǫl* (welcoming ale),<sup>152</sup> as well as modern Norwegian *gravøl* (in case of funeral), *arveøl* (when inheriting), *øl til bryllup* (beer brewed for wedding parties), and modern correspondence of *barnsøl* and *festarøl*.<sup>153</sup>

The corpus of the runological material has been researched in the online database RuneS-DB.<sup>154</sup> The runic inscriptions have been selected according to: geographical location, Norway, their content, **alu** inscriptions, and the type of material support they have been carved on, i.e., drinking vessels or other objects that have been correlated to the activity of beer brewing or ale serving. Thanks to the use of the filters “Findspot” for the region, “Class and type of object”, for the type of material, and “**alu**” in the “filter entries”, and after having scrutinised all the entries provided, the outcome of this examination is a total of eighteen runic inscriptions that fulfil the three specified criteria. The material collected is heterogeneous and covers a particularly wide timeframe: the oldest instances date to the second/third century AD, while the youngest dates to the late Middle Ages (circa 1100-1500).

A quick comment must be provided about the geographical delimitation of the survey to only Norway. There are two motivations behind this choice. Firstly, because the inclusion of also runic material from Denmark and Sweden would have produced a corpus too rich to be studied in this dissertation, as well as the data produced may have been incoherent for a study about Norway. And as for consistency reason, the second motivation is linked to the first one, since the archaeological sources have also been circumscribed to Norway, however limited to the sole region of Trøndelag. The runological material thus examined is constituted by **alu** inscriptions, i.e., runic inscriptions containing **alu**, and runic inscriptions found on objects that might have been potentially used to brew and serve ale/beer. Moreover, the two categories provide a clear separation in terms of time and “alphabet” (*futhark*) used. The six **alu** inscriptions are dated to the Iron Age or Migration Period, the youngest being the Setre comb from the second half of sixth/beginning of seventh century. The **alu** inscriptions are all carved

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<sup>150</sup> Kjesrud, “The Meaning of Ale”, p. 160.

<sup>151</sup> Both terms outline to some extent a change of condition: *festarǫl* appears in the circumstances of a wedding toast, while *ǫlrúnar* refers to a drink that gives knowledge, therefore the passage is from the condition of not knowing to a new state of awareness. For further discussion see “Analysis”.

<sup>152</sup> Jochens, *Women in Old Norse Society*, p. 106.

<sup>153</sup> Garshol, *Gårdsøl: Det Norske Ølet*, p. 79.

<sup>154</sup> The RuneS-project, “Runic writing in the Germanic languages”, by the Union of the German Academies of Sciences based at the Academy of Sciences in Göttingen [<https://www.runesdb.eu/project/>] accessed 12.11.2021.

in older *futhark*. The remaining twelve inscriptions are from the Viking Age or early Middle Ages and are written in younger *futhark*. All the eighteen instances are gathered in a table displaying nine categories of information: key word, gender, shelf mark, name if the objects, type of material – e.g., runestone, drinking horn, ladle – the context where the inscription was found, the region and the municipality. However, the core features are key word and gender. The key words identified are associated to “ale”, “alu” in six instances, from the early Iron Age/Migration period, and one earlier, from the late Viking Age/beginning of Middle Ages, “ǫl”. The category “gender” was used to highlight the occurrence of female correlation with the inscriptions.

## CHAPTER FOUR: ANALYSIS: BREWING ALE IN THE VIKING AGE

Before starting to discuss the brewing techniques that may have been used in the Viking Age, I would like to draw attention to four essential premises on which my argument is based. The first premise concerns the harvesting of crops, which was carried out once a year, at the end of summer / beginning of autumn. This means that grain production no longer occurred for the rest of the year, until the following harvest. Secondly, drinking feasts and ritual celebrations, such as annual/seasonal rituals (cyclical, the sources mention *blót* three times in a year – autumn, mid-winter and summer), crisis rituals, and rites of passage (birth, name giving, puberty, marriage, funeral and inheritance)<sup>155</sup> were performed throughout the year. Previously in the text, I discussed the ritual value attributed to ale in pagan Scandinavian society, the bond between ale and these rituals, especially the rites of passage, is so close that they are also called “ale-rituals”.<sup>156</sup> If therefore all private events,<sup>157</sup> as well as public festivities, were toasted with an alcoholic drink, presumably ale for most of the circumstances, it was indispensable to always have access to it.

As pinpointed by Jochens, in Norway there was a more elaborated drinking culture than what had developed in Iceland.<sup>158</sup> The Norwegian drinking patterns described in the sagas highlight a culture characterised by extensive drinking, which often resulted in drunkenness.<sup>159</sup> Given these premises, it is reasonable to presume that Norway was provided with a good supply of beer, however this statement should be verified with a specialised study on crop yielding regarding Viking Age Norway.<sup>160</sup> A question draws from these premises: since ale was required for ritual consumption along all the year, was beer only produced three or four times a year, as suggested by Garshol,<sup>161</sup> and then stored, or was it brewed more often and drunk fresh? With the aim of answering to this question, I shall discuss the hypothesis of a differentiation between large and small batches of beer, with the support of archaeological evidence.

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<sup>155</sup> Steinsland, *Norrøn religion*, pp. 264-265.

<sup>156</sup> Kjesrud, “The Meaning of Ale”, pp. 160-161.

<sup>157</sup> Jochens, *Women in Old Norse Society*, p. 106.

<sup>158</sup> Jochens, *Women in Old Norse Society*, p. 106

<sup>159</sup> Jochens, *Women in Old Norse Society*, p. 107.

<sup>160</sup> A survey of this kind has been conducted by Arne Anderson Stamnes, however regarding Iron Age central. See Anderson Stamnes, Arne, “Effect of Temperature Change on Iron Age Cereal Production and Settlement Patterns in Mid-Norway”, in F. Iversen, H. Petersson (eds.), *The Agrarian Life of the North 2000 BC – AD 1000*, (Kristiansand: Portal, 2017), 27-39.

<sup>161</sup> Garshol, *Gårdsøl: Det Norske Ølet*, p. 82.

A further consideration must be given to fermentation. Although fermentation is the most important process in beer brewing,<sup>162</sup> and also the most delicate one, academic research investigating the historical reconstruction of beer in the Viking Age or Middle Ages have the tendency to not pay particular attention to this fundamental step, or to its main actor, the yeast.<sup>163</sup> In fact, this subject matter is often dismissed by simply explaining that beer was probably left to ferment with wild yeasts, resulting from a spontaneous fermentation,<sup>164</sup> however there are a series of technical problems related to fermentation that are rarely contemplated. The first factor to evaluate is to establish whether the fermentation really took place only spontaneously, or if the brewer intentionally added the yeast. As mention in Chapter One, a second important feature is represented by the temperature at which the yeast ferments, because this factor can have implications on production methods, resulting in two typologies of yeast: ale yeasts, which produces a top-fermented beer, and lager yeast, which demands a lower fermentation temperature and work at the bottom of the wort.

As aforementioned, there exists a special type of ale yeast, *kveik*, which ferments at an even higher temperature than regular ale yeast (ideally between 35-40 °C). Its fermentation is thus particularly vigorous and lasts only three to five days. In addition, *kveik* can be dried for further reuse without dying.<sup>165</sup> Since *kveik* is a yeast strain originating from Norway, it can be hypothesized that in the Viking Age there might have been a yeast with similar characteristics. *Kveik* yeast, however, is not a wild yeast,<sup>166</sup> therefore it must be added in the wort in order to start fermenting.<sup>167</sup> I would argue that the type of fermentation occurred in a Viking Age beer should have been of ale-type, because it requires less control in temperature management during fermentation, whereas lager beers need to ferment at a low, more stable temperature and for a longer period of time.

The ale-type fermentation necessitates a temperature of at least 15 °C in the facility or location where the beer is left to ferment, although the optimal range is 18-22 °C. This means that during

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<sup>162</sup> Technically, a cereal-based beverage is called beer only after fermentation. Before fermentation it is defined as wort.

<sup>163</sup> Grønnesby, “Hot Rocks! Beer brewing on Viking and Medieval Age farms in Trøndelag” or Viklund, “Beer brewing in medieval Sweden: archaeobotanical and documentary evidence”, to just name a few.

<sup>164</sup> Sparrow, *Wild Brews*, pp. 29-30.

<sup>165</sup> “What makes kveik a super-yeast” [<https://www.garshol.priv.no/blog/423.html>] accessed 16.11.2021.

<sup>166</sup> *Kveik* is a domesticated beer yeast strain Preiss, R. et alii, “Traditional Norwegian Kveik Are a Genetically Distinct Group of Domesticated *Saccharomyces cerevisiae* Brewing Yeasts”, *frontiers in Microbiology*, (2018) [<https://doi.org/10.3389/fmicb.2018.02137>] accessed 16.11.2021.

<sup>167</sup> In the first chapter of *Hálfs saga ok Hálfsrekka* it is said that Óðinn “spat on the yeast” (mentioned as *dregg*). This episode potentially suggests that yeast was added voluntarily, and the fermentation was not the result of airborne bacteria.

the warmer season almost any kind of location was suitable to keep the fermenting beer in temperature, while in the colder season, the beer must have been stored somewhere, inside the house or in special facilities where the temperature was warm enough. In the following, I shall discuss the hypothetical procedures that was used in the Viking Age, however in the first part the argument is conducted on the basis of considerations derived from knowledge in homebrewing and the results of the experimental approach, the second part, instead, tries to confront those hypotheses with the information acquired from the archaeological sources.

## **4.1. Description of the Technical Procedures**

In Chapter One I described the brewing procedures that so far have been reconstructed by archaeologists, historians, and archaeobotanists. My attempt now is to delve into the subject matter with an eye on the techniques used to brew in the Viking Age and I shall try to argue for solutions to questions that have only been partially investigated. In the following, I shall discuss how the grains were prepared for brewing (malting), the brewing process itself debating my hypothesis of the distinction between small and big batches, and eventually whether the beer was stored after being brewed or was drunk fresh.

### **4.1.1. Malting**

Barley seeds (as well as wheat, oats, and rye) must be processed before their employment in brewing beer. What allows the beer to ferment is the sugar, however sugar is not contained naturally in the seed, it must be extracted from the starches of the seed. Therefore, grain seeds must be firstly sprouted, so they can produce the enzymes which converts the starch into sugar when mashing. Hence, the fermentable sugar is extracted through a series of chemical reactions involving the enzymes contained in the grounded seeds and warm water, at a steady temperature of about 65 °C.<sup>168</sup> To sprout the seeds it is sufficient to soak them in water, however after two or three days they should be drained to stop their growth and the production of enzymes. The enzymatic production will start again when mashing. Besides, malting is a procedure that stabilises malt for long-term storage.<sup>169</sup> The second step in this inquiry is to determine how the malting process was performed in the Viking Age. The traditional methods employed by the

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<sup>168</sup> If the temperature is too cold or too warm the extraction of the sugar does not occur correctly, so the sugars obtained that are not suitable to ferment.

<sup>169</sup> Mosher, *How to Brew*, p. 51.



Norwegian homebrewers<sup>170</sup> constitute a starting point for this investigation, although some of these techniques cannot be proved through the archaeology because of the perishability of the organic materials involved.

The simplest form of malting consists in drying the sprouted grains under the sun, while another technique requires the use of wooden trough and hot rocks. According to this method, the seeds should be put inside the trough and then dried by placing the rocks over them, creating a smoky taste.<sup>171</sup> Other procedures necessitate the use of saunas or bath houses<sup>172</sup> or pots hanging over an oven or a fireplace.<sup>173</sup> Based on archaeobotanical sources, Karin Viklund has suggested that malting and drying may have been performed in the longhouses.<sup>174</sup> Another practice called *tusse-ugn* consisted on drying on a flat stone over the hearth, as shown by archaeological finds in south-west Norway from about AD 500-600.<sup>175</sup> The analysis of the archaeological findings I collected for the region of Trøndelag did not show the occurrence of evidence that may suggest the use of saunas, as there is a lack of archaeological evidence of stone foundation of Viking Age buildings such as those studied by Graham Dineley and Meryn Dineley in Orkeney, Shetland and Stöng, in Iceland.<sup>176</sup> Nevertheless, this lack of data may result from the exclusion of the urban context of Trondheim. If we refer to Graham and Meryn Dineley hypothesis according to which structures previously interpreted as saunas were actually ale houses,<sup>177</sup> the absence of archaeological data of this kind would suggest that structures of this kind were non-existent in Viking Age Trøndelag. However, as pinpointed by Nordland referring to traditional brewing in Norway «The east and the Trøndelag area showed greater homogeneity in the use of either the special drying house as a place for drying».<sup>178</sup>

On the contrary, the occurrence of fire-cracked stones that are generally associated with the activity of heating large quantities of liquid, for both cooking and brewing, as recorded in several archaeological surveys for Trøndelag,<sup>179</sup> may indicate that malting with hot rocks was

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<sup>170</sup> Garshol, *Gårdsøl: Det Norske Ølet*.

<sup>171</sup> Garshol, *Gårdsøl: Det Norske Ølet*, pp. 40-41.

<sup>172</sup> Dineley & Dineley, "Where were the Viking Brew Houses?", p. 4.

<sup>173</sup> Garshol, *Gårdsøl: Det Norske Ølet*, pp. 40-41.

<sup>174</sup> Viklund, "Beer brewing in medieval Sweden: archaeobotanical and documentary evidence", p. 242.

<sup>175</sup> Nordland, *Brewing and Beer Traditions in Norway: The Social Anthropological Background of the Brewing Industry*, p. 26.

<sup>176</sup> Dineley & Dineley, "Where were the Viking Brew Houses?", pp. 4-5.

<sup>177</sup> Dineley & Dineley, "Where were the Viking Brew Houses?", p. 6.

<sup>178</sup> Nordland, *Brewing and Beer Traditions in Norway: The Social Anthropological Background of the Brewing Industry*, p. 24.

<sup>179</sup> Geir, Heen-Pettersen, Aina Margarethe, "Gården i yngre jernalder - et spørsmål om erkjennelse? Belyst ved utgravningen av et yngre jernalders gårdstun på Ranheim"; Grønnesby, Geir, "Hot Rocks! Beer brewing on Viking and Medieval Age farms in Trøndelag"; Grønnesby, "Bryggestein og kulturlag: spor etter gårdens opprinnelse".

a technique potentially known in the Viking Age. Although, at the same time one could argue against this hypothesis pointing out that for Trøndelag there are no recorded archaeological traces of complete tubs or vats<sup>180</sup> in which this procedure could have carried out, as well as their employment for mashing.<sup>181</sup> For the reasons discussed, I am more inclined to accept as possible malting techniques the practice of dehydrating the malt under the sun and the use of drying method inside the longhouse involving some kind of heating source – hearths, cooking pits or hot stones, however without certainty on the type of vessel used.

#### 4.1.2. Brewing

It has been argued that in the Viking Age ale was brewed with fire-cracked stones used to warm up large quantities of liquid contained inside large cauldrons of copper or bronze.<sup>182</sup> As an alternative to metal cauldrons, wooden or soapstone vessels may also have been utilised.<sup>183</sup> The use of big vessels implies that the amount of ale brewed each time was quite large, about 200-250 litres – a good example may be the Bjarkøy cauldron (C18174), the biggest imported Roman cauldron found in Norway, although it dates around 300-400 AD.<sup>184</sup> With a software for modern brewing,<sup>185</sup> I have roughly estimated that to brew 250 litres of a 4,9% ABV ale it is needed 50 kg of malt with a mash efficiency of 75%.<sup>186</sup> Due to the large amount of malt required, it has been suggested that beer was only brewed three-four times a year,<sup>187</sup> and therefore stored in specific facilities or large vats for subsequent consumption.<sup>188</sup> If we accept as certain the hypothesis that fresh ale was brewed for the mid-winter *blót*, hence around November or December, from a technical point of view, the fermentation of such large amounts of liquid may have been problematic because it would have required a steady temperature of at least 15 °C for the days of fermentation. The problem of fermentation management may be solved by assuming the existence of ale-houses, where the ale could have been kept at the

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<sup>180</sup> These artifacts were most likely made of wood, so they have hardly been preserved. Evidence of iron nails, metal fittings or fragments of wooden organic material are not strong evidence to demonstrate their occurrence.

<sup>181</sup> In accordance with the material examined in the database UNIMUS.

<sup>182</sup> Grønnesby, “Hot Rocks! Beer brewing on Viking and Medieval Age farms in Trøndelag”, pp. 144-146.

<sup>183</sup> Grønnesby, “Hot Rocks! Beer brewing on Viking and Medieval Age farms in Trøndelag”, pp. 143-144.

<sup>184</sup> Kjesrud, “The Meaning of Ale”, p. 169.

<sup>185</sup> Brewfather [<https://brewfather.app/>].

<sup>186</sup> Mash efficiency is “the extent to which the brewer is able to pull the sugars out of the malted grain and into the water. A high percentage of sugar recovery (75-90%) is called 'high mash efficiency'. A low percentage (60-75%) is called 'low mash efficiency'.” [<https://brewhaequipment.com/blogs/how-to-brew-beer/9504551-how-to-improve-mash-efficiency-or-how-to-save-money-and-have-consistent-tasting-beer>] accessed 15.11.2021. In simple words how much fermentable sugars can be potentially extracted by the grains during the mash.

<sup>187</sup> Garshol, *Gårdsøl: Det Norske Ølet*, p. 82.

<sup>188</sup> Dineley, G., Dineley, M., “Where were the Viking Brew Houses?”, p. 2.

correct temperature, presumably inside one or several closed vessels to prevent contamination from microorganisms. Although the existence of ale-houses is to some extent supported by the runic inscription found on the Skadberg stone (N 247) – which mentions a *ǫlhus* where the participants of Skarði’s funeral gathered to drink his funeral toast – as explained above, no facilities have been identified in Trøndelag that display the same structural characteristics as those argued as brew houses by Merryn and Graham Dineley.

**[olh]usmin ræisto stæin þana æff[t]ir skarþa:[æ̃n]:þæir tr[uko] [-]rfi hans**

*Ǫlhúsmenn reistu stein þenna eptir Skarða, en þeir drukku erfi hans.*

“Participants in the funeral wake raised this stone in memory of Skarði when they drank to his memory.”<sup>189</sup>

A different interpretation of **[olh]usmin** as “the people in the ale-house” is suggested by Karoline Kjesrud.<sup>190</sup> In this reading the emphasis is put on *ǫlhus* as a place of ritual gatherings, however at the same time this may imply the existence of a specific facility in which ale may have been brewed and stored.

In the light of the considerations made in regard to ale-houses, it is reasonable to state that in Trøndelag, the places where it is assumed that beer was produced can solely be identified by the presence of brewing stones. To achieve a higher degree of trustworthiness, it is necessary to combine the data regarding brewing stones with the presence or absence of equipment, as well as archaeobotanical remains, which can be associated with the activity of brewing. This approach is discussed in Chapter 4.2 in which I shall analyse the archaeological evidence provided for Trøndelag.

I would claim that a production of ale in small batches, presumably in the range of ten to thirty litres, in farmsteads and longhouses might have occurred in the Viking Age as complementary with the larger brews.<sup>191</sup> The activity of beer brewing within the household may have been intended for a daily consumption and the outcome product was probably something more similar to a *spissøl* rather than a common ale. From a technical point of view, the production of smaller quantities of ale does not demand large cauldrons, it can in fact be performed with

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<sup>189</sup> Spurkland, *Norwegian Runes and Runic Inscriptions*, p. 137.

<sup>190</sup> Kjesrud, “The Meaning of Ale”, pp. 167-168.

<sup>191</sup> Graham and Merryn Dineley have also suggested the possibility of brewing in smaller Viking farmsteads, however they do not mention the amount of ale produced (Dineley, G., Dineley, M., “Where were the Viking Brew Houses?”, p. 5).

common kettles with a capacity of twenty-thirty litres, if we suppose that a batch of this kind was the normal amount brewed at “home”.

Besides, vessels with these dimensions can be heated either with brewing stones or directly on the hearth, thus favouring my hypothesis that kitchen equipment normally used for food processing could also have been employed to brew. As I clarified in the methodology, I researched for both pots and kettles, in metal or soapstone, in the database UNIMUS. The result of this examination is a total of eleven cooking vessels, registered in the database under the categories of *kar/kjele*, *kjele* and *gryte*, which date to the late Iron/Viking Age (two of them are maybe medieval). Most of the material is preserved in fragments, therefore it is impossible to determine the actual dimension of the kettles. However, archaeologists have been able to define the diameter of three of them: the iron pot T20362 has a diameter of 22 cm, the bronze cauldron T4623 measures 38-40 cm in diameter, while the soapstone pot T13527 (figure 8) has a volume of about 9 litres, being the diameter 28 cm and the height 15,9 cm. A comparison between these vessels and modern kettles used in homebrewing shows that only the bronze cauldron (T4623), with a diameter of 38-40 cm, was large enough to contain an estimated volume of 25-30 litres, while T20362 and T13527 are too small.<sup>192</sup> To some extent the soapstone pot (T13527) is a potential example in case we suppose a batch of circa 10 litres,<sup>193</sup> however I would say that its use was more likely linked to food processing rather than brewing, considering that we should



Figure 8. The soapstone pot (T13527) from Berstad, in Steinkjer, Trøndelag.  
Photo: Ole Bjørn Pedersen, courtesy of VM, NTNU.

<sup>192</sup> The brewing vessel I employed in my brewing experiment has the following measures: D: 40 cm, H: 60 cm (counting the legs with the integrated electronic system). A normal kettle of 35 litres not provided of an automatic heating system measures 36 cm in diameter and 36,5 cm for the internal height.

<sup>193</sup> The machine Braumeister Speidel 10L has a diameter of 30 cm and a height of 48 cm (counting the legs with the integrated electronic system).

also esteem the volume occupied by the malt, and perhaps also by the hot rocks, in case the heating was executed with brewing stones.

Unfortunately, the archaeological material available for Trøndelag does not provide many examples of metal or soapstone kettles dating to the late Iron/Viking Age. While any kind of evidence of large cauldrons is totally absent. This data may suggest that wooden vessels, of different dimensions, heated with hot stones were the most common form of equipment used for cooking and brewing. This phenomenon would also be confirmed by the numerous deposits and mounds of brewing stones, already hypothesised by Eilert Sundt in the 1860s, located in or just in the surroundings of farmsteads and historical farms.<sup>194</sup> These stones have also been used as foundations for new buildings.<sup>195</sup>

The advantages of producing smaller batches are several. For instance, the amount of malt necessary to brew 25 litres is much less compared to the circa 50 kg required for 200-250 litres of ale. For my experiment I used 6,6 kg of malt, which in theory were counted for producing about 23 litres of a circa 6,2% ABV ale. However, since my purpose was to obtain a beer higher in alcohol content, for my experiment I preferred to not add more water during boiling (I did not have more *einerlæg* left), so I ended with about 14 litres of a 9% ABV ale. With 5 kg of malt, I would have ended with 23 litres with 4.6% ABV.<sup>196</sup> Besides, since beer had a central role in Viking heathen society, and therefore it was necessary to always have it available, I would argue that in case of a shortage of ingredients, one solution may have been to produce smaller batches. Another solution was of course to buy raw materials, e.g., corn,<sup>197</sup> or the final product.<sup>198</sup> Thus, I would state that the practice of brewing smaller batches would not only be attributable to a daily need – it is common opinion that in the past drinking ale was safer than water<sup>199</sup> – but it was also a valid alternative in case of corn supplies were not sufficient to make large batches, when the beer was necessarily required for ale-rituals. Another method to produce more ale from the same grains is to mash them for a second time. The wort obtained is lower in sugar content, and therefore the derived ale has less alcohol. This technique, which

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<sup>194</sup> Grønnesby, “Hot Rocks! Beer brewing on Viking and Medieval Age farms in Trøndelag”, p. 134.

<sup>195</sup> Grønnesby, “Hot Rocks! Beer brewing on Viking and Medieval Age farms in Trøndelag”, p. 134.

<sup>196</sup> The mash efficiency is estimated at 67.8%.

<sup>197</sup> Kjesrud, “The Meaning of Ale”, p. 157.

<sup>198</sup> Jochens, *Women in Old Norse Society*, p. 106.

<sup>199</sup> Garshol, *Gårdsøl: Det Norske Ølet*, p. 81.

produces an ale called *spissøl*, is common among homebrewers and has traditional roots in Norwegian drinking history.<sup>200</sup>

A final consideration must be given to fermentation. Whether it was due to the action of wild yeasts or by pitching a yeast strain similar to *kveik*, the fermentation temperature was certainly easier to manage for smaller batches than larger batches, especially in the colder season. The wort, indeed, may have been left to ferment inside the longhouse, whose internal temperature was generally never as cold as the outside, due to the presence of a hearth and the animals.

### 4.1.3. Fermentation and Storage

As I explained previously, the type of yeast used to ferment is very important for determining the temperature required and for how long the beer should ferment. I have discussed the characteristic features of *kveik* yeast, as a very resistant yeast strain which can tolerate higher fermentation temperatures without producing off-flavours, it can be re-pitched several times as it can be dried or frozen without dying, and so stored for longer. Moreover, it ferments faster, in three or four days.<sup>201</sup> All these features make *kveik* a very special yeast. If we suppose that Viking brewers added yeast to their wort, as it is alluded in the first chapter of *Hálfs saga ok Hálfsrekka*, and we presume that the yeast in question may have had similar characteristics as *kveik*, then we can draw interesting observations. The quality of fermenting faster than usual indicates that ale was also made in less time. Since beer was not carbonated, thus it did not require a second fermentation to get carbon dioxide, it is safe to assumed that ale was ready to be served immediately after the first fermentation, hence in less than a week. According to Preiss *et ali.*<sup>202</sup> one or two days were sufficient to achieve complete fermentation. Besides, a shorter fermentation period means that keeping the temperature steady was only needed for a couple of days, resulting in a beer that may have avoided fermentation issues.

As I have often stated, beer is a delicate beverage, which can be easily subjected to contamination that can ruin its flavour and spoil it faster. It is for this reason that it has been argued that a juniper decoction, with cleansing properties derived from its resin, was used for

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<sup>200</sup> Nordland, *Brewing and Beer Traditions in Norway: The Social Anthropological Background of the Brewing Industry*, pp. 177, 184-185.

<sup>201</sup> “What makes kveik a super-yeast” [<https://www.garshol.priv.no/blog/423.html>] accessed 16.11.2021.

<sup>202</sup> Preiss, R. *et ali.*, “Traditional Norwegian Kveik Are a Genetically Distinct Group of Domesticated *Saccharomyces cerevisiae* Brewing Yeasts”, *frontiers in Microbiology*, (2018) [<https://doi.org/10.3389/fmicb.2018.02137>] accessed 16.11.2021.

either mashing and cleaning the vessels, as it is custom in Norwegian traditional ale brewing,<sup>203</sup> however this information is not proved with certainty by archaeological surveys as it is for other beer additives such as *Myrica gale* (*pors*, sweet gale, bog-myrtle).<sup>204</sup> As for *pors*, the archaeobotanical remains found in archaeological sites are generally fruitlets and sometimes leaves.<sup>205</sup> Experimental approaches within the field of the archaeology of brewing show that it is possible to brew without juniper decoction,<sup>206</sup> nevertheless, the pending question is how long the ale could keep itself fresh and good. According to the archaeological evidence analysed for this inquiry,<sup>207</sup> there are no fragments or traces of containers that may have been employed for storing ale, therefore I would argue that ale was mostly drunk fresh, and only stored for shorter periods of time.

## 4.2. Analysis of the Archaeological Material

The archaeological material examined comprises a total of 168 artefacts, which have been displayed in two tables divided by categories of artefact and gender.<sup>208</sup> Tables 1 and 2 record the data referred to 163 objects. Five of them belong to categories of artifacts, e.g., millstone

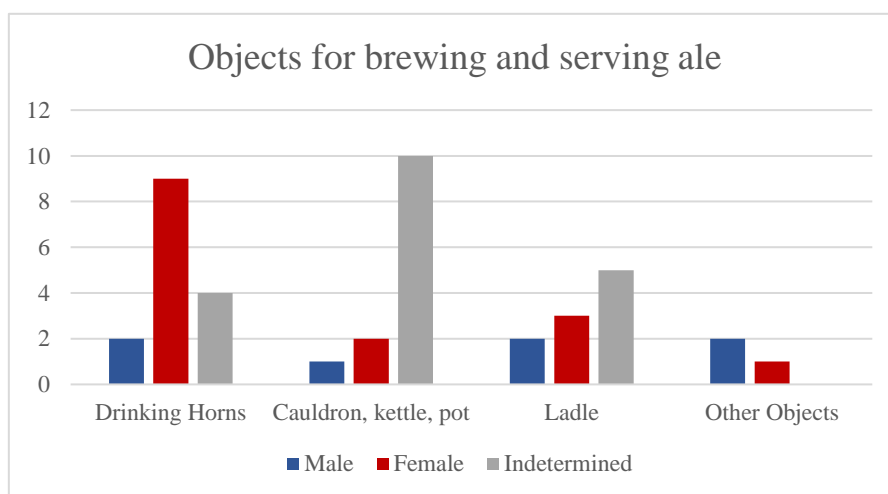


Table 1. The archaeological material used for brewing and serving ale divided by category and gender.

<sup>203</sup> Nordland, *Brewing and Beer Traditions in Norway: The Social Anthropological Background of the Brewing Industry*, p. 121; Garshol, *Gårdsøl: Det Norske Ølet*, p. 115;

<sup>204</sup> Soltvedt, “Ølkrydder i vikingtid og middelalder: pors (*Myrica gale*)”, in *Frå haug ok heiðni* 2, (2009), pp. 13-17; Viklund, “Beer brewing in medieval Sweden: archaeobotanical and documentary evidence”, p. 239; Behre, Karl-Ernst, “The History of Beer Additives in Europe – a review”, in *Vegetation History and Archaeobotany*, Vol. 8, No. 1/2 (June 1999), pp. 35-48.

<sup>205</sup> Behre, “The History of Beer Additives in Europe – a review”, p. 36.

<sup>206</sup> Dineley, Merry, “The Ancient Magic of Malt: Making Malt Sugars and Ale from Grain Using Traditional Techniques”, in *EXARC Journal 2021/2 Ancient Technology*, [https://exarc.net/issue-2021-2/at/ancient-magic-malt-making] accessed 15.11.2021.

<sup>207</sup> The examination of the material regards the solely area of Trøndelag, with the exclusion of the archaeological context of Trondheim.

<sup>208</sup> The choice of splitting the assemblage in two tables was made to obtain a better visual representation of the material.

and other more common drinking vessels, that have not been examined comprehensively as categories by themselves, however they still appear in the corpus of the archaeological material as part of the grave goods associated with the objects considered. The survey has shown that sickles are the type of assemblage, among those taken under examination, that has been found most often. As a result, 98 out of 168 are sickles, about 58% of the material inspected.

This data may also depend on the material of which the blade is made, i.e., metal, which has a higher probability of conservation than other materials. However, if confronted with another tool used in crop harvesting, i.e., scythe, the data regarding sickles becomes more significant. In fact, 25 scythes have been recorded, and none of them are associated with a female grave,

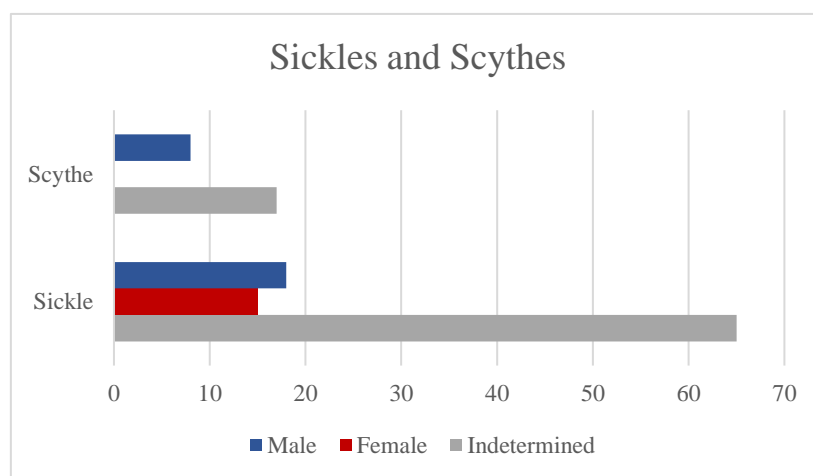


Table 2. Archaeological material used for crop harvesting divided by category and gender.

while sickles have been found in 15 female burials. As pinpointed by Marianne Moen in her PhD thesis,<sup>209</sup> agricultural implements are typical grave goods found in both male and female burials, however, this data for Trøndelag shows that scythes were mostly deposited in men's burials, whereas for women there was a preference for sickles. From this distinction it is not possible to determine whether there was a division of duties, but it may suggest that women also were participating in agricultural activities, thus contesting the traditional reading of women limited to house chores within the threshold of the household.<sup>210</sup>

The assumption that women might have had a more active role in the cultivation of fields and in corn processing cannot be proven with the archaeological sources we currently possess, therefore it is impossible to determine to which extent women were involved in these activities.

<sup>209</sup> Moen, *Challenging Gender: A reconsideration of gender in the Viking Age using the mortuary landscape*, p. 131.

<sup>210</sup> Moen, *Challenging Gender: A reconsideration of gender in the Viking Age using the mortuary landscape*, p. 230.



Nevertheless, the new interpretative perspectives in Old Norse studies opened by the current trends in Gender studies, would suggest that women were also involved in activities that have generally considered exclusively for men. As discussed above, the presence of implements used for cultivation might be an element in favour of this argument.

If we exclude the artefacts whose gender is indetermined, the archaeological data show that ladles, drinking horns and cooking vessels are more frequent in female burials than men's graves. The occurrence of cooking vessels is not significant for determining women's participation in beer brewing, in contrast, drinking horns and ladles may indicate that women had a precise role in the distribution of ale in ritual and ceremonial contexts.<sup>211</sup> The figures 9 and 10 show how ladles and drinking horns might have looked like in the late Iron Age, although these two specific examples have not been found in association with a female burial.<sup>212</sup>



Figure 9. Bronze ladle (T4621) from Steinvik, in Ørland, Trøndelag.

Photo: Ole Bjørn Pedersen, courtesy of VM, NTNU.

Figure 10. Drinking horn (T1184) from Vold, in Overhalla, Trøndelag.

Photo: Ole Bjørn Pedersen, courtesy of VM, NTNU.

A particularly interesting data emerges from the archaeological corpus, which is the total absence of large metal cauldrons in the archaeological accounts for Trøndelag.<sup>213</sup> This kind of cauldrons were quite common during the early Iron Age, and probably imported from the Roman Empire,<sup>214</sup> however they disappeared from the archaeological records starting from the Migration period. However, it should be noted that this type of cauldron was not particularly widespread in Trøndelag, when compared with other regions of Norway.<sup>215</sup> In addition, as pinpointed by Grethe Bukkemoen, during the 6<sup>th</sup> century we assist a change in cooking practices, with the disappearance of cooking pits and the appearance of techniques privileging

<sup>211</sup> Enright, *Lady with a Mead Cup*, pp. 100-101.

<sup>212</sup> Most of the archaeological material have been found in fragments, so these are two of the few examples for Trøndelag which have been preserved almost in their entirety.

<sup>213</sup> Referred to the period of the late Iron/Viking Age.

<sup>214</sup> Hauken, Åsa Dahlin, *The Westland Cauldrons in Norway*, (Stavanger: Arkeologisk museum I Stavanger, 2005).

<sup>215</sup> Hauken, *The Westland Cauldrons in Norway*, p. 90.

roasting-spits, frying-pans, soapstone-vessels, and fire-cracked stones.<sup>216</sup> The combination of these evidences would therefore suggest that in Trøndelag ale was probably brewed in wooden vessels of different sizes and using brewing stones. The employment of wooden vessels can be applied for both big and small batches, while, as I argued above, soapstone-vessels or smaller metal kettles might have been used for smaller batches.

The comparative analysis of the archaeological material with the data provided by Geir Grønnesby in his research regarding brewing stones,<sup>217</sup> allowed to identify five locations where activities related to beer brewing can be detected, and in two cases also evidences of ritual and ceremonial drinking. The sites identified are Melhus, Hitra, Ørland, Skaun and Overhalla.<sup>218</sup> All these locations have shown the occurrence of brewing stones at least in association to agricultural tools (sickles and/or scythes), however most of them displayed also brewing equipment as kettles and pots or serving tools such as drinking horns or ladles. From a methodological point of view, it might seem uncaringful to combine sources from different farms and different timeframes, however since beer brewing is strongly linked to rituality, a certain degree of temporal and spatial continuity might be assumed. Considering the limits that archaeology has in providing partial information about the objects that have been preserved over the centuries, I shall therefore illustrate all the five cases, however I will discuss thoroughly only those examples that can offer a consistent representation in terms of timeframe and space.

On Hitra the archaeological assemblage consists only in sickles and brewing stones. The rest of the material analysed, as for example cooking and drinking vessels, are generally earlier than late Iron/Viking Age. Thus, these data show that on Hitra there were both agricultural activity and production of beer, hence we can suppose that wooden vessels might have been used for brewing. The material from Hitra, however, comes from different farms. A case similar to Hitra was found in Melhus where two sickle blades from the late Iron Age, one sickle blade and four pots from the Viking Age, and cultural layers with brewing stones, still from the Viking Age, have been identified. Two soapstone pots are from the same farm (Foss Lian) where the brewing

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<sup>216</sup> Bukkemoen, "Cooking and Feasting: Change in Food Practice in the Iron Age", p. 118.

<sup>217</sup> Grønnesby, Geir, "Hot Rocks! Beer brewing on Viking and Medieval Age farms in Trøndelag", in F. Iversen, H. Petersson (eds.), *The Agrarian Life of the North 2000 BC – AD 1000*, (Kristiansand: Portal, 2017), 133-150; Grønnesby, Geir, Heen-Pettersen, Aina Margarethe, "Gården i yngre jernalder - et spørsmål om erkjennelse? Belyst ved utgravningen av et yngre jernalders gårdstun på Ranheim", *Viking* 79, (2015), 169-188.

<sup>218</sup> Fire-cracked stones were also found in Egge, Steinkjer, and discussed by Oddmund Farbregd in 1985. However, a precise dating for these brewing stones is not provided. A charcoal sample from the same cultural layer (T20846) dates back to the 6<sup>th</sup>-7<sup>th</sup> century AD, see Grønnesby, "Bryggestein og kulturlag: spor etter gårdens opprinnelse", p. 34.

stones have been found,<sup>219</sup> while the other two pots, made of iron, were discovered in the farm where also one sickle blade is from, Eid. The sickle blades dating to the late Iron Age are from Branem and Krokstad. The occurrence of agricultural equipment for both late Iron Age and Viking Age may suggest that Melhus was an area where corn was produced continually, while brewing stones indicate that ale was also brewed there. The four pots might have been used as brewing vessels to produce small batches, however their preservation state, in fragments, does not allow to measure their size and therefore determine whether they were suitable for ale brewing. The archaeological excavation at Foss Lian farm, Melhus, showed also evidences of cooking pits and charcoal residues for the settlement dated to the Viking Age, and six baking slabs (four in slate and two in soapstone) dated to the Middle Ages (the baking slabs have been detected for phase 7 and 10).<sup>220</sup> The baking slabs might be associated with malting procedures.

The Ørland area offers inconsistent data in terms of timeline and type of artefacts. For the Viking Age there have been detected only sickle blades in three farms: one in Røstad, three in Uthaug, and two in Grande. On the contrary, two sickle blades from Kråkvåg, two ladles, one cauldron and fittings of a wooden vessel from Steinvik date to the late Iron Age. Besides, brewing stones have been found in Viklem. It is challenging to combine data from different timeframe and spatial origin and obtain consistent results, however what we can deduct from the information provided by the archaeological material from Ørland is that it was an area where corn was cultivated continually, that beer was brewed with the technique of the brewing stones, and maybe small batches were made with kitchen equipment.<sup>221</sup> Moreover, the bronze ladle T4622, whose diameter is quite large (c. 20 cm), might have been employed in the distribution of ale in some kind of ritual ceremony.<sup>222</sup>

Two locations have showed the occurrence of brewing stones in association with drinking horns found in burial graves. The first case I shall discuss is Skaun, which is probably the area with the highest concentration of drinking horns found in Trøndelag.<sup>223</sup> From Børseskogn, two drinking horns<sup>224</sup> and one sickle blade may suggest production and ritual distribution of ale.

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<sup>219</sup> One of the pots was found in the same cultural layer where also the brewing stones were found.

<sup>220</sup> Fretheim, Henriksen, "Undersøkelse av bosetningsspor og bryggesteinslag i vedskjulet på Foss Lian, Melhus kommune", p. 29-38.

<sup>221</sup> The largest metal cauldron referred to the late Iron/Viking Age Trøndelag has in fact been found in Steinvik, Ørland. The bronze cauldron (T4623) has a diameter of c. 38-40 cm and presumably had a capacity of 25-30 litres.

<sup>222</sup> The ladle T4622 may also be interpreted as a casserole.

<sup>223</sup> Still referred to the late Iron/Viking Age, with the exclusion of Trondheim. Other locations with evidence of more than one drinking horn are Gjeite, Levanger, with two drinking horns found in female burials, and the municipality of Stjørdal with one drinking horn from Myr Vestre (also from a female burial), and one from Auran Indre.

<sup>224</sup> The two drinking horns T8533 and T8540 have both been found in mound 16.

Besides, all the three objects are in association with female burials, however no traces of brewing stones have been detected for this farm. The other site Viggja/Viggen, on the contrary, has displayed cultural layers containing brewing stones dated to the Viking Age in combination with a scythe blade and a drinking horn. Moreover, a baking slab has also been recorded. In the light of these data, it is reasonable to assert that in Viggja farm all the procedures necessary to brew beer might have been performed: production and corn processing (scythe), malting (baking slabs or other techniques), brewing (brewing stones). The drinking horn placed in the grave was presumably used to serve ale or other alcoholic beverages before becoming a grave good.

SKAUN			
Amount	Object	Dating	Farm
1	drinking horn	Viking Age	Børseskogn (Huseby)
1	sickle blade	Viking Age	Børseskogn (Huseby)
1	drinking horn	Viking Age	Børseskogn (Huseby)
1	drinking horn	Late Iron Age/ Early Middle Ages	Storset
1	drinking horn	Late Iron Age/ Early Middle Ages	Viggen Ommunsgård
1	scythe blade	Viking Age/ Early Middle Ages	Viggen Ommundsgård
–	brewing stones	Viking Age	Viggja

Table 3. Archaeological assemblage examined for Skaun, Trøndelag.

Overhalla, in Nord-Trøndelag, is the site that displays the largest variety of archaeological assemblages concerning ale gathered in one single area. The district is characterised by continuity of settlement, from the early Iron Age to at least the Viking Age, as the sickle blades found can testify for the agricultural activity presumably executed. The finding of brewing stones detects the performance of productive activities related to beer brewing in the farms of Moseidet and Rygg. The grave context excavated in Vold, which dates to the late Iron Age, is particularly rich in grave goods linked to the drinking sphere, more precisely vessels for the distribution of alcohol, but brewing stones were not detected in the farm or in its surroundings. The assemblages have been classified as belonging to a male burial since the other objects of the grave goods are several blades and fragments of weapons (swords, spearheads, knives, scissors, and a silver needle). This interpretation is however uncertain. What makes Vold's site exceptional is the good state of preservation characterising some wooden objects, that generally undergo decomposition. The drinking horn T1184 (figure 10) is one of the few instances of drinking horn which also preserved part of the horn, not only the metal fittings. Other

assemblages in wood are a vessel (T1180), a ladle (T1181),<sup>225</sup> a bucket (T1183), a bowl (T1185) and another artifact that might be interpreted as barrel or plate (T1182). The unique shape of the wooden ladle (figure 11) would point towards a ceremonial usage associated to the practice of sharing alcohol rather than food processing.



Figure 11. The wooden ladle (T1181) from Vold, in Overhalla, Trøndelag.  
Courtesy of VM, NTNU



Figure 12. The wooden bowl (T1185) from Vold, in Overhalla, Trøndelag.  
Photo: Ole Bjøen Pedersen, courtesy of VM, NTNU.

As far as the corn production concerns, agricultural tools as sickle blades have been unearthed in Vold (one extant), five in the nearby farm of Skogmo Store, together with a scythe blade and the fragments of a metal cauldron, and single examples in the farms of Ristad, Melhus, Engstad, and Sandmoen. A possible reason for the occurrence of brewing stones in location that do not correspond to the burial sites might depend on the fact the facilities where beer was brewed were located far from the burial contexts in which the objects analysed have been deposited as grave goods.

OVERHALLA							
Amount	Object	Dating	Farm	Amount	Object	Dating	Farm
1	sickle blade	Early/late Iron Age	Rygg	1	cauldron	Late Iron Age (?)	Skogmo Store
1	drinking horn	Late Iron Age	Vold	1	scythe blade	Late Iron Age (?)	Skogmo Store
1	vessel/ plate	Late Iron Age	Vold	5	sickle blades	Late Iron Age	Skogmo Store
1	ladle	Late Iron Age	Vold	1	scythe blade	Viking Age (?)	Ristad
1	barrel (?)	Late Iron Age	Vold	1	sickle blade	Viking Age	Melhus
1	bucket	Late Iron Age	Vold	1	sickle blade	Viking Age	Engstad
1	bowl	Late Iron Age	Vold	1	sickle blade	Viking Age (?)	Sandmoen
1	sickle blade	Late Iron Age	Vold	–	brewing stones	Late Viking Age	Rygg
–	brewing stones	–	Mosetet				

Table 4. Archaeological assemblage examined for Overhalla, Trøndelag.

<sup>225</sup> Among the archaeological material analysed for this survey there is only another example of wooden ladle (T23629), from Strøm, Flatanger, but it survived in fragments. The other ladles are in bronze or iron.

### 4.3. Results

The analysis of the archaeological material from Trøndelag, combined with the data provided by the experimental approach and the technical characteristics of beer brewing, has shown that the production of smaller batches of ale was technically possible, and would have been performed in addition to large batches. As discussed above, big batches were problematic to brew for many reasons. Shortage of ingredients, necessity of specific facilities for fermentation and storage, problems related to fermentation and technical issues for keeping the temperature steady, might have prevented the success of a good batch of ale. On the contrary, smaller batches required less ingredients, and they could have been brewed more often. As a consequence, the beer was generally drunk fresh and it was not necessary to store it for too long, reducing then the chances of infection which could have spoiled the ale faster and turned it sour. We can thus assert that in the Viking Age there was a parallel production of ale in large and small batches. The large batches were generally brewed in the warmer season for technical motives related to the temperature needed for fermentation, since the average temperatures would have allowed the wort to ferment without a specific control on the temperature, and thanks to the availability of corn right after harvest, it was more difficult to run out of malt. It may be suggested that the purpose of these brews was mostly for rituals and annual celebrations such as *blót*, and might have involved the entire community. From a technical point of view, the vessels employed were presumably big wooden tubs or tuns, and brewing stones were used to provide the heat required for mashing, and boiling, if occurred.

Smaller batches of circa 20-30 litres may have been brewed within the household with common kitchen equipment, as for example kettles and cooking vessels in metal or soapstone employed for food processing. Though, also smaller wooden vessels could have been used. Even though the main heating technique was still the use of fire-cracked stones, as the excavations of cultural layers suggest, the employment of smaller vessels in metal and soapstone indicate that also a direct contact on the heating source was possible, hence cooking pits and common hearth. As well as the production, also fermentation and storage of the ale were performed inside the household, whose internal temperature would have been sufficient warm to ferment small batches also during the colder months. However, even though traces of foundations associated to secondary facilities, such as bath houses or ale-houses have not been detected in the areas of Trøndelag I investigated, this hypothesis cannot be excluded.

From the examination of the archaeological material, it has been impossible to determine to what extent women contributed to the process of brewing. However, their involvement in some of the procedures is suggested by the identification of some objects of the grave goods which potentially have been employed for brewing in female burials. On the contrary, drinking horns have been detected with more frequency in graves belonging to women. This data may signify that women had a more relevant role in the rituality of serving alcohol, rather than in its production.

Besides, the combined analysis of the archaeological material and the records of brewing stones found in cultural layers excavated so far, has allowed to identify five sites in Trøndelag where presumably brewing activities have been performed. In two locations, Skaun and Overhalla, the production of ale might have been linked to drinking parties or ritual purposes, since also drinking horns have been detected among the grave goods examined.

## CHAPTER FIVE: ANALYSIS: CULTURAL AND SYMBOLIC IMPLICATION REGARDING ALE IN THE VIKING AGE

### 5.1. The Terminology of “Ale”

In the poem *Alvíssmál* Thor asks to the dwarf Alvis how ale is called by the different races which dwell in the universe,

„33. ‘Segðu mér þat, Alvíss, – ǫll of roç fira  
voromc dvergr, at vitir –,  
hvé þat ǫl heitir, er drecca alda synir  
heimi hveriom í.’

34. ‘Ǫl heitir með mǫnnom, enn með ásom bjórr,  
kalla veig vanir,  
hreinalǫg iǫtnar, enn í helio mjǫð,  
kalla sumbl Suttungs synir.’<sup>226</sup>

English translation:

“33. “Tell me this, All-wise—I reckon, dwarf,  
that you know all the fates of men—  
what ale is called, which the sons of men drink,  
in each world.”

34. “Ale it’s called among men, and beer by the gods,  
the Vanir call it liquor,  
clear-brew the giants, and mead in hell,  
the sons of Suttung call it drink.”<sup>227</sup>

“Ale” is defined with different terms among men, Æsir, Vanir, giants and dwarves, and the words Alvis enumerates for “ale” are commonly used to refer to other drinks which are not beer. The first two terms we encounter are *ǫl* (n.) and *bjórr* (m.). According to Zoëga *ǫl* should

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<sup>226</sup> *Edda. Die Lieder des Codex Regius nebst verwandten Denkmälern I*, ed. by G. Neckel, H. Kuhn, p. 129.

<sup>227</sup> *The Poetic Edda*, trans. by C. Larrington, p. 109.



be translated as “ale”<sup>228</sup> whereas *bjórr* as “beer”<sup>229</sup>. Their distinction has generally been explained with a different alcoholic content, *öl* has less alcohol, while *bjórr* is stronger, but they both refer to a beverage derived from the fermentation of malted cereals. Merryn Dineley, on the contrary, explains that the main difference between ale and beer is in the preservative herbs used, hence ale was flavoured with herbs which do not need to be boiled, while beer contains hops which need to be boiled.<sup>230</sup> When confronting these terms with the literary texts I analysed, *bjórr* occurs three times, in *Völundarkviða* (stanza 28) and in two the poetic sections of *Völsunga saga*, when denoting a special drink (chapters 21 and 34). In chapter 21 Brynhildr serves Sigurðr with the “ale of the runes”, therefore sharing with him her wisdom,

„Brynhildr fyllði eitt ker ok færði Sigurði ok mælti:

(6) Bjór færi ek þér,  
brynþinga valdr,  
magni blandinn  
ok megintíri.  
Fullr er ljóða  
ok líknstafa,  
góðra galdra  
ok gamanræðna.“

English translation:

“Brynhild filled a cup, brought it to Sigurd and said:

(6) Ruler of battles,  
I now bring you ale  
mixed with great power,  
mingled with fame,  
filled with versed charms  
and friendship runes,  
with goodly spells,

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<sup>228</sup> Zoëga, *A Concise Dictionary of Old Icelandic*, p. 528.

<sup>229</sup> Zoëga, *A Concise Dictionary of Old Icelandic*, p. 56. *Bjórr* can also be translated as “strong ale” (Chiesa Isnardi, *I Miti Nordici*, p. 523).

<sup>230</sup> Dineley, Merryn, “The Ancient Magic of Malt: Making Malt Sugars and Ale from Grain Using Traditional Techniques” [<https://exarc.net/issue-2021-2/at/ancient-magic-malt-making>] accessed 15.11.2021.

with gay talk brimming.”<sup>231</sup>

The other instance can be found in chapter 34 and describes the scene in which Grimhildr offers to Guðrún, her daughter, a “doctored drink” (*meinsamligan drykk*) so she will forget the tragedy concerning her husband Sigurðr and their sons,

„Síðan færði Grímhildr henni meinsamligan drykk, ok varð hon við at taka ok mundði síðan engar sakar.

Sá drykkur var blandinn með jarðar magni ok sæ ok dreyra sonar hennar, ok í því horni váru ristnir hvers kyns stafir ok roðnir með blóði, sem hér segir:

[...] (29) Váru þeim bjóri  
böl mǫrg saman:  
urt alls viðar  
ok akarn brunninn,  
umdogg arins,  
iðrar blótnar,  
svíns lifr soðin,  
því at sakar deyfði.“

English translation:

“Then Grimhild brought her a doctored drink, and she had to take it and afterwards she had no memory of any of her wrongs.

That drink was mixed with the power of the earth, with the sea and her son’s blood. In the horn characters of all kinds were engraved and reddened with blood, as this verse says:

[...] (29) Many were the ill  
mixed with that ale:  
herbs of all the wood,  
and acorns scorched,  
the dew of the hearth,  
hallowed entrails,

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<sup>231</sup> *The Saga of the Volsungs [Völsunga saga]*, ed. and trans. by R. G. Finch, pp. 62-63.

pig's liver boiled  
for blunting wrongs.”<sup>232</sup>

The type of beverage associated with *bjórr* is therefore a drink with magical properties, which can either give knowledge or make people forget, and prepared with herbs and exclusive ingredients. Other special drinks are also mentioned in chapter 10 and 30 of *Völsunga saga*, however in both cases the beverage is defined with the term *öl*. In chapter 10, Borghildr, wife of King Sigmund, is arranging the funeral feast of her brother, who has been killed in battle by Sinfjotli, son of King Sigmund. The king decided to compensate Borghildr for her brother's loss with gold, however Borghildr did not accept this resolution because she wanted Sinfjotli to leave the realm. Therefore, Borghildr avenges her brother's death by poisoning Sinfjotli to death during the funeral feast. The words she addresses to Sinfjotli when the king is about to take a sip of the poisonous drink meant for him are, “Why should other people drink ale for you?” said the queen (Drottningin mælti, „Hví skulu aðrir menn drekka fyrir þik öl?“).<sup>233</sup> Likewise, in a conversation between Brynhildr and Guðrún (in chapter 30), the wicked beverage which Grimhildr serves to Sigurðr is named by the Valkyrie as “harmful [draught of] ale” (*grimmt öl*).<sup>234</sup> In the light of the examined passages, it is impossible to clearly define a distinction between *öl* and *bjórr* based on the special ingredients they were made with, as both terms are employed for referring to a beverage with magical or poisonous features, whose preparation required indeed unusual herbs and components. Besides, the same poisoned drink mentioned in chapter 30, is identified in Brynhildr's dream (chapter 27) as “drugged mead” (*meinblandinn mjöð*).<sup>235</sup> The text of *Völsunga saga* shows therefore a certain degree of inconsistency in the distinction between alcoholic beverages. Only in *Völundarkviða* it seems that *bjórr* might connote a strong version of ale.

Going back to stanza 34 of *Alvíssmál* and its analysis, we can read that “ale” is called *veig* by the Vanir, *hreinolög* by the giants in Jotunheim, *mjöðr* in Helheim and *sumbl* by the sons of Suttungr.<sup>236</sup> As reported in Zoëga's dictionary<sup>237</sup>, *veig* (f.) stands for “strong beverage, drink”, but it does not specify what kind of beverage it is, at the same time *mjöðr* (m.), which is

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<sup>232</sup> *The Saga of the Volsungs [Völsunga saga]*, ed. and trans. by R. G. Finch, p. 62.

<sup>233</sup> *The Saga of the Volsungs [Völsunga saga]*, ed. and trans. by R. G. Finch, p. 18.

<sup>234</sup> *The Saga of the Volsungs [Völsunga saga]*, ed. and trans. by R. G. Finch, p. 52.

<sup>235</sup> *The Saga of the Volsungs [Völsunga saga]*, ed. and trans. by R. G. Finch, p. 46.

<sup>236</sup> Suttungr, was a giant who received the mead of poetry from the dwarves Fjalarr and Galarr, for having killed his father Gillingr. Suttungr eventually hid the mead in the mountain Hnitbjörg, with his daughter Gunnlöd as guardian (Chiesa Isnardi, *I Miti Nordici*, pp. 90-91).

<sup>237</sup> Zoëga, *A Concise Dictionary of Old Icelandic*, p. 479.

normally translated into “mead”,<sup>238</sup> designates “ale” in Helheim. *Sumbl* (n.), on the contrary, is translated by Zoëga as “banquet”<sup>239</sup>. On this regard, *veizla* (f.) is the term for banquet/feast which is more common to find in the sagas’ prose narrative. Besides, the drink that Brynhildr gives to Sigurðr is also called *minnisveig* (the drink of memory) in connection with the “ale of the runes”.<sup>240</sup> A term which designates “ale” and does not occur among the words enumerated by Alvis, but still can be found in other literary and written sources, is *mungát* (n.). The word *mungát* may refer to “homebrewed ale”, according to the Italian philologist Gianna Chiesa Isnardi,<sup>241</sup> whereas in Zoëga the translation is simply “ale, small beer”.<sup>242</sup> The two interpretations might to some extent be linked to each other, if we take into consideration what has been argued about the production of beer in small batches. In the previous chapter, I discussed the possibility that in the Viking Age smaller batches were brewed within a domestic context for an everyday consumption. Moreover, to avoid waste of corn and to produce more ale with the same amount of malt, there were two methods that the Vikings might have adopted. The first solution consists in using more water, or *einerlæg*, to have less malt in proportion to the liquid used in the mash. The outcome would be more litres of an ale that is low in alcohol, or conversely, less malt required for the same amount of beer. Zoëga’s translation of *mungát* in “small ale” would therefore refer to the low percentage of alcohol contained in a homebrewed ale. The other resolution could have been the practice of brewing a second batch of ale by re-mashing the grains employed for the first, “main” mash. Hence, *mungát* would denote what in modern Norwegian is called *spissøl*.

If we look at the literary sources, *mungát* appears in the first chapter of *Hálfs saga ok Hálfsrekka* in the compound word *mungátsgerð*, which connotes “brewing homebrewed ale”<sup>243</sup>. In the text, *mungátsgerð* is used to outline Geirhildr’s skill in brewing beer, which is considered positively and a good reason to choose her as a wife, “Alrek had a retainer called Koll, and Koll went north with the king to Sogn and he spoke a great deal to the king about the beauty of Geirhild Drif’s daughter—having seen her brewing ale—and he told the king he thought they’d make a good match”,<sup>244</sup> („Kollr hét hirðmaðr hans, ok fylgdi hann konungi norðr í Sogn ok sagði

<sup>238</sup> The alcoholic drink made from honey.

<sup>239</sup> Zoëga, *A Concise Dictionary of Old Icelandic*, p. 417.

<sup>240</sup> Chiesa Isnardi, *I Miti Nordici*, p. 522.

<sup>241</sup> Chiesa Isnardi, *I Miti Nordici*, p. 523.

<sup>242</sup> Zoëga, *Concise Dictionary of Old Icelandic*, p. 303.

<sup>243</sup> Zoëga reports “mungáts-görð” (f.) as “brewing of *mungát*” (Zoëga, *A Concise Dictionary of Old Icelandic*, p. 303).

<sup>244</sup> *Hálfs saga ok Hálfsrekka*, trans. by Peter Tunstall (2005)

[<https://web.archive.org/web/20100908082818/http://www.oe.eclipse.co.uk/nom/Half.htm>] accessed 15.03.2021.

konungi allmikit frá vænleik Geirhildar Drífisdóttur, því at hann hafði sét hana við mungátsgerð, ok kveðst honum unna þess ráðs.)<sup>245</sup> The other occurrence is in the eleventh chapter of *Bósa saga ok Herrauðs* in which *mungát* is employed in regards of the ale that Bósi and Herraud drink in a farmer's home. While engaged in the vulture egg's quest, they find hospitality from a man who lives with his wife and a daughter. Since the context of the scene is domestic and humble, it is likely that *mungát* identifies an ale which is homebrewed in the farm and possibly with low alcohol content. Moreover, the homebrewed ale is served by the farmer's daughter, "the table was laid, and the guests were served with excellent beer. The master of the house was silent and reserved, but his daughter, the most sociable member of the household, was the one who served the guests"<sup>246</sup> („... ok váru tekin upp borð ok gefit mungát at drekka. Bónði var fálátr ok óspurull. Bóndadóttir var þar mannúðigust, ok skenkti hún gestum“).<sup>247</sup>

Also, the occurrence of each drink mentioned in the sources (*öl*, *bjórr*, *mungát*, *mjóðr*, *vín*, *drekka brúðlaup*, *drykk*, and *drykkjumál*) has been compared with the type of action they are associated to, i.e., serving or drinking alcohol. Some of the data reported in the graphs may refer for both serving and drinking, therefore they have been recorded in both graphs, while one source may contain more than one type of drink. It is interesting to note that the data for *öl* is the most variable, and appears more often in the context of serving, rather than drinking. For a total of seventeen instances of drink mentioned for "serving" (table 5), eight are for *öl*, three for both *vín* and *mjóðr*, and only one for *bjórr*, *mungát*, and *drykk*. As for "drinking" (table 6), for a total of fifteen occurrences, four are for *öl* and *vín*, two for *mjóðr* and *bjórr*, and one for *drekka brúðlaup*, *drykk*, and *drykkjumál*.

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<sup>245</sup> *Bósa saga ok Herrauð*, in *Fornaldar sögur Nordurlanda: 2*, ed. by Guðni Jónsson, Bjarni Vilhjálmsson, [[https://heimskringla.no/wiki/B%C3%B3sa\\_saga\\_ok\\_Herrau%C3%B0s](https://heimskringla.no/wiki/B%C3%B3sa_saga_ok_Herrau%C3%B0s)] accessed 25.11.2021.

<sup>246</sup> Pálsson, Edwards, (trans.), *Seven Viking Romances*, p. 217.

<sup>247</sup> *Bósa saga ok Herrauð*, in *Fornaldar sögur Nordurlanda: 2*, ed. by Guðni Jónsson, Bjarni Vilhjálmsson, [[https://heimskringla.no/wiki/B%C3%B3sa\\_saga\\_ok\\_Herrau%C3%B0s](https://heimskringla.no/wiki/B%C3%B3sa_saga_ok_Herrau%C3%B0s)] accessed 25.11.2021.

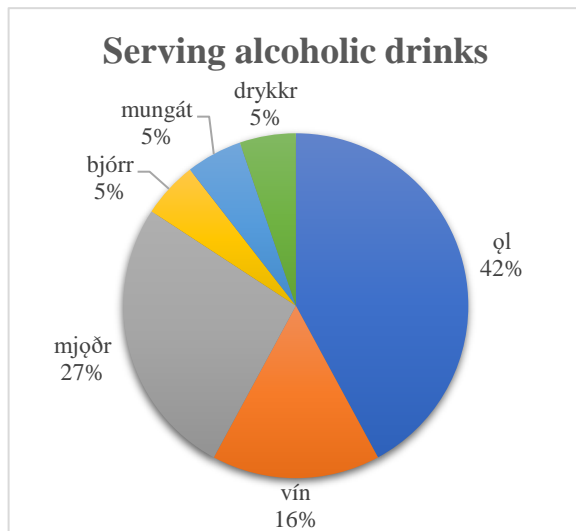


Table 5. Representation in percentage of the occurrence in the literary sources of alcoholic drinks regarding the action of serving alcohol.

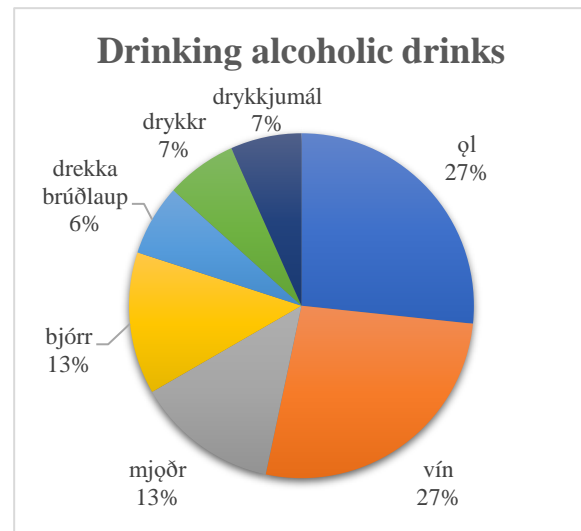


Table 6. Representation in percentage of the occurrence in the literary sources of alcoholic drinks regarding the action of drinking alcohol.

## 5.2. Women brewing ale: „Hann hafði sét hana við mungátsgerð”

The examination of equipment and procedures that might have been used for beer brewing in the Viking Age has been drawn in the Chapter Four. With the assistance of experimental brewing and archaeological evidence, it has been possible to point out some locations in Trøndelag where the production and distribution of ale might have taken place. We have also determined that beer making was performed to produce both large and small batches, depending on the circumstances, and that its production was meant for both ritual purposes and for daily consumption. Besides, the information regarding the gendering of the archaeological assemblages analysed has showed that beer should be considered as a genderless activity. The archaeological sources, however, are unable to provide a clear explanation of what kind of role women played in the production of beer. For this purpose, we can find support from the literary material.

Unfortunately, Old Norse prose narratives are not particularly rich of episodes documenting women brewing beer. The only instance recorded by Inger Boberg is the brewing competition between two women, Signý and Geirhildr, described in the first chapter of the legendary saga *Hálfs saga ok Hálfsrekka*. The episode occurs probably at the court of the Norwegian legendary King Alrekr, somewhere in Hordaland. King Alrekr was already married with Signý, daughter of the king of Voss, however he becomes interested in marrying Geirhildr Drífisdóttur after he saw her ability in brewing good beer. He then marries Geirhildr, but the rivalry between the two wives becomes unmanageable, so the king resolves by arranging a brewing contest, in

which whoever brews the best ale will be the winner, i.e., the king's only wife. Both women call for gods' intervention, Signý preys to Freyja while Geirhildr to Óðinn, named Hötrr (Hood) in the text. Eventually Geirhildr wins,

„Alrekr hét konungr, er bjó á Alreksstöðum. Hann réð fyrir Hörðalandi. Hann átti Signýju, dóttur konungs af Vörs. Kollr hét hirðmaðr hans, ok fylgdi hann konungi norðr í Sogn ok sagði konungi allmikit frá vænleik Geirhildar Drífsdóttur, því at hann hafði sét hana við mungátgerð, ok kveðst honum unna þess ráðs. Til fundar við Geirhildi kom Hötrr, er Óðinn var reyndar, þá er hún var at léreptum. Hann keypti því við hana, at Alrekr konungr skyldi eiga hana, en hún skyldi á hann heita til alls. Konungr sá hana, er hann fór heim, ok gerði brúðlaup til hennar it sama haust. Konungr launaði Koll vel trúleik sinn ok gaf honum jarlsdóm ok atsetu í Kollsey fyrir sunnan Harðsæ, ok er þat fjölbyggt herað. Alrekr konungr mátti eigi eiga þær báðar fyrir ósamþykki þeira ok kveðst þá þeira eiga skyldu, er betra öl gerði mót honum, er hann kæmi heim ór leiðangri. Þær kepptust um ölgerðina. Signý hét á Freyju, en Geirhildr á Hött. Hann lagði fyrir dregg hráka sinn ok kveðst vilja fyrir tilkvámu sína þat, er var milli kersins ok hennar. En þat reyndist gott öl. Þá kvað Alrekr:

"Geirhildr, getta, gott er öl þetta,  
ef því andmarkar engir fylgja.  
Ek sé hanga á hávum gálga  
son þinn, kona, seldan Óðni."

Á þeim misserum var fæddr Víkarr, sonr Alreks ok Geirhildar.<sup>248</sup>

English translation:<sup>249</sup>

“There was a king called Alrek who lived at Alreksstadir. He ruled over Hordaland. He married Signy, the daughter of the king of Voss. Alrek had a retainer called Koll, and Koll went north with the king to Sogn and he spoke a great deal to the king about the beauty of Geirhild Drif's daughter—having seen her brewing ale—

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<sup>248</sup> *Hálfs saga ok Hálfsrekka*, in *Fornaldar sögur Nordurlanda: 2 [Fornaldarsögur Norðurlanda]*, ed. by Guðni Jónsson, Bjarni Vilhjálmsson, [[https://heimskringla.no/wiki/H%C3%A1lfs\\_saga\\_ok\\_H%C3%A1lfsrekka](https://heimskringla.no/wiki/H%C3%A1lfs_saga_ok_H%C3%A1lfsrekka)] accessed 25.11.2021

<sup>249</sup> Translation of the prose text by Peter Tunstall, *Hálfs saga ok Hálfsrekka*, trans. by Peter Tunstall (2005) [<https://web.archive.org/web/20100908082818/http://www.oe.eclipse.co.uk/nom/Half.htm>] accessed 25.11.2021.

and he told the king he thought they'd make a good match. As Geirhild was dressing, Hood (who was really Odin) came to her. He made a bargain with her, that King Alrek would marry her, but she must call on Hood in all things. The king saw her on his way home, and they were wed that same autumn. The king rewarded Koll well for his loyalty and made him a jarl and gave him a residence at Kollsey, south of the Hard Sea, and that's a well populated district. On account of their squabbles, King Alrek couldn't keep both wives and so he said he'd keep the one who made him the best ale when he came home from his summer's raiding. They competed at the brewing. Signy prayed to Freyja, and Geirhild to Hood. He spat on the yeast and said he'd be back for what was between the tub and her. And that proved good ale. Then Alrek said:

“Geirhildr, girl, this ale is good, if there are no faults connected with it. I see your son, woman, hanging on the high gallows, handed over to Óðinn.”<sup>250</sup>

Within the year, Vikar was born, the son of Alrek and Geirhild.”

The passage does not provide relevant information about the actual process of beer brewing. There is no mention of which ingredients have been used, malt, herbs (sweet gale, juniper, meadowsweet, hops), neither which technical procedures were performed, for instance which heating source was used, a hearth or brewing stones, or what kind of cooking vessel was employed, its size and material, or how mashing and possibly boiling were handled. Thus, this excerpt is not particularly significant for an investigation whose purpose is to study the technical aspects related to ale brewing in the Viking Age. However, as mentioned above when discussing about the issues connected to fermentation, the interesting aspect that emerges from the text concerns the yeast, and the fact that it is mentioned by the author as *dregg*.<sup>251</sup> Although the reference to yeast is not detailed and does not explain how fermentation was accomplished, this information might signify that at least in the early fourteenth century, when the saga was compiled, there was a certain degree of knowledge concerning the microorganism scientifically known as *Saccharomyces cerevisiae*, and its fundamental function in fermentation. By

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<sup>250</sup> In Seelow's edition: “Geirhildr, getta, þetta öl er gott, ef öngvir annmarkar fylgja því. Ek sé son þinn, kona, hanga á háum gálga, seldan Óðni”. See *Hálfs saga ok Hálfsrekka* (Alrekr konungr, Lausavísa 1), ed. by H. Seelow, in M. Clunies Ross (ed.), *Skaldic Poetry of the Scandinavian Middle Ages 8: Poetry in fornaldarsögur*, (Turnhout: Brepols, 2017), [<https://skaldic.abdn.ac.uk/m.php?p=verse&i=4912>] accessed 25.11.2021.

<sup>251</sup> *Dregg* (f.) = yeast (Zoëga, *A Concise Dictionary of Old Icelandic*, p. 93).



extension, as there exists a specific term for yeast, it might be safe to assume that yeast was used on purpose and in a controlled manner when fermenting ale. With this statement I do not intend to contest the possibility that ale was fermented with wild yeast, on the contrary, the natural action of airborne bacteria might have been the most common way to start the fermentation, however, the fact that the author mentions the word “yeast” may be a proof that there were brewing procedures that contemplated the voluntarily introduction of yeast in the wort by the brewer.<sup>252</sup>

The text is a valuable source for the analysis of the cultural meaning that ale had in medieval society and, by extension, also Viking society. In this specific case, two women, both married to the same man, King Alrekr, are contending in a brewing competition in which their ability in making good beer will be judged. As I have previously pointed out, ale covered an essential ritual and juridical role in Viking Age society. Ale was indeed brewed for special celebrations, rites of passage, and annual *blót*, whereas the authority and rituality around this beverage has served for swearing oaths, consolidate bonds within the warband, or determining social hierarchy with the ritual of the cup’s distribution, in events such as banquets and drinking ceremonies. If we bear in mind all these aspects regarding ale, then we may understand how significant the participation of women in the preparation of ale was. Besides, the social relevance which women had in regards of ale brewing is underlined by the fact that they are positively judged, and therefore deemed as good wives, if they are good brewers. After all, if we consider all the skills and knowledge required for brewing beer, starting from harvesting the crops, malting the grain, mashing, maybe boiling, and then fermenting, without considering all the issues concerning fermentation and cleanliness of vessels and wort, in order to obtain an ale which tasted good, then we may presume that Signý and Geirhildr final results depended on their ability to master all these technical aspects.

Since in the Viking Age all the scientific variables related to mashing techniques and fermentation temperature were not known, and which can influence the success of a brew, people generally invoked supernatural forces such as deities, or performed superstitious rites to dispel from evil forces the wort that could have hindered fermentation, and therefore ruined the beer.<sup>253</sup> The intervention of external and supernatural forces is in fact what we can read in the

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<sup>252</sup> These might be true at least for the Middle Ages. It is more uncertain for the Viking Age, since there are no contemporary sources citing yeast.

<sup>253</sup> The practice of screaming against the evil forces is still done by brewers who follow the old tradition (indication in the recipe I consulted for brewing my *gårdsøl*).

text, i.e., both Signý and Geirhildr ask for the gods intercession. As argued by Hubert Seelow, it is evident from the prose part that Geirhildr makes a deal with Óðinn, so she can win the competition and become King Alrek's only wife, while Signý prays Freyja.<sup>254</sup> Óðinn accepts to help Geirhildr by spitting into the yeast, however demanding in exchange the life of her son Vikar.<sup>255</sup> This is the meaning of the poetic part, „Ek sé hanga á hávum gálga son þinn, kona, seldan Óðni“, spoken as a sentence by King Alrek when declaring Geirhildr as the winner of the competition. For the woman, these words are at the same time a verdict of victory and a declaration of loss. The mythological component is further highlighted by the reference to Óðinn's action of spitting on the yeast, which evokes the episode of the mead of poetry, stolen by Óðinn from Suttungr and spat by him into the Æsir.

A final note must be addressed to the terminology regarding ale. *Mungátsgerð*, and consequently *mungát*, appears in the text only one time when describing Geirhildr's skills as brewer of ale. *ǫl* is the other term for ale/beer encountered in the text. It can be found three times in both prose and poetic parts, plus in the compound word *ölgerðina* in “Þær kepptust um ölgerðina” which literally means “they (third plural person for feminine forms) confront each other (reflexive form of *keppa*<sup>256</sup>) in ale brewing”. It is worthy to note that the author described the action of ale brewing with two words whose morphologic composition is similar: a word that refers to ale/beer, *mungát* or *ǫl*, to which it has been added the verb *gera/gøra* in its form *gerð*.

### **5.3. Women Serving Ale: „Ok gefit gott öl at drekka, ok skenkti bóndadóttir”**

In a Germanic, pagan tribal society as the one which inhabited Scandinavia in the Viking Age, ale was central in every part of daily and ritual life. As I have argued above, ale might have been consumed daily in substitution of water, in a version with lower alcohol content, however, its main role was as a sacred drink for ceremonies and rites. In this subchapter I wish to analyse the ritual functions and symbolic meanings concerning ale in the Viking Age, however from a female perspective. For this purpose, I divided the argumentation into two parts: the first section

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<sup>254</sup> *Hálfs saga ok Hálfsrekka* (Alrekr konungr, Lausavísa 1), ed. by H. Seelow, [<https://skaldic.org/skaldic/m.php?p=text&i=75&v=intro>] accessed 25.11.2021.

<sup>255</sup> *Hálfs saga ok Hálfsrekka* (Alrekr konungr, Lausavísa 1), ed. by H. Seelow, [<https://skaldic.org/skaldic/m.php?p=text&i=75&v=intro>] accessed 25.11.2021.

<sup>256</sup> *Keppa* (-ta, -t) = to contend, strive hard (Zoëga, *A Concise Dictionary of Old Icelandic*, p. 239).

deals with examples showing women serving alcoholic drinks to men, as the model of the “lady with a mead cup” theorised by Michael Enright, in the second part I shall discuss the custom to serve and drink ale in those rituals called “rites of passage” or “ale-rituals”.

In *Skáldskaparmál*, chapter 31, Snorri describes how a woman should be represented,

„Konu skal kenna til alls kvenbúnaðar, gulls ok gimsteina, ǫls eða víns eða annars drykkjar þess er hon selr eða gefr, svá ok til ǫlgagna ok til allra þeira hluta er henni samir at vinna eða veita. Rétt er at kenna hana svá at kalla hana selju<sup>257</sup> eða lóg þess er hon miðlar, en selja eða lág, þat eru tré.“<sup>258</sup>

English translation:

“A woman shall be referred to by all female adornment, 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. It is proper to refer to her by calling her dealer (*selia*) or consumer (*lóg*) of what she hands out, but *selia* [willow] and log are trees.”<sup>259</sup>

This passage is extremely significant because it illustrates that women are defined by their activity of walking around in the drinking hall and serving, „ǫls eða víns eða annars drykkjar“. The ritual of bearing and serving the alcoholic drink to the guests, generally men, is very important in Germanic pagan cultures, because “the lady with a mead cup” is the instrument which sanctifies her husband status naming him lord, by serving him before all others and causing each of the retainers to drink after him.<sup>260</sup> Her social role is to create bonds based on kinship between the lord, her husband, and his retainers, while establishing a hierarchy as the drink offering must proceed strictly according to rank.<sup>261</sup>

I have detected three other instances of women behaving according to the model of the “lady with a mead cup”.<sup>262</sup> The first excerpt is from a text I have discussed above, i.e., the episode where queen Borghildr poisons her stepson Sinfjotli and her husband King Sigmund, from chapter 10 of *Völsunga saga*. Before offering the poisonous drink to Sinfjotli, she serves the

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<sup>257</sup> *ǫlselja* = a female cup-bearer, Zoëga, *A Concise Dictionary of Old Icelandic*, p. 528. Cfr. definition of *selja*= to hand over, deliver, Zoëga, *A Concise Dictionary of Old Icelandic*, p. 354.

<sup>258</sup> Snorri Sturluson, *Edda. Skáldskaparmál*, ed. by A. Faulkes, p. 40, line 16.

<sup>259</sup> Snorri Sturluson, *Edda*, ed. and trans. by A. Faulkes, p. 94.

<sup>260</sup> Enright, *Lady with a Mead Cup*, p. 22.

<sup>261</sup> Enright, *Lady with a Mead Cup*, p. 12.

<sup>262</sup> Four instances if counting the episode from *Flóamanna saga* (ch. 2).

guests carrying around her brother's funeral ale, "then, with the king's consent, she set about the arrangements for her brother's funeral feast, providing the best of food and drink, and she invited many important men to it. Borghild carried the drink around to the men." („hon gerir nú erfi bróður síns ráði konungs, býr nú þessa veizlu með inum beztum fongum ok bauð þangat mǫrgu stórmenni. Borghildr bar mǫnnum drykk“).<sup>263</sup> The other woman of high status who behaves accordingly to "the lady with a mead cup" model is Bolfriana,<sup>264</sup> a minor character in the chivalric saga *Þiðreks saga af Bern*, more precisely the saga *Írons þáttur jarls*, which accounts events from the age of the Huns.

In chapter 269 it is told that the King Attila is invited with all his retainers and knights at a feast, a banquet, by the *hertogi*<sup>265</sup> Áki, who is Bolfriana's husband. Bolfriana acts for all the banquet's duration as the lady of the household, pouring alcohol for the guests all the evening, ("Bolfriana, wife of the duke, serves [the alcohol] during the evening. She was the most beautiful of all women. She serves all the noble man"<sup>266</sup> („Bolfriana, kona hertogans, skenkir um kveldit. Hún er allra kvenna fríðast. Hún skenkir tignum mönnum“).<sup>267</sup> Among Attila's knights, the jarl of Brandinaborg Íron draws Bolfriana's attention because of his attractiveness. Alcohol flows abundantly for the duration of the feast, and all the guests are then very drunk (*dauðdruknir*) except for Bolfriana and the jarl Íron, "All the other men drink and are cheerful, and all are lying down drunk except for jarl Íron and Bolfriana"<sup>268</sup> („Allir menn aðrir drekka ok eru kátir, ok um síðir leggjast allir dauðdruknir niðr nema Íron jarl ok Bolfriana“).<sup>269</sup> Bolfriana and the jarl Íron have therefore the opportunity to speak in intimacy and before leaving, the jarl gives to Bolfriana a golden ring. The next day King Attila and all his entourage leave for Rome to participate to another feast in which also King Þiðrekr will take part. In chapter 271 Bolfriana is again depicted while pouring drinks to her husband and the guests,

Frú Bolfriana stendr ok skenkir hertoganum, ok þá er hún gengr í móti borðkerinu, er skenkjarinn hefir inn borit, þá kemr til hennar sendimaðrinn ok fær henni bréfit í hönd ok segir henni jartegnir. Hún lætr bréfit í sinn pung ok mælti, at Íron jarl skyldi

<sup>263</sup> *The Saga of the Volsungs [Völsunga saga]*, ed. and trans. by R. G. Finch, p. 18.

<sup>264</sup> Also Helga, in *Flóamanna saga* (ch. 2), serves ale to the guests in a feasts organised by Ingólfr, her brother, and Leifr, Ingólfr's foster brother, "Nú koma þeir bræðr til veizlunnar, ok er mǫnnum skipat í sæti. Helga bar ǫl at veizlunni; hon var allra kvenna vænst ok kurteisust", in *Flóamanna saga*, ed. by Finnur Jónsson, p. 3.

<sup>265</sup> *hertogi* (m.), duke, commander of the troops (Zoëga, *Concise Dictionary of Old Icelandic*, p. 197).

<sup>266</sup> My translation.

<sup>267</sup> *Þiðreks saga af Bern II*, ed. by Guðni Jónsson, p. 147.

<sup>268</sup> My translation.

<sup>269</sup> *Þiðreks saga af Bern II*, ed. by Guðni Jónsson, p. 148.

ríða í borgina, þá er Áki væri brott riðinn um nótt. Riddarinn hverfr brott ór höllinni skyndiliga.<sup>270</sup>

English translation:

Lady Bolfriana stands and pours out the drink for the duke, and then she goes towards the table, and when she is done serving, a messenger comes towards her and gives a letter in her hand and tells the tokens. She puts the letter in her purse and says that jarl Íron should ride inside the village, when Áki had ridden away that night. The knight suddenly leaves the palace.<sup>271</sup>

A third example can be found in chapter 37 of *Ynglinga saga*. The setting is a banquet at King Granmarr's hall to which King Hjörvarðr, of the Yngling lineage, partakes with his troops of Viking warriors. Hildiguðr, daughter of King Granmarr, behaves as the "lady with a mead cup" and serves ale to the troops and to King Hjörvarðr after her father's instructions, "then King Granmarr said to his daughter Hildiguðr that she should make herself ready and serve ale to the vikings. She was the most beautiful woman. Then she took up a silver goblet and fillet it and went before King Hjörvarðr."<sup>272</sup> („Þá mælti Granmarr konungr við Hildigunni, dóttur sína, at hon skyldi búa sik ok bera ǫl vilingum. Hon var allra kvinna fríðust. Þá tók hon silfrkálk einn ok fyllði ok gekk fyrir Hjörvarð konung“).<sup>273</sup>

Although the Icelandic family sagas are not part of the literary sources examined for this survey, as I excluded them from the corpus of the written material, I wish to pinpoint that the ritual of the cup occurs also in the Norwegian colonies settled in Iceland. In the second chapter of *Flóamanna saga*, we can read that Helga offers ale to the guests in a feast organised by Ingólfr, her brother, and Leifr, Ingólfr's foster brother, "Now the brothers come to the feast, and the men are seated. Helga carries the ale during the banquet. She was the most beautiful and polite of all women"<sup>274</sup> ("Nú koma þeir bræðr til veizlunnar, ok er mǫnnum skipat í sæti. Helga bar ǫl at veizlunni; hon var allra kvenna vænst ok kurteisust").<sup>275</sup>

A further examination of the literary sources has highlighted that the offering of the alcoholic drink is not solely attributable to the function performed by the "lady with a mead cup". On the

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<sup>270</sup> *Þiðreks saga af Bern II*, ed. by Guðni Jónsson, p. 150.

<sup>271</sup> My translation.

<sup>272</sup> Snorri Sturluson, *Heimskringla, Heimskringla: Vol. 1: The beginnings to Olaf Tryggvason*, trans. by A. Finlay and A. Faulkes, p. 38.

<sup>273</sup> Snorri Sturluson, *Heimskringla I*, ed. by Bjarni Aðalbjarnarson, p. 68.

<sup>274</sup> My translation.

<sup>275</sup> *Flóamanna saga*, ed. by Finnur Jónsson, p. 3.

contrary, sagas also depict women serving specifically one single man, e.g., their lover, or offering the welcoming ale (*fagnaðaröl*). Two analogous episodes included in *Bósa saga ok Herrauð*, portray Bósi and Herraud in Bjarmaland (Permian), somewhere in the Baltics. In chapter 7 they are described while wandering in the forest Vínuskógr, however they manage to find a shelter and hospitality in a farmer's home, who lives with his wife and his young daughter. In the scene, the young girl is portrayed as the one who receives Bósi and Herraud and serves them with good ale.

„Dóttur áttu þau væna, ok dró hún klæði af gestum, ok váru þeim fengin þurr klæði. Síðan váru handlaugar fram látnar, ok var þeim reist borð ok gefit gott öl at drekka, ok skenkti bóndadóttir.“<sup>276</sup>

English translation:

“The girl pulled off their wet clothes and gave them dry things instead, then brought a basin so they could wash their hands. The table was laid, and the young woman served them with excellent ale.”<sup>277</sup>

An equivalent circumstance is described in chapter 11. Since the episode has already been analysed when discussing the word *mungát*, the corresponding passage will not be reported for a second time. The drink that the two girls offer to Bósi and Herraud may be interpreted as “welcoming ale” (*fagnaðaröl*). Another instance of *fagnaðaröl* is when Sigurðr pays a visit to his mother Hjordis, who offers him a welcoming drink, “He now went to his mother. She made him welcome, and they talked and drank together”<sup>278</sup> („Gekk nú til móður sinnar. Hon fagnar honum vel. Talask nú við ok drekka“).<sup>279</sup>

Another example in which a young woman offers a drink to one single guest can be found in chapter 25 of *Heimskringla*. The episode depicts King Haraldr inn hárfagri and the Sami princess Snæfríðr, daughter of King Svási.<sup>280</sup> In the text it is said that during a drinking feast or a banquet, at King Svási's hall, “Snæfríðr served the king a goblet full of mead”<sup>281</sup> („Snæfríðr

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<sup>276</sup> *Bósa saga ok Herrauð*, in *Fornaldar sögur Nordurlanda: 2 [Fornaldarsögur Norðurlanda]*, ed. by Guðni Jónsson, Bjarni Vilhjálmsson, [[https://heimskringla.no/wiki/B%C3%B3sa\\_saga\\_ok\\_Herrau%C3%B0s](https://heimskringla.no/wiki/B%C3%B3sa_saga_ok_Herrau%C3%B0s)] accessed 25.11.2021.

<sup>277</sup> Pálsson, Edwards, (trans.), *Seven Viking Romances*, p. 210.

<sup>278</sup> *The Saga of the Volsungs [Völsunga saga]*, ed. and trans. by R. G. Finch, p. 27.

<sup>279</sup> *The Saga of the Volsungs [Völsunga saga]*, ed. and trans. by R. G. Finch, p. 27.

<sup>280</sup> Another instance is *Ynglinga saga* ch. 37, in Snorri Sturluson, *Heimskringla I*, ed. by Bjarni Aðalbjarnarson, pp. 67-68.

<sup>281</sup> Snorri Sturluson. *Heimskringla*, trans. by A. Finlay and A. Faulkes, p. 73.

byrjaði konungi ker fullt mjaðar“).<sup>282</sup> Thus, the princess offers to the king a welcoming drink, though not ale. The king Haraldr inn hárfagri, infatuated of Snæfríðr, then wanted to possess the girl that same night, however King Svási objected, saying that, if he wanted his daughter, he would first have to marry her. The king then, “betrothed himself to Snæfríðr and married her and loved her so madly that his kingdom and all his duties he then neglected”<sup>283</sup> („festi Snæfríði ok fekk ok unni svá með ærslum, at ríki sitt ok allt þat, er honum byrjaði, þá fyrir lét hann“).<sup>284</sup> The same episode is reported in the third chapter of *Ágrip af Nóregs konungasögum*.<sup>285</sup> The passage says, “there Snjófríðr stood up, Svási’s daughter, the most beautiful of women and offered the king a cup full of mead. He took it and with it her hand.”<sup>286</sup> („Stóð þar upp Snjófríð, dóttir Svása, kvenna vænust, ok byrjaði ker mjaðar fullt konunginum, ok hann tók allt saman ok hǫnd hennar“). The drink might have been a magical potion which has bewitched the king, so he would have fallen in love with Snæfríðr, and then married her. This explication would justify the words which describe Haraldr inn hárfagri so madly in love with the princess to neglect his duties as king. Besides, the beverage served is not ale, but mead. Contrarily to beer, which could have been quite easily brewed in Norway due to the local availability of the ingredients, the honey used to make mead had to be imported from southern regions. The fact that mead is served at King Svási’s feast gives prestige to his drinking hall and remarks the prosperity of his kingdom.

As I declared above, in this subchapter I shall also investigate the use of ale when performing rites of passage, in the so-called “ale-rituals”. The rites of passage are rites which mark a transition, a change of state, e.g., birth, marriage, reaching adulthood, funeral, inheritance, etc. All these ritual ceremonies were celebrated with a drinking toast, generally with ale. As marriage constitutes an important moment in women’s life, characterised by a change of legal status, from being a daughter to become a wife and the lady of the household, I shall start my inquiry on the rites of passage on marriage and the expression *drekka brúðlaup* (to drink the wedding toast). In *Málsháttakvæði* stanza 25, line 2, it is stated that, “women were chosen at

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<sup>282</sup> Snorri Sturluson. *Heimskringla I*, ed. by Bjarni Aðalbjarnarson, p. 126.

<sup>283</sup> Snorri Sturluson. *Heimskringla*, trans. by A. Finlay and A. Faulkes, p. 73.

<sup>284</sup> Snorri Sturluson. *Heimskringla I*, ed. by Bjarni Aðalbjarnarson, p. 126.

<sup>285</sup> *Ágrip af Nóregs konungasögum* was extensively used as historical sources by Snorri for compiling his *Heimskringla* (Snorri Sturluson. *Heimskringla*, trans. by A. Finlay and A. Faulkes, p. xii).

<sup>286</sup> *Ágrip af Nóregs konungasögum*, ed. and trans. by M. J. Driscoll, pp. 4-6.

drinking parties”<sup>287</sup> („fljóðin”<sup>288</sup> verða at öldrum kørin“),<sup>289</sup> implying that drinking parties were the social gatherings where generally brides were chosen. Moreover, the word *öldrum* is linked to *öl* (ale) and it may indicate that in those circumstance women participated to those parties and to some extents were associated to “ale”.

The reference to the wedding toast expressed by *drekka brúðlaup* and *drekka festaröl* (drinking the betrothal ale)<sup>290</sup> has been identified in three sagas, *Hálfðanar saga Eysteinsonar*, *Hrólfs saga kraka ok kappa hans* and *Hrólfs saga Gautrekssonar*. In the seventh chapter of *Hrólfs saga kraka ok kappa hans*, the King Helgi, Hrolf’s father, is travelling to Saxland to meet Queen Olof. What makes her character special is that she dresses with coat of mail, wears helmet and carries sword and shield, as she would be a warrior king. Besides she is determined to rule her kingdom without a husband, however King Helgi wants to marry her because she, “would be the best match at that time in the Nordic countries”<sup>291</sup> („sú væri beztr kostur í þann tíma á Norðrlöndum“).<sup>292</sup> The two are portrayed drinking together and enjoying the feast, “King Helgi arrives at the feast and had himself placed in the high seat beside the queen. They both drink together throughout the evening”<sup>293</sup> („Helgi konungr kemr nú til veizlunnar ok skipar hásæti hjá drottningu, drekka nú bæði samt um kveldit“).<sup>294</sup> The king then proposes to Queen Olof, “I want us to drink our wedding toast this evening”<sup>295</sup> („ek vil, at vit drekkum brúllaup okkart í kveld“).<sup>296</sup>

*Drekka brúllaup* appears also in the second chapter of *Hrólfs saga Gautrekssonar*. In the text it is said that King Gautrek “got ready to go back home with Ingibjorg, his bride to be, for he wanted to celebrate their wedding in Gotland”<sup>297</sup> („býst hann til heimferðar með Ingibjörgu, kvánarefni sitt, því at hann vildi heima í Gautlandi drekka brúðlaup sitt“).<sup>298</sup> However, as the

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<sup>287</sup> “Anonymous, *Málsháttakvæði*”, ed. by R. Frank [Skaldic Poetry of the Scandinavian Middle Ages :: [Málsháttakvæði — Anon MhkvIII](#)] accessed 25.10.2021.

<sup>288</sup> Zoëga 2016: 142, *fljóð*= poet. *Woman*.

<sup>289</sup> “Anonymous, *Málsháttakvæði*”, ed. by R. Frank [Skaldic Poetry of the Scandinavian Middle Ages :: [Málsháttakvæði — Anon MhkvIII](#)] accessed 25.10.2021.

<sup>290</sup> Zoëga, *A Concise Dictionary of Old Icelandic*, p. 136.

<sup>291</sup> My translation.

<sup>292</sup> *Hrólfs saga kraka ok kappa hans*, in *Fornaldar sögur Nordurlanda: 2*, ed. by Guðni Jónsson, Bjarni Vilhjálmsson, [[https://heimskringla.no/wiki/Hr%C3%B3lfs\\_saga\\_kraka\\_ok\\_kappa\\_hans](https://heimskringla.no/wiki/Hr%C3%B3lfs_saga_kraka_ok_kappa_hans)] accessed 25.11.2021.

<sup>293</sup> My translation.

<sup>294</sup> *Hrólfs saga kraka ok kappa hans*, in *Fornaldar sögur Nordurlanda: 2*, ed. by Guðni Jónsson, Bjarni Vilhjálmsson, [[https://heimskringla.no/wiki/Hr%C3%B3lfs\\_saga\\_kraka\\_ok\\_kappa\\_hans](https://heimskringla.no/wiki/Hr%C3%B3lfs_saga_kraka_ok_kappa_hans)] accessed 25.11.2021.

<sup>295</sup> My translation.

<sup>296</sup> *Hrólfs saga kraka ok kappa hans*, in *Fornaldar sögur Nordurlanda: 2*, ed. by Guðni Jónsson, Bjarni Vilhjálmsson, [[https://heimskringla.no/wiki/Hr%C3%B3lfs\\_saga\\_kraka\\_ok\\_kappa\\_hans](https://heimskringla.no/wiki/Hr%C3%B3lfs_saga_kraka_ok_kappa_hans)] accessed 25.11.2021.

<sup>297</sup> *Hrólfs saga Gautrekssonar*, in Pálsson, Edwards (trans.), *Hrolf Gautreksson: A Viking Romance*, p. 29.

<sup>298</sup> *Hrólfs saga Gautrekssonar*, in *Fornaldar sögur Nordurlanda: 3*, ed. by Guðni Jónsson, Bjarni Vilhjálmsson, [[https://heimskringla.no/wiki/Hr%C3%B3lfs\\_saga\\_Gautrekssonar](https://heimskringla.no/wiki/Hr%C3%B3lfs_saga_Gautrekssonar)] accessed 25.11.2021.



passage continues, “he drank the wedding toast to Ingibjorg in the strongest beer there was”<sup>299</sup> („drekkr hann enn it sterkasta festaröl til Ingibjargar“),<sup>300</sup> the text suggests that only the king drinks the wedding toast, whereas Ingibjorg inactively participates as the person the toast is dedicated to. Ingibjorg does not cover an active role in the celebration of her wedding. On the contrary, the “ale of the runes” (*qlrunar*) which Brynhildr offers to Sigurðr, may also be interpreted as “betrothal ale” (*festarql*).<sup>301</sup> In the passage (*Völsunga saga* chapter 21) they are described “drinking together” („ok drekkum bæði saman“),<sup>302</sup>.

The third occurrence of *drekka brúðlaup* comes from *Hálfðanar saga Eysteinsonar*, chapter 6, and it portrays the marriage between Ingigerð, daughter of King Hergeirr of Aldeigjuborg, and the jarl Úlkel who ruled over Álaborg. Their wedding ceremony is described in these terms,

„Eptir þetta gifti konungur Úlkatli Ingigerði ok gaf honum jarlsnafn ok Álaborg til forráða ok þat ríki, sem þar lá til, ok var þá drukkit brúllaup þeira.“<sup>303</sup>

English translation:

“So the king gave Ingigerd in marriage to Ulkel, then bestowed on him the title of earl, to rule over Alaborg and the earldom that went with him. They celebrated the wedding.”<sup>304</sup>

To conclude the section regarding “ale-rituals”, I wish to discuss the ritual toast in memory of the deceased (*drekka erfi*)<sup>305</sup> that was drunk when celebrating the funeral ceremony. Death, as a rite of passage, was sanctified by “ale”, and a funeral toast was always dedicated to the dead with the ale brewed for the occasion. The literary material investigated has not shown any episodes depicting a funeral ceremony in memory of a woman, however a funeral toast for a woman is mentioned in *Laxdæla saga*, chapter 7, when it is said that a funeral toast was raised

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<sup>299</sup> *Hrólfs saga Gautrekssonar*, in Pálsson, Edwards (trans.), *Hrolf Gautreksson: A Viking Romance*, p. 29.

<sup>300</sup> *Hrólfs saga Gautrekssonar*, in *Fornaldar sögur Nordurlanda: 3*, ed. by Guðni Jónsson, Bjarni Vilhjálmsson, [[https://heimskringla.no/wiki/Hr%C3%B3lfs\\_saga\\_Gautrekssonar](https://heimskringla.no/wiki/Hr%C3%B3lfs_saga_Gautrekssonar)] accessed 25.11.2021.

<sup>301</sup> Jóhanna Katrín Friðriksdóttir, *Valkyrie: The Women of the Viking World*, p. 142.

<sup>302</sup> *The Saga of the Volsungs [Völsunga saga]*, ed. and trans. by R. G. Finch, p. 35.

<sup>303</sup> *Hálfðanar saga Eysteinsonar*, in *Fornaldar sögur Nordurlanda: 3*, ed. by Guðni Jónsson, Bjarni Vilhjálmsson, [[https://heimskringla.no/wiki/H%C3%A1lfðanar\\_saga\\_Eysteinsonar](https://heimskringla.no/wiki/H%C3%A1lfðanar_saga_Eysteinsonar)] accessed 25.11.2021.

<sup>304</sup> Pálsson, Edwards, (trans.), *Seven Viking Romances*, pp. 176-177.

<sup>305</sup> Kjesrud, “The Meaning of Ale”, p. 160.

for Unnr the Deep-Minded,<sup>306</sup> “they now drank together Olaf’s wedding and Unn’s funeral toasts”<sup>307</sup> („Var nú drukkið allt saman, brullaup Ólafs og erfi Unnar“).<sup>308</sup>

#### 5.4. Women Drinking Ale and Taking Part in Drinking Feasts: „Sé hérna, frú, ok drekk til hálfis við mik“

The cross-cultural work *Alcohol, Gender and Culture*, edited by Dimitra Gefou-Madianou,<sup>309</sup> gathers a series of social-anthropological studies about aspects of alcohol use in different Euro-Mediterranean cultural settings.<sup>310</sup> Although these researches have been conducted in reference to the early nineties of the twentieth century, and therefore referred to a completely different historical and social context from the one considered in this thesis, some observations and considerations can be used as tools for the analysis of the Old Norse literary material. In the introduction Gefou-Madianou discusses female homosocial gatherings highlighting that the drink, in these occasions, is not very important, what counts is the creation of strong bonds and an atmosphere of conviviality.<sup>311</sup> Besides, these gatherings have a productive feature, in contrast to unproductive/anti-productive all-male drinking gatherings, because women at the same time are busy embroidering, crocheting, needle pointing, or preparing or selling foods, agricultural or other goods. Gefou-Madianou also adds that «in relation to alcohol consumption, it seems that for women’s same-sex gatherings the drinking of alcohol is not of central concern».<sup>312</sup>

This being said, homosocial female gatherings are not often depicted in Old Norse literary production, if compared to its male counterparts. In the thirteenth stanza of *Haraldskvæði* (*Hrafnsmál*), the text suggests that the ladies-in-waiting of the Danish princess Ragnhildr inn Ríka Eiríksdóttir are used to gather and drink together while chatting,

„13. Annat skulu þær eiga, ambáttir Ragnhildar,  
dísir dramblátar, at drykkjumólum<sup>313</sup>,  
an ér séð hergaupur, es Haraldr hafi

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<sup>306</sup> Jóhanna Katrín Friðriksdóttir, *Valkyrie: The Women of the Viking World*, p. 172.

<sup>307</sup> My translation.

<sup>308</sup> *Laxdæla saga. Halldórs þættir Snorrasonar. Stúfs þáttur*, ed. by Einar Ól. Sveinsson, p. 13.

<sup>309</sup> Gefou-Madianou, Dimitra (ed.), *Alcohol, Gender and Culture*, (London: Routledge, 1992).

<sup>310</sup> Gefou-Madianou, *Alcohol, Gender and Culture*, pp. 1-7.

<sup>311</sup> Gefou-Madianou, *Alcohol, Gender and Culture*, p. 15.

<sup>312</sup> Gefou-Madianou, *Alcohol, Gender and Culture*, p. 15.

<sup>313</sup> *Drykkjumólum* = chatter over drink, breakfast.

sveltar valdreyra\*, en verar þeira bræði.“<sup>314</sup>

English translation:

“They shall have other things, Ragnhildr’s ladies-in-waiting, haughty women, for chatter over drink, than that you should see war-lynxes [WOLVES] which Haraldr has starved of the blood of the slain, while their men-folk feed [the wolves].<sup>315</sup>

The conviviality around alcohol, so common in homosocial male gatherings, is just alluded in the passage, and an almost reproachful tone emerges towards Ragnhildr’s ladies-in-waiting, described also as “haughty” (*dramblátar*), because they are too engaged in drinking and chatting together, rather than „an ér séð hergaupur, es Haraldr hafi sveltar valdreyra, en verar þeira bræði“.<sup>316</sup> Besides, *drykkjumólum* defines the activity of chatter over drink, therefore implying that ladies-in-waiting were affected by some form of drunkenness. Unfortunately, the text does not specify nor the nature of the drink, whether alcoholic or not, neither the context of the drinking. Also, it does not specify whether the princess takes part to these gathering or if she is excluded.

The most significant instance of a female character enjoying a drinking feast is probably the episode concerning Bolfriana. We have already encountered Bolfriana when discussing the ritual characteristics of the “lady with a mead cup”. If at the beginning of the feast Bolfriana is behaving like the lady of the house, carrying around the cup and serving the guests, afterwards, she is invited by her husband to drink with him,

„Frú Bolfriana tekr nú borðkerit ok skenkir hertoganum. Hann tekr nú við kerinu ok drekk til Bolfrinna ok mælti: „Sé herna, frú, ok drekk til hálfis við mik.“

Hún tekr við skálinni ok drekk af allt. Þetta kveld lætr hertoginn hana drekka til hálfis við sik, ok áðr en létti, var Bolfriana drukkin, svá at hún sofnaði fast.“<sup>317</sup>

English translation:

“Lady Bolfriana takes then the drinking vessel and serves the duke. He now grabs the vessel and drinking in Bolfriana’s honour says: “Be here, lady, and drink half with me.” She takes the bowl and drink everything. That evening the duke made

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<sup>314</sup> “*Haraldskvæði (Hrafnsmál)*”, ed. by R. D. Fulk, in Whaley, Diana (ed.), p. 107.

<sup>315</sup> “*Haraldskvæði (Hrafnsmál)*”, ed. by R. D. Fulk, in Whaley, Diana (ed.), p. 107.

<sup>316</sup> “*Haraldskvæði (Hrafnsmál)*”, ed. by R. D. Fulk, in Whaley, Diana (ed.), p. 107.

<sup>317</sup> *Þiðreks saga af Bern II*, ed. by Guðni Jónsson, p. 150.

her drink half of his part, and before she was relieved, Bolfriana was drunk, so that she fell asleep.”<sup>318</sup>

Bolfriana, however, drinks too much and gets drunk (*drukkin*). I would like to point out that her husband’s toast in her honour, and the act of sharing the alcoholic drink from the same cup may be a reminiscence of the ritual of the wedding toast. Thus, the duke’s drinking invitation might be a sign of his commitment towards his wife, in opposition to Bolfriana’s cheating with the jarl Íron. The negative representation of Bolfriana as a woman who does not respect the marriage bond is worsened by the fact that she gets drunk, and therefore does not have control on her behaviours. If confronted with the words “drekka karlmannliga” (drink like a man), in *Flóamanna saga*, that the slave Gíparr addresses to Kolr to provoke his manliness,<sup>319</sup> Bolfriana’s heavy drinking might be interpreted as an attempt of appropriation of a behaviour which are generally expected from men.

Also, in *Völundarkviða* there is a case of a woman who falls asleep because of drunkenness. In stanza 28, it is said that Volundr made his wife Bodvild drunk,

„Bar hann hana bióri, þvíat hann betr kunni,  
Svá at hon í sessi um sofnaði.  
‘Nú hefi ec hefnt harma minna,  
Allra nema einna, íviðgiarnra.’<sup>320</sup>

English translation:

“28. He overcame her with beer, because he was cleverer,  
So that on the couch she fell asleep.  
“Now I have avenged my sorrow,  
All except one of the wicked injuries!”<sup>321</sup>

Besides, a Viking drinking custom mentioned in chapter 37 of the *Ynglinga saga* testifies that female participation in drinking feasts was required. The cited “law” establishes that,

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<sup>318</sup> My translation.

<sup>319</sup> Evans, *Men and Masculinities in the sagas of Icelanders*, p. 45.

<sup>320</sup> *Die Lieder des Codex Regius nebst verwandten Denkmälern*, ed. by Neckel, Kuhn, p. 121.

<sup>321</sup> *The Poetic Edda*, trans. by C. Larrington, p. 102.

at drekka skyldi á kveldum tvímenning, hvárr sér, karlmaðr ok kona, svá sem ynnisk, en þeir sér, er fleiri væri saman. En þat váru víkinga lög, þótt þeir væri at veizlum, at drekka sveitardrykkju.<sup>322</sup>

English translation:

“people should drink in pairs in the evening, each man with a woman, as far as numbers allowed, and those left over drank singly. But it was the law of the Vikings for all the company to drink together when they were at banquets”.<sup>323</sup>

The law is contested by Hildiguðr when she is asked by King Hjörvarðr to sit with him and drink together. Hildiguðr is reluctant to accept the invitation because “it was not custom of the Vikings to drink in pairs with women” („ekki víkinga sið at drekka hjá konum tvímenning“), which in a sense is a contradiction of the law itself as it is said „at drekka skyldi á kveldum tvímenning“.<sup>324</sup> Finally, Hildiguðr accepts and, “sat beside him and they drank together and talked a great deal during the evening”<sup>325</sup> („settisk hjá honum, ok drukku þau bæði saman ok tóluðu mart um kveldit.“)<sup>326</sup>. The day after, King Hjörvarðr talks to King Granmarr, betrothes himself to Hildiguðr, and eventually they get married. This passage is particularly interesting from a sociological point of view because it openly refers to drinking customs in use among the Vikings in a non-religious context. We cannot demonstrate for certain that Snorri did not add Hildiguðr and King Granmarr’s drinking scene just to please his audience’s taste for courtly narrative themes – i.e., a lady should always entertain the lord/lover – however, when Snorri composed the *Heimskringla*, the courtly literature was only at its dawn in Iceland.

Finally, there are also some instances in which women are participating in banquets although not openly described as drinkers is just presumed.<sup>327</sup> The two cases I considered have both a

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<sup>322</sup> Snorri Sturluson, *Heimskringla I*, ed. by Bjarni Aðalbjarnarson, pp. 67-68.

<sup>323</sup> Snorri Sturluson, *Heimskringla, Heimskringla: Vol. 1: The beginnings to Olaf Tryggvason*, trans. by A. Finlay and A. Faulkes, p. 38.

<sup>324</sup> Hildiguðr perhaps means that the guests are supposed to celebrate all together and not in pair with women, since they are participating at a banquet.

<sup>325</sup> Snorri Sturluson, *Heimskringla, Heimskringla: Vol. 1: The beginnings to Olaf Tryggvason*, trans. by A. Finlay and A. Faulkes, p. 38.

<sup>326</sup> Snorri Sturluson, *Heimskringla I*, ed. by Bjarni Aðalbjarnarson, p. 68

<sup>327</sup> Cf. other occurrences in: *Ynglinga saga* ch. 21, „Hann sat opt við drykkju lengi um kveldum. Álfr konungr gekk opt snemma at sofa. Bera drónning sa topt á kveldum, ok hlóluðu þau Yngvi sín í millum“, Snorri Sturluson, *Heimskringla I*, ed. by Bjarni Aðalbjarnarson, p. 41, (“He often sat drinking late into the evenings. King Álfr often went to bed early. Queen Bera often sat up in the evenings and she and Yngvi chatted together), Snorri Sturluson, *Heimskringla, Heimskringla: Vol. 1: The beginnings to Olaf Tryggvason*, trans. by A. Finlay and A. Faulkes, p. 23; *Bósa saga ok Herrauðs* ch. 12, „hefir skipan á, hvert öl fyrst skal ganga, ok segir byrlurum fyrir, hversu ákaft þeir skulu skenkja. Sagði hann, at þat varðar mestu, at menn verði it fyrsta kveld sem drukknastir, því at þar eimir lengst af“, *Bósa saga ok Herrauðs*, in *Fornaldar sögur Nordurlanda: 2*, ed. by Guðni Jónsson, Bjarni

mythological subject matter as they are excerpts from *Lókasenna* and *Skáldskaparmál*. In the first chapter of *Lókasenna*, the gods *Æsir* are participating to a banquet in which *Ægir* is serving the beer he brewed after he got back his kettle. The excerpt is written in prose and names several gods, among which some female deities: Frigg, Sif, Iðunn, Skaði, and Freyja.

Ægir, er qðro nafni hét Gymir, hann hafði búit ásum ql, þá er hann hafði fengit ketil enn micla, sem nú er sagt. Til þeirar veizlo kom Óðinn ok Frigg kona hans. Þórr kom eigi, þvíat hann var í austrvegi. Sif var þar, kona Þórs, Bragi oc Iðunn, kona hans. Týr var þar, hann var einhendr . Fenrisúlfr sleit hqnd af hánom, þá er hann var bundinn. Þar var Njorðr oc kona hans Scaði, Freyr ok Freyja, Víðarr, son Óðins. Loki var þar, oc þiónustomenn Freys, Byggvir ok Beyla. Mart var þar ása oc álfa. Ægir átti tvá þiónustomenn — Fimafengr oc Eldir. Þar var lýsigull haft fyrir eldzliós. Sjálft barsc þar ql.<sup>328</sup>

English translation:

Ægir, who is also called Gymir, had brewed ale for the *Æsir*, when he got the great cauldron which has just been told about. To this feast came Odin and Frigg, his wife. Thor did not come, because he was away in the east. Sif was there, Thor's wife, Bragi, and Idunn, his wife. Tyr was there; he was one-handed, for Fenrir the wolf tore his hand off when he was bound. There was Niord and his wife, Skadi, Freyr and Freyia, Vidar, son of Odin; Loki was there and the servants of Freyr, Byggvir and Beyla. Many other *Æsir* and elves were there. Ægir had two servants, Fimafeng and Eldir. Shining gold was used instead of firelight; ale went round by itself; that was a great place of peace. People praised the excellence of Ægir's servers. Loki could not bear to hear that, and he killed Fimafeng. Then the *Æsir* shook their shields and shrieked at Loki and chased him out to the woods, and they set to drinking.<sup>329</sup>

Two interesting characteristics emerge from the text. The first one is the participation of female characters to the feast, besides their names are also explicitly specified, the second is that the

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Vilhjálmsson, [https://heimskringla.no/wiki/B%C3%B3sa\_saga\_ok\_Herrau%C3%B0s] accessed 25.11.2021, (“It was he who decided what ale should be served first, and told the cup-bearers how generously they were to serve the drinks. He said it was most important that the guests should get as drunk as possible on the first night of the feast, since in that way they would stay drunk much longer”), Pálsson, Edwards, (trans.), *Seven Viking Romances*, pp. 219-220.

<sup>328</sup> *Die Lieder des Codex Regius nebst verwandten Denkmälern*, ed. by Neckel, Kuhn, p. 96.

<sup>329</sup> *The Poetic Edda: Edda Sæmundar Hinns Froða*, trans. by Benjamin Thorpe, p. 145.

ale (*ǫl*) served itself,<sup>330</sup> meaning that no woman was in charge of serving the guests, however two servants are mentioned, Fimafeng and Eldir. Similarly, the first chapter of *Skáldskaparmál* portrays a drinking-party to which both Æsir and Ásynjur participate: there were Þórr, Njörðr, Freyr, Týr, Heimdallr, Bragi, Viðarr, Váli, Ullr, Hœnir, Forseti, and Loki for the Æsir; Frigg, Freyia, Gefiun, Idunn, Gerd, Sigyn, Fulla, and Nanna for the Ásynjur. Snorri accounts that, “there was also strong mead there and great quantities were drunk”,<sup>331</sup> „Þar var ok áfenginn mjöðr ok mjök drukkit“<sup>332</sup> with the possible implication that also the Ásynjur have consumed the mead.

## 5.5. Analysis of the Runic Inscriptions

### 5.5.1. Alu Inscriptions

The etymology of the word **alu** has been extensively debated in the last century and a half, and still runologists have not found a conclusive explanation. In his book *Runes and Germanic Linguistics* Antonsen provides a summary of the three main theories: the first theory suggests that **alu** means “protection, defense”, from the Old English *ealgian* “defend” and Gothic *alhs* “temple”; the second would attribute a correlation with Old English *ealu* and Old Norse *ǫl* “ale, beer”; the third would be related to Hittite *alwanza-* “magic”. According to Antonsen, the first one must be rejected because of phonological reasons, the second does not explain a possible semantic link, while the third, which implies that **alu** was a cult-word, seems the most likely acceptable etymological derivation.<sup>333</sup> As argued by Polomé, the word denoting the beverage “ale/beer” may have derived from the sphere of the ecstatic state that is associated with rituals and religious celebrations.<sup>334</sup> Nevertheless, Polomé’s argumentation has been strongly criticised by Mees,<sup>335</sup> who indeed has associated the origin of the **alu** word to *hale*, which belongs to the same semantic sphere of “health” and “luck”, and is the root of the word *holy*, Old English *hālig*.<sup>336</sup>

<sup>330</sup> *Sjálfr*= self, *bera*= to bear, to carry.

<sup>331</sup> *The Poetic Edda*, trans. by C. Larrington, p. 80.

<sup>332</sup> Snorri Sturluson, *Edda. Skáldskaparmál*, ed. by A. Faulkes, p. 1.

<sup>333</sup> Antonsen, *Runes and Germanic Linguistics*, pp. 197-199.

<sup>334</sup> Polomé, “Notes sur le vocabulaire religieux du germanique I: Runique *alu*”, p. 55; Antonsen, *Runes and Germanic Linguistics*, pp.198-199. See also Mees, “Alu and Hale”, pp. 107-131.

<sup>335</sup> Mees, “Alu and Hale”, pp. 111-116.

<sup>336</sup> Mees, “Alu and Hale”, pp. 116-118.

From a statistically point of view, three of the six **alu** inscriptions have been identified as female gendered. The first object, the Fosse Bronze Fitting (S669402, N KJ48), is a fitting belonging to a bronze buckle, and has been archaeologically gendered based on the identification of the burial as a female grave. The inscription carved on the fitting, **kaa alu**, has been interpreted as “kaa, ale”, and Lisbeth Imer proposes, it may be translated as “... I protect (?)”, thus being **alu** a protective formulaic word.<sup>337</sup> As suggested by Kjesrud, the inscription “could derive from an analogous ale-ritual, if not necessary from a childbirth, maybe from another transitional marking”.<sup>338</sup> The other two items are the Horvnes comb and the Setre comb, both female gendered. The Horvnes comb, discovered in an Iron Age female grave, carries the inscription **aallu [u]**, interpreted as “ale” or a doubling of the word *alu*, therefore translated as “Ale ale!”.<sup>339</sup> The Setre comb was found in a cave in Hordaland, and from an archaeological point of view may be considered a single find. Its gendering as female object is due to the fact that combs are generally associated to female graves rather than male, however in recent years a more fluid approach to the study of grave goods has highlighted that combs can also be found in male graves, being objects used likewise by men and women.<sup>340</sup> The reading of the Setre comb has been intensely debated, and several readings have been proposed. Krause and Jankuhn have suggested:

**hAl mAR mAuna AļunąAlunąna**

*ha[i]l māR mauna a(l)u Nanna alu Nanna*

“hail – maid of maidens – protection – Nanna – protection – Nanna”<sup>341</sup>

In this interpretation the word *alu* is intended as a formulaic word meaning “protection”. A different explanation is given by Bernard Mees, who reads **mAuna** as a *heiti* for Nanna, and claims that «reading **alu** as “ale” makes little sense in connection with Nanna and neither quite do readings such as “protection” or “all”. [...] a better translation might instead be something akin to “blessed”, “honoured” or “holy”».<sup>342</sup>

**hAl mAR mAuna** (4)

**AļunąAlunąna** (7)

<sup>337</sup> Kjesrud, “The Meaning of Ale”, p. 162.

<sup>338</sup> Kjesrud, “The Meaning of Ale”, p. 162.

<sup>339</sup> Kjesrud, “The Meaning of Ale”, p. 163.

<sup>340</sup> See Marianne Moen’s PhD dissertation on gendering graves in Østfold region based on grave goods (Moen, *Challenging Gender: A reconsideration of gender in the Viking Age using the mortuary landscape*, PhD Thesis, 2019).

<sup>341</sup> Kjesrud, “The Meaning of Ale”, p. 163.

<sup>342</sup> Mees, “Alu and Hale”, pp. 119-121.



*Hāl maR Mauna!* (4)

*Alu Na! Alu Nan(n)a!* (7)

“Hale for me, Mourner!  
Alu Na! Alu Nanna!”<sup>343</sup>

The **alu** inscriptions on the Elgesem stone, the Førde fishing weight and the Hå bone fragment have not been gendered because of the lack of an archaeological context. The Elgesem stone is the only **alu** inscription that occurs on a runic stone,<sup>344</sup> while generally **alu** is found in small objects, especially in bracteates. Thus, the interpretation of **alu** as “ale” on the Elgesem stone is dubious, but it may still be correlated to the ritual sphere of a funerary celebration. The inscription **aluko** on the Førde fishing weight does not offer much information. Since it was not found in a grave context, it is impossible to give an interpretation based on other correlated objects. If one takes into consideration the practical function of the fishing weight, it may sound logical to interpret the inscription as an omen of good luck. The last **alu** inscription I wish to present is carved on a bone fragment found in a grave context in Ødemotland (Hå, Rogaland), which dates to the early Migration Period:<sup>345</sup>

**Ūha, aure ab ykwinu, ai-kund þīnū wū: wēa alu þā-k wiu hnūf, þī-t ī auke  
kunnu wī!**

“The young [woman], perished from the earth (= is dead), reborn for eternity in your sanctuary (= in heaven). The holy beer I received, I consecrate the horn, so that it (= the beer) may increase therein in the known sanctuary”

The inscription has been interpreted by Ottar Grønvik in relation to the «ritual of receiving “the holy ale”»<sup>346</sup>, however the inscription alludes to a funeral ritual performed in memory of a young woman. The funeral ceremony, as wedding and childbirth rituals, marks the transition from a stage in a person’s life to another, thus their classification as transitional rituals. Within the Germanic societies these passages of state might have been celebrated by serving and toasting with a ceremonial ale, hence the definition of “ale-rituals”.<sup>347</sup>

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<sup>343</sup> Mees, “Alu and Hale”, pp. 120-121.

<sup>344</sup> According to Antonsen, who excludes a possible reading of **alu** as a single word in the Årstad Stone. Instead, he reads **saralu** as the feminine name *Sar<sup>a</sup>lū* (Antonsen, *Runes and Germanic Linguistics*, p. 157). On the contrary, both Bugge and Krause interprets **alu** as “ale”, relating the word to “some kind of magic in the grave” (Kjesrud, “The Meaning of Ale”, pp. 164-167).

<sup>345</sup> Kjesrud, “The Meaning of Ale”, p. 163.

<sup>346</sup> Kjesrud, “The Meaning of Ale”, p. 163.

<sup>347</sup> Kjesrud, “The Meaning of Ale”, p. 164.

### 5.5.2. Drinking Vessels and other Grave Goods with Runic Inscriptions

This section deals with objects, tools or other grave goods that could have been used to serve or brew ale, and on which a runic inscription has been carved. After a research on the online database RuneS-DB, I identified eleven objects corresponding to my requirements, thus there are: a wooden bucket, a kettle, a bowl, four drinking horns, three ladles and one spoon handle. Of these eleven, only four are gendered, two as female and two as male, meaning that the gendering of the others is still open to possible interpretations. All the inscriptions are written in younger *futhark* and dated to the Viking Age or early Middle Ages. The association of some of these objects to the act of brewing, serving, or drinking ale is not proved.

Some of the inscriptions consist in the owner's name as it is the case for the Oseberg wooden bucket, the Bergen Spoon Handle and the Herrem drinking horn, or the carver's name, e.g., the drinking horn from Hjørundfjord Prestegård or the Gokstad kettle. Inscriptions containing the owner's name can provide some kind of evidence about the usage of the object, mostly the gender of the owner. For instance, we know that the wooden bucket found in the Oseberg ship burial and the spoon handle from Bergen were both properties of women called Sigríðr: **a sikriR** = "Sigríðr owns" (Oseberg wooden bucket); **sigriþ a mek** = "Sigríðr owns me" (Bergen spoon handle). Besides, Inga, son of Ásmundr, was the owner of the Herrem drinking horn:

(A) **inga**

(B) **...s ÷ asmunda=r÷so=n ÷ a mik**

Transliterated in:

(A) *Inga*

(B) *...s Ásmundar son á mik*

It is worthy to note that two of the four drinking horns have been male gendered, while the other two have not been gendered. This data is in contrast with the information obtained by the archaeological inquiry, according to which drinking horns are more common grave goods in female graves, rather than male. In addition, both the inscriptions on the Hamarøy drinking horn and the ox horn from Erga are non-lexical. On the Hamarøy drinking horn we read indeed **rooo**, while on the Erga horn the carver has cut a *futhark* rune row **fuporkhniasl-...**, which is also incomplete. The last group of runic inscriptions is constituted by three metal ladles found at Trå (Granvin, in Voss municipality). The inscription N 282 is impossible to decipher, whereas N 284 is quite readable, but it is difficult to understand its meaning:

**sikat ' ... .. ni × uritar × uritar × uilki × ...**

“I do not see ... .. nor wrong, absolutely not wrong...”

More interestingly, the inscription N 283 expresses a kind of warning towards who would threaten a woman's inviolability. The interpretation of this text is quite challenging, especially because it is carved on a ladle, when one's would expect it on a runestone or another more visible object. The reference to a female figure may suggest that the owner was a woman who oversaw making and/or serving food, and according to what previously argued also ale, and therefore the admonition was meant for discouraging ill-intentioned men.

**t ou=arkar × karpir × is × kuinn×(k)... ..**

“... Bodily harm (will be) charged where woman's inviolability (is threatened).”

## 5.6. Results

From the comparative analysis of literary and runic sources, it is clear that women were involved in a series of activities which comprises ale and other alcoholic beverages. Women were represented as brewers, providers of the drink and consumers, however what is evident is that women's actions are always put in correlation with men. For instance, the ale that Signý and Geirhildr brew is for the competition requested by King Alrekr, who judges the two women based on their ability as brewers. Furthermore, all the examples in which women offer a drinking vessel containing alcohol to the guests, they always give the drink to men, like their husband, their husband's retainers or to their lover. The only example of woman serving another woman is when Grimhildr gives a magic drink to her daughter Gúðrun, however the contexts is different. If on the first case, the distribution of the cup is part of a ceremonial ritual, the second episode takes place in a private situation, in which no men are involved.

Ale had a fundamental symbolic role in the so-called "ale-rituals", and this function was not only addressed to men, but was also extended to women. The ale-rituals celebrates a passage of state, they mark a social change within the community. As for the sources analysed, marriage and death are the two ritual circumstances in which women are depicted in association to ale. As mentioned above, there are no instances of women's death and funerals in the literary material I analysed, in which ale is used in the ceremony for celebrating the dead woman, hence the sources do not contain episodes in which the participants drink the funeral toast (*drekka erfi*) in a woman's honour. However, this custom is documented in *Flóamanna saga* when it is

said that people “drank together Unn’s funeral honours”. The **alu** inscriptions might have performed a protective function, when the objects carrying the inscriptions were included in the dead’s grave goods, as exemplified by the bone fragment from Hå (N KJ29). Besides, the inscription on the Hå bone fragment suggests that an ale-ritual was performed during the funeral with the words, “The holy beer I received, I consecrated the horn”, and a young woman is the receiver of this ritual.

Ale was also fundamental in correlation with marriage. The survey on the literary sources has pointed out that a wedding toast was always performed to sanctify the marriage union. However, it emerges from the sources that ale was also important in other circumstances that preceded the wedding ceremony. Drinking parties and other mundane events were the perfect places where girls had the opportunity to meet their future husbands, as it is highlighted in *Málsháttakvæði*. Besides, the term *ǫldrum* suggests that the alcoholic drink privileged in this feast was ale. Furthermore, as it emerges from *Hálfs saga ok Hálfsrekka*, a woman was judged positively and deemed as a good wife if she was also able to brew good beers. If we take into consideration that ale was brewed for celebrating rites of passage, annual *blót* and other festivities, it is clear that being able of brewing ale was extremely important in a society in which rituality was based on that beverage. In this sense, therefore, the episode of the brewing competition is particularly interesting in the depiction of women’s contribution in the production of ale. In addition, the two instances of women with drunkenness are correlated to the sphere of marriage. Both Bolfriana and Bodvild get drunk in company of their husbands, however Bolfriana drinks too much during a drinking party, but she is drinking willingly while enjoying the banquet, whereas Bodvild is made drunk by her husband Volund as a form of revenge. Therefore, the conclusion that can be drawn from these two texts is that a state of drunkenness was only acceptable if also the husband was taking part in the drinking, on the contrary, women affected by alcohol without the presence of a man was judged negatively, as the stanza 13 in *Haraldskvæði (Hrafnsmál)* has shown. On the light of this interpretation, women were thus expected to drink less than men, and in those circumstances in which they did it voluntarily, as in Bolfriana’s case, there might have been an attempt of appropriation of characteristics which are generally associated with “manliness”, rather than “femaleness”.

## CHAPTER SIX: CONCLUSIONS

When combining the material analysed in Chapter Four and Five it appears clear that ale played a central role in Viking women's lives. Through the examination of the written sources, I showed how women in the Viking Age might have been involved in every facet related to the production, distribution, and consumption of ale, besides, the texts point out that in many circumstances cultural and ritual meanings were attributed to each of these aspects. I utilised the information drawn from the analysis of the archaeological sources, whose material dates to the late Iron/Viking Age, to see if the hypothesis resulting from the interpretation of the written sources were confirmed by the archaeological assemblage. The assumption that women in the Viking Age might have brewed beer, as it is suggested in the episode recorded in *Hálfs saga ok Hálfsrekka*, may be confirmed by the data provided by the occurrence of sickles, kettles, and other kitchen equipment found in female burials. This assumption would be trustworthy if we accept the possibility that ale was also produced in smaller batches in a domestic context, as I attempted to demonstrate with the experimental approach. Furthermore, the detection of sickles in female burials could indicate that women's agency was not confined to the sole act of brewing. It would be safe to presume that women attended both farming activities and, by extension, malting of the corn. Besides, the ability of brewing good beers was valued as an important characteristic that a suitor would have presumably required when looking for a bride. This aspect would be especially significant if we consider the ritual meaning that ale had within the Viking society.

The detection of drinking horns and ladles in female burials may be interpreted as an attestation of women's attendance at banquets and drinking feasts. As exhaustively discussed by Enright, high rank women were expected to perform the ritual of the cup by proffering alcohol to the guests according to a hierarchical order. Even in those circumstances in which alcohol was served in a context not involving the ceremony of the drinking vessel, its distribution had still the function of welcoming the guests, i.e., *fagnaðaröl*. The role of women in banquets was not limited to the sole distribution of alcohol. In fact, according to the sources analysed, women could have enjoyed feasts as drinkers and, as stated in a Viking law mentioned in *Ynglinga saga*, they were supposed to drink in pairs with men. In most of the episodes in which women are depicted as drinkers, there is a male character who drinks with them. Besides, only two instances record women experiencing drunkenness, Bolfriana (*Bósa saga ok Herrauð*) and

Bodvild (*Vǫlundarkviða*). The only representation of female homosocial gatherings, in which the text alludes to a group of women gathered for drinking, and who possibly are under the intoxicating effects of alcohol, is exemplified in stanza 13 of *Haraldskvæði* (*Hrafnsmál*). The manner in which the two scenes are described almost appears as the respectively authors would judge negatively women drinking without the company of men (see princess Ragnhildr's ladies-in-waiting) or getting drunk, as Bolfriana. As I suggested in subchapter "5.6 Results", the act of drinking independently from the presence of men and the resulting drunkenness, may be interpreted as an attempt to appropriate behaviour generally considered to be masculine. Therefore, it might be safe to state, that according to the sources, women could drink as long as they did it moderately. If on one hand *Bósa saga ok Herrauð* may convey a depiction of women biased by Icelandic medieval mentality, influenced by Christian tenets, on the other hand, *Haraldskvæði*, which has been dated to the ninth/tenth century, may reflect the image that Viking Age society had of women.

The ritual role of ale in association with women is exemplified by its use for celebrating rites of passage which marked the life of a woman. The literary sources examined have mostly provided evidence of ale in correlation to the wedding toast or the betrothal ale (*drekka brúðlaup* and *drekka festaröl*), while runic inscriptions have been mainly associated with funeral celebrations.

Referring to Snorri record of women's attributions, in *Skáldskaparmál* chapter 1, I would argue that Nanna Løkka's interpretation of the drinking cup as an attribute and symbol of femininity may be taken further.<sup>348</sup> In light of the data discussed in this thesis, it is reasonable to assert that in the Viking Age ale, and not the drinking vessel, might have been considered as an attribution of femininity and therefore fundamental for determining the role that women had in the Viking society.

To conclude, further investigations are still necessary for achieving a deeper understanding of women's role in Viking Age society and to define with more accuracy how they related with ale, especially from the side of the brewing activity. This dissertation provides results which are not absolute, given the limits explained in the methodology. I believe that further research and innovative perspectives based on interdisciplinarity might be beneficial for the future investigation of this subject matter.

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<sup>348</sup> Løkka, "Kvinner med drikkebeger", p. 149.

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## Web Resources

### Catalogues and Portals

<https://www.runesdb.eu/en/>

<https://www.unimus.no/portal/#/>

[https://heimskringla.no/wiki/Norr%C3%B8ne\\_kildetekster](https://heimskringla.no/wiki/Norr%C3%B8ne_kildetekster)

<https://onp.ku.dk/onp/onp.php>

## APPENDICES

### A. Table of Literary sources

NR.	KEY WORD	GENDER	NAME	NAME SAGA/POEM	GENRE	TYPE OF SOURCE	ACTION	TIME OF ACTION	DATING	PLACE OF ACTION	PLACE OF PRODUCTION
1	mjóðr	F/M	Skáldsk ch. 1 (55)	Skáldskaparmál	Prose edda	prose	banquet/ drinking mead	Mythological	1 <sup>st</sup> half 13 <sup>th</sup> century	Ásgard	Iceland
2	öl/ vin/ drykkir	F	Skáldsk ch. 31	Skáldskaparmál	Prose edda	prose	drinking	–	1 <sup>st</sup> half 13 <sup>th</sup> century	–	Iceland
3	bjórr	F	Valundr. St. 28	Völundarkviða	Poetic edda	poetic	drinking	Mythological	9 <sup>th</sup> - 10 <sup>th</sup> century	–	–
4	öl	F/M	Ls ch. 1	Lokasenna	Poetic edda	prose/ poetic	banquet	Mythological	10 <sup>th</sup> century	Ásgard	–
5	öldrum	F	Mhkv 25, line 2	Málsháttakvæði	Skaldic poem	skaldic	–	–	early 13 <sup>th</sup> century	Norway/ Northern Isles/ Iceland	–
6	drykkjumál	F	Phorn Harkv 13	Haraldskvæði (Hrafnsmál)	Skaldic poem	skaldic	drinking	–	9 <sup>th</sup> - 10 <sup>th</sup> century	Vestlandet	Norway
7	vin	F	Þiðr I ch. 214, lines 9-12	Þéttleifs þátr danska [Þiðreks saga of Bern]	Riddarasögur	prose	drinking	9 <sup>th</sup> -10 <sup>th</sup> c.	13 <sup>th</sup> - 14 <sup>th</sup> century	Northern Germany	Norway/ Iceland
8	vin	F	Þiðr II ch. 269, lines 17-19	Írons þátr jarls [Þiðreks saga of Bern]	Riddarasögur	prose	drinking	5 <sup>th</sup> -6 <sup>th</sup> century	13 <sup>th</sup> - 14 <sup>th</sup> century	Northern Germany	Norway/ Iceland
9	–	F	Þiðr II ch. 271, lines 16-17	Írons þátr jarls [Þiðreks saga of Bern]	Riddarasögur	prose	drinking	5 <sup>th</sup> -6 <sup>th</sup> century	13 <sup>th</sup> - 14 <sup>th</sup> century	Northern Germany	Norway/ Iceland
10	–	F	Þiðr II ch. 271, line 17	Írons þátr jarls [Þiðreks saga of Bern]	Riddarasögur	prose	drinking	5 <sup>th</sup> -6 <sup>th</sup> century	13 <sup>th</sup> - 14 <sup>th</sup> century	Northern Germany	Norway/ Iceland
11	–	F	Þiðr II ch. 271, line 19	Írons þátr jarls [Þiðreks saga of Bern]	Riddarasögur	prose	drinking	5 <sup>th</sup> -6 <sup>th</sup> century	13 <sup>th</sup> - 14 <sup>th</sup> century	Northern Germany	Norway/ Iceland
12	öl	F	Flóam ch.2	Flóamanna saga	Íslendingasögur	prose	drinking	–	c. 14 <sup>th</sup> century	Iceland	Iceland
13	–	F/M	Ys ch. 21	Ynglinga saga [Heimskringla]	Konungasögur	prose	drinking	Migration period	13 <sup>th</sup> century	Uppsala (Sweden)	Iceland
14	öl	F	Ys ch. 37	Ynglinga saga [Heimskringla]	Konungasögur	prose	drinking	Migration period	13 <sup>th</sup> century	Sweden (Sodermanland)	Iceland
15	öl	M	HákonG ch. 14	Hákonar saga góða [Heimskringla]	Konungasögur	prose	drinking	c. 10 <sup>th</sup> century	13 <sup>th</sup> century	Norway (Trøndelag)	Iceland
16	mjóðr	F	Harald Hárf ch. 25	Haralds saga ins hárfagra [Heimskringla]	Konungasögur	prose	drinking	c. 872-930 AD	13 <sup>th</sup> century	Norway (Rogaland /Hordaland)	Iceland
17	mjóðr	F	Ágrip ch. 3	Ágrip af Nóregskonungasögum	Konungasögur	prose	drinking	c. 872-930 AD	late 12 <sup>th</sup> century	Norway (Rogaland/ Hordaland)	Norway/ Iceland



NR.	KEY WORD	GENDER	NAME	NAME SAGA/POEM	GENRE	TYPE OF SOURCE	ACTION	TIME OF ACTION	DATING	PLACE OF ACTION	PLACE OF PRODUCTION
18	Mungátsgerð/ öl	F	HálfH ch. 1	<i>Hálfs saga ok Hálfrekkra</i>	Fornaldarsögur	prose/ skaldic	brewing	8 <sup>th</sup> century	13 <sup>th</sup> - Early 14 <sup>th</sup> century	Norway (Hordaland)	Iceland
19	drekka brúðlaup	F/M	HálfE ch. 6	<i>Hálfðanar saga Eysteinssonar</i>	Fornaldarsögur	prose	drinking	c. 9 <sup>th</sup> century	13 <sup>th</sup> -14 <sup>th</sup> century	Norway (Trøndelag)	Iceland
20	drekka brúðlaup	F/M	Hrólfr ch. 7	<i>Hrólfs saga kraka ok kappá hans</i>	Fornaldarsögur	prose	banquet	5 <sup>th</sup> - 6 <sup>th</sup> century	13 <sup>th</sup> - 15 <sup>th</sup> century	Saxland (but Helgi is Danish)	Iceland
21	drekka brúðlaup	M(?)	Hrólfr ch. 2	<i>Hrólfs saga Gautrekssonar</i>	Fornaldarsögur	prose	banquet	Migration period	13 <sup>th</sup> century	Gotland (Sweden)	Iceland
22	drekka festaröl	M	Hrólfr ch. 2	<i>Hrólfs saga Gautrekssonar</i>	Fornaldarsögur	prose	banquet	Migration period	13 <sup>th</sup> century	Gotland (Sweden)	Iceland
23	öl	F	Völs ch. 10	<i>Völsunga saga</i>	Fornaldarsögur	prose	serving poisonous ale	Migration period	13 <sup>th</sup> century	Hunland	–
24	–	F/M	Völs ch. 12	<i>Völsunga saga</i>	Fornaldarsögur	prose	drinking	Migration period	13 <sup>th</sup> century	Denmark	–
25	–	F/M	Völs ch. 15	<i>Völsunga saga</i>	Fornaldarsögur	prose	drinking	Migration period	13 <sup>th</sup> century	Denmark	–
26	bjórr	F/M	Völs ch. 21	<i>Völsunga saga</i>	Fornaldarsögur	prose/ poetic	serving ale	Migration period	13 <sup>th</sup> century	Frankland	–
27	ölrúnar	F/M	Völs ch. 21	<i>Völsunga saga</i>	Fornaldarsögur	poetic	serving ale	Migration period	13 <sup>th</sup> century	Frankland	–
28	öl	F/M	Völs ch. 25	<i>Völsunga saga</i>	Fornaldarsögur	prose	serving ale	Migration period	13 <sup>th</sup> century	Rhineland (?)	–
29	vín	F	Völs ch. 25	<i>Völsunga saga</i>	Fornaldarsögur	prose	bearing wine	Migration period	13 <sup>th</sup> century	Rhineland (?)	–
30	–	F	Völs ch. 25	<i>Völsunga saga</i>	Fornaldarsögur	prose	serving wine	Migration period	13 <sup>th</sup> century	Rhineland (?)	–
31	mjóðr	F	Völs ch. 27	<i>Völsunga saga</i>	Fornaldarsögur	prose	serving drugged drink	Migration period	13 <sup>th</sup> century	Rhineland (?)	–
32	–	F	Völs ch. 28	<i>Völsunga saga</i>	Fornaldarsögur	prose	serving drugged drink	Migration period	13 <sup>th</sup> century	Rhineland (?)	–
33	–	F	Völs ch. 28	<i>Völsunga saga</i>	Fornaldarsögur	prose	serving wine	Migration period	13 <sup>th</sup> century	Rhineland	–
34	vín	F	Völs ch. 29	<i>Völsunga saga</i>	Fornaldarsögur	prose	drinking wine	Migration period	13 <sup>th</sup> century	Rhineland	–
35	öl	F	Völs ch. 30	<i>Völsunga saga</i>	Fornaldarsögur	prose	serving drugged drink	Migration period	13 <sup>th</sup> century	Rhineland	–
36	–	F	Völs ch. 31	<i>Völsunga saga</i>	Fornaldarsögur	prose	drinking	Migration period	13 <sup>th</sup> century	Rhineland	–
37	mjóðr/ vín	F	Völs ch. 31	<i>Völsunga saga</i>	Fornaldarsögur	prose	drinking	Migration period	13 <sup>th</sup> century	Rhineland	–

NR.	KEY WORD	GENDER	NAME	NAME SAGA/POEM	GENRE	TYPE OF SOURCE	ACTION	TIME OF ACTION	DATING	PLACE OF ACTION	PLACE OF PRODUCTION
38	bjórr	F	Völs ch. 34	<i>Völsunga saga</i>	Fornaldarsögur	prose	serving/ drinking (maybe ale)	Migration period	13 <sup>th</sup> century	Rhineland	–
39	–	F	Völs ch. 35	<i>Völsunga saga</i>	Fornaldarsögur	prose	serving	Migration period	13 <sup>th</sup> century	Rhineland	–
40	–	M	Völs ch. 35	<i>Völsunga saga</i>	Fornaldarsögur	prose	drinking	Migration period	13 <sup>th</sup> century	Rhineland	–
41	–	F	Völs ch. 43	<i>Völsunga saga</i>	Fornaldarsögur	prose	serving	Migration period	13 <sup>th</sup> century	Rhineland	–
42	öl	F	Bósa ch. 7	<i>Bósa saga ok Herrauðs</i>	Fornaldarsögur	prose	serving ale	8 <sup>th</sup> century (?)	14 <sup>th</sup> century	Bjarmaland (Permian, arctic region in Northern Russia)	Iceland
43	mungát	F/M	Bósa ch. 11	<i>Bósa saga ok Herrauðs</i>	Fornaldarsögur	prose	serving ale	8 <sup>th</sup> century (?)	14 <sup>th</sup> century	Gotland (Sweden) Bjarmaland (Permian, arctic region in Northern Russia)	Iceland
44	öl	F/M	Bósa ch. 12	<i>Bósa saga ok Herrauðs</i>	Fornaldarsögur	prose	drinking	8 <sup>th</sup> century (?)	14 <sup>th</sup> century	Bjarmaland (Permian, arctic region in Northern Russia)	Iceland

## B. Table of Runic Inscriptions

NR.	KEY WORD	GENDER	SHELF MARK	NAME	TYPE OF MATERIAL	CONTEXT	DATING	REGION	MUNICIPALITY
1	alu	?	C17791, N KJ57	Elgesem stone	rune stone	grave find	160-560/70	Vestfold	Elgesem
2	alu	?	B2929, N KJ 49	Førde fishing weight	fishing weight	single find	200-600	Sogn og Fjordane	Førde
3	alu	F	S669402, N KJ48	Fosse bronze fitting	bronze buckle	burial	375/500 -460/470	Rogaland	Fosse
4	alu	?	B4384, N KJ29	Hå bone fragment	bone fragment	fragment	460/70-560/70	Rogaland	Hå
5	alu	F	T22926/1-74, A372	Horvnes comb	bone comb	fragment	6 <sup>th</sup> century	Nordland	Horvnes
6	alu	F	B8350, N KJ40	Setre comb	bone comb	single find (?)	560/70-600	Vestland	Setre
7	-	F	N 138	Oseberg wooden bucket	wooden bucket	burial	825-850	Vestfold	Oseberg
8	-	?	N 139	Gokstad kettle	kettle	burial	875-925	Vestfold	Gokstad
9	-	?	N 579	Kaupang bowl	bowl	burial	900	Vestfold	Kaupang
10	-	?	N 282	Trå ladle I	ladle	burial	900-950	Vestland	Granvin
11	-	?	N 283	Trå ladle II	ladle	burial	900-950	Vestland	Granvin
12	-	?	N 284	Trå ladle III	ladle	burial	900-950	Vestland	Granvin
13	øl	M	S3966, N 247	Skadberg stone	rune stone	burial	12 <sup>th</sup> century	Rogaland	Skadberg
14	-	F	N B385	Bergen spoon handle	spoon handle	settlement	1100-1500	Vestland	Bergen
15	-	M	N 434	Hjørundfjord Prestegård horn	drinking horn	-	1100-1500	Møre og Romsdal	Hjørundfjord Prestegård
16	-	M	N 455	Herrem drinking horn	drinking horn	-	1100-1500	Trøndelag	Herrem
17	-	?	N 538, Ma. 431	Hamarøy drinking horn	drinking horn	-	1100-1500	Nordland	Hamarøy
18	-	?	N 229	Erga ox horn	horn	single find	1100-1500	Rogaland	Erga

## C. Table of Archaeological Material

NR.	KEY WORD	GENDER	SHELF MARK	OBJECT	MATERIAL	DATING	REGION	MUNICIPALITY	FARM	STATE OF CONSERVATION	CONTEXT
1	drikkehorn	?	T6373	drinking horn fitting	bronze	Late Iron Age	Trøndelag	Nærøysund	Varøen	1 piece	indefinite
2	beslag	F	T8533	drinking horn fitting	metal	Viking Age	Trøndelag	Skaun	Børseknogn (Huseby)	fragments	grave find
3	sigd	F	T8538	sickle blade	iron	Viking Age	Trøndelag	Skaun	Børseknogn (Huseby)	fragment	grave find
4	kar	F	T21080/1	vessel	bronze	Viking Age	Trøndelag	Levanger	Gjeite	fragments	grave find
5	drikkehorn	F	T21080/7	drinking horn fitting	bronze/copper	Viking Age	Trøndelag	Levanger	Gjeite	fragments	grave find
6	drikkehorn	F	T21080/8	drinking horn fitting	bronze/copper	Viking Age	Trøndelag	Levanger	Gjeite	fragments	grave find
7	drikkehorn	F	T21080/9	drinking horn fitting	iron/bronze/copper	Viking Age	Trøndelag	Levanger	Gjeite	fragments	grave find
8	drikkehorn	F	T21080/10	drinking horn fitting	copper	Viking Age	Trøndelag	Levanger	Gjeite	fragments	grave find
9	drikkehorn	F	T8540	drinking horn fitting (?)	iron	Viking Age	Trøndelag	Skaun	Børseknogn (Huseby)	fragment	grave find
10	drikkehorn	?	T27585	drinking horn fitting	copper	Late Iron Age/ Early Middle Ages	Trøndelag	Skaun	Storset	fragment	single find
11	beslag	?	T28220	drinking horn fitting	copper	Late Iron Age/ Early Middle Ages	Trøndelag	Skaun	Viggen Ommunggård	fragment	single find
12	drikkehorn	F	T9591/001	drinking horn fittings	copper (?)	Viking Age	Trøndelag	Stjørdal	Myr Vestre (Fasteraune i Skavtal)	2 pieces in fragments	grave find
13	drikkehorn	F	T9591/002	drinking horn fittings	copper (?)	Viking Age	Trøndelag	Stjørdal	Myr Vestre (Fasteraune i Skavtal)	fragments	grave find
14	drikkehorn	F	T9591/003	drinking horn fittings	copper (?)	Viking Age	Trøndelag	Stjørdal	Myr Vestre (Fasteraune i Skavtal)	fragments	grave find
15	fat	M (?)	T1180	vessel/ plate	wood	Late Iron Age	Trøndelag	Overhalla	Vold	4 pieces	grave find
16	øse	M (?)	T1181	ladle	wood	Late Iron Age	Trøndelag	Overhalla	Vold	quite good	grave find
17	fat	M (?)	T1182	barrel (?)	wood	Late Iron Age	Trøndelag	Overhalla	Vold	3 pieces	grave find
18	bøtte	M (?)	T1183	bucket	wood	Late Iron Age	Trøndelag	Overhalla	Vold	several rods	grave find
19	drikkehorn	M (?)	T1184	drinking horn	wood with bronze fittings	Late Iron Age	Trøndelag	Overhalla	Vold	quite good	grave find
20	skål	M (?)	T1185	bowl	wood	Late Iron Age	Trøndelag	Overhalla	Vold	lacking some parts	grave find

NR.	KEY WORD	GENDER	SHELF MARK	OBJECT	MATERIAL	DATING	REGION	MUNICIPALITY	FARM	STATE OF CONSERVATION	CONTEXT
21	sigd	M(?)	T1199	sickle blade	iron	Late Iron Age	Trøndelag	Overhalla	Vold	3 pieces	grave find
22	drikkehorn	?	T27153	drinking horn fitting	copper	Viking Age/Early Middle Age	Trøndelag	Stjørdal	Auran Indre	1 piece	single find
23	kar/kjele	M	T20362	pot	iron	Late Iron Age/Viking Age	Trøndelag	Steinkjer	Egge	fragments	grave find
24	øse	?	T4621	ladle	bronze	Late Iron Age (?)	Trøndelag	Ørland	Steinvik	good	grave find
25	øse	?	T4622	casserole/large ladle	bronze	Late Iron Age (?)	Trøndelag	Ørland	Steinvik	fragments	grave find
26	kjele	?	T4623	cauldron	bronze	Late Iron Age (?)	Trøndelag	Ørland	Steinvik	3 pieces	grave find
27	beslag	?	T4624/ T4625	wooden vessel fittings	bronze	Late Iron Age (?)	Trøndelag	Ørland	Steinvik	2 pieces in fragments	grave find
28	kjele	?	C579	kettle	iron	Late Iron Age	Trøndelag	Steinkjer	Nordgaarden Nedre	fragments	grave find
29	øse	F(?)	T20913/2	ladle	bronze	Late Iron Age/Viking Age	Trøndelag	Steinkjer	Skei	fragments	grave find
30	spann	F(?)	T20913/3	bucket	wood with bronze fittings	Late Iron Age/Viking Age	Trøndelag	Steinkjer	Skei	quite good	grave find
31	øse	?	T5387	ladle	iron	Migration Period/Middle Ages	Trøndelag	Stjørdal	Steinvik	incomplete	grave find
32	øse	F	T11938	ladle	iron	Viking Age	Trøndelag	Midtre Gauldal	Talsnes	incomplete	grave find
33	øse	?	T15103	ladle	iron	Late Iron Age	Trøndelag	Selbu	Storevjen Oppigård	incomplete	grave find
34	sigd	F	T15136/e	sickle blade	iron	Viking Age	Trøndelag	Frosta	Nygården	incomplete	grave find
35	øse	F	T15136/g	ladle/ casserolle	iron	Viking Age	Trøndelag	Frosta	Nygården	incomplete	grave find
36	øse	M(?)	T18027	ladle (short shaft)	bronze	Viking Age	Trøndelag	Steinkjer	Øksnes Vestre	fragment	grave find
37	øse	?	T23629	ladle	wood	Iron Age (?)	Trøndelag	Fiatanger	Strøm	fragments	grave find
38	sigd	F	T15057/f	sickle blade	iron	Viking Age	Trøndelag	Melhus	Eid	2 pieces	grave find
39	gryte	F	T15057/o	pot	iron	Viking Age	Trøndelag	Melhus	Eid	2 pieces	grave find
40	gryte	?	T17762/g	pot handle	iron	Viking Age	Trøndelag	Rennebu	Rise	1 fragment	grave find

NR.	KEY WORD	GENDER	SHELF MARK	OBJECT	MATERIAL	DATING	REGION	MUNICIPALITY	FARM	STATE OF CONSERVATION	CONTEXT
41	gryte	?	T12647	pot	soapstone	Late Iron Age/ Viking Age (?)	Trøndelag	Orkland	Drågset	1 fragment	grave find
42	gryte	?	T12648	pot	soapstone	Late Iron Age/ Viking Age (?)	Trøndelag	Orkland	Drågset	1 fragment	grave find
43	gryte	?	T13221/b	pot (?)	soapstone	Late Iron Age	Trøndelag	Orkland	Furen	1 fragment	grave find
44	gryte	?	T13221/e	millstone	stone	Late Iron Age	Trøndelag	Orkland	Furen	1 fragment	house find
45	gryte	?	T13527	pot	soapstone	Middle Ages (?)	Trøndelag	Steinkjer	Berstad	2 pieces	single find
46	gryte	?	T27671/13	pot	soapstone	Viking Age	Trøndelag	Melhus	Foss Lian	1 fragment	settlement
47	gryte	?	T27671/14	pot	soapstone	Viking Age/ Middle Ages	Trøndelag	Melhus	Foss Lian	1 fragment	settlement
48	ljà	M (?)	T1451	scythe blade	iron	Late Iron Age	Trøndelag	Stjørdal	Værnes, Værnes Østre	fragments	grave find (?)
49	ljà	?	T1724	scythe blade	iron	Late Iron Age	Trøndelag	Oppdal	Rise	fragments	grave find
50	ljà	?	T1959	scythe blade	iron	Late Iron Age	Trøndelag	Oppdal	Stranden	1 piece	grave find (?)
51	sigd	?	T1960	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Stranden	1 piece	grave find (?)
52	sigd	?	T1961	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Stranden	incomplete	grave find (?)
53	ljà	M (?)	T2898	scythe blade	iron	Late Iron Age	Trøndelag	Steinkjer	Brandsegg Søndre	incomplete	grave find
54	ljà	M (?)	T2907	scythe blade	iron	Late Iron Age	Trøndelag	Steinkjer	Østeraas Østre	incomplete	grave find
55	sigd	?	T3237	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Rise	incomplete	grave find
56	sigd	?	T3238	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Rise	incomplete	grave find
57	ljà	?	T3238	scythe blade	iron	Late Iron Age	Trøndelag	Oppdal	Rise	fragment	grave find
58	ljà	?	T7314	scythe blade	iron	Late Iron Age	Trøndelag	Oppdal	Rise	incomplete	grave find
59	ljà	?	T7702	scythe blade	iron	Late Iron Age (?)	Trøndelag	Overhalla	Skogmo Store	incomplete	grave find
60	sigd	F	T7720	sickle blade	iron	Late Iron Age	Trøndelag	Overhalla	Skogmo Store	2 pieces	grave find

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61	ljå	?	T8955	scythe blade	iron	Late Iron Age	Trøndelag	Trøndelag	Verdal	Rindsem	2 pieces
62	ljå	?	T12080/f	scythe blade	iron	Viking Age (?)	Trøndelag	Trøndelag	Overhalla	Ristad	3 pieces
63	ljå	?	T12258/f	scythe blade	iron	Late Iron Age	Trøndelag	Trøndelag	Heim	Berg	incomplete
64	ljå	?	T12258/g	scythe blade	iron	Late Iron Age	Trøndelag	Trøndelag	Heim	Berg	incomplete
65	ljå	M (?)	T12372/f	scythe blade	iron	Viking Age	Trøndelag	Trøndelag	Holtålen	Kirkhus	fragments
66	ljå	?	T14700	scythe blade	iron	Viking Age/ Middle Ages	Trøndelag	Trøndelag	Oppdal	Gregosen Eller Vognildsløttet	incomplete
67	ljå	M (?)	T15965/d	scythe blade	iron	Viking Age	Trøndelag	Trøndelag	Steinkjer	Hegge Østre	2 fragments
68	ljå	M	T16134/d	scythe blade	iron	Viking Age	Trøndelag	Trøndelag	Stjørdal	Værnes, Værnes Østre	fragments
69	ljå	?	T16992/c	scythe blade	iron	Viking Age	Trøndelag	Trøndelag	Steinkjer	Ramberg	2 fragments
70	ljå	?	T16994/c	scythe blade	iron	Viking Age/ Early Middle Ages	Trøndelag	Trøndelag	Skaun	Viggen Ommundsgård	incomplete
71	ljå	?	T18819/e	scythe blade	iron	Merovingian Period/ Viking Age	Trøndelag	Trøndelag	Oppdal	Oppdal Prestegård	bad state
72	sigd	?	T18819/f	sickle blade	iron	Merovingian Period/ Viking Age	Trøndelag	Trøndelag	Oppdal	Oppdal Prestegård	good
73	sigd	?	T18819/g	sickle blade	iron	Merovingian Period/ Viking Age	Trøndelag	Trøndelag	Oppdal	Oppdal Prestegård	incomplete
74	sigd	M (?)	T21291/20	sickle blade	iron	Viking Age	Trøndelag	Trøndelag	Oppdal	Oppdal Prestegård	quite good
75	sigd	M (?)	T21291/21	sickle blade	iron	Viking Age	Trøndelag	Trøndelag	Oppdal	Oppdal Prestegård	quite good
76	sigd	M (?)	T19010/h	sickle blade	iron	Viking Age	Trøndelag	Verdal	Haug	incomplete	grave find
77	ljå	?	T20799	scythe blade	iron	Late Iron Age	Trøndelag	Selbu	Mørset Søndre	incomplete	single find
78	ljå	M	T10666	sickle blade	iron	Viking Age	Trøndelag	Namsos	Klingen	fragments	grave find
79	ljå	M	T10666	sickle/ scythe blade	iron	Viking Age	Trøndelag	Namsos	Klingen	fragments	grave find
80	sigd	M (?)	C54723/14	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	?	?	grave find (?)

NR.	KEY WORD	GENDER	SHELF MARK	OBJECT	MATERIAL	DATING	REGION	MUNICIPALITY	FARM	STATE OF CONSERVATION	CONTEXT
81	ljå	M (?)	C54723/15	scythe blade	iron	Late Iron Age	Trøndelag	Oppdal	?	?	grave find (?)
82	ljå	?	T22373	scythe blade	iron	Late Iron Age	Trøndelag	Oppdal	Oppdal Prestegård	incomplete	grave find
83	sigd	?	C320/b	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Drivstua	fragment	grave find
84	sigd	?	T508	sickle blade	iron	Late Iron Age	Trøndelag	Melhus	Branem	quite good	indefinite
85	sigd	?	T744	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Oppdal Prestegård	incomplete	soil mound
86	sigd	?	T755	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	?	quite good	indefinite
87	sigd	?	T806	sickle blade	iron	Late Iron Age	Trøndelag	Steinkjer	Dalem	incomplete	grave find
88	sigd	?	T1303	sickle blade	iron	Late Iron Age	Trøndelag	Levanger	Stangerholt	2 fragments	indefinite
89	sigd	?	T1409	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Oppdal Prestegård	incomplete	indefinite
90	sigd	?	T1444	sickle blade	iron	Late Iron Age	Trøndelag	Melhus	Krokstad	incomplete	grave find (?)
91	sigd	?	T1512	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Oppdal Prestegård	incomplete	grave find
92	sigd	M (?)	T1607	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	?	fragments	grave find
93	sigd	?	T1664	sickle blade	iron	Late Iron Age	Trøndelag	Steinkjer	Dalem	incomplete	grave find
94	sigd	?	T2116	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Stranden	incomplete	grave find (?)
95	sigd	?	T2727	sickle blade	iron	Late Iron Age (?)	Trøndelag	Steinkjer	Brunstad	incomplete	indefinite
96	sigd	?	T3055	sickle blade	iron	Late Iron Age	Trøndelag	Levanger	Valan	fragment	grave find
97	sigd	?	T3021	sickle blade	iron	Late Iron Age	Trøndelag	Steinkjer	Bjerkem	incomplete	grave find (?)
98	sigd	?	T3124	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Rise	incomplete	grave find
99	sigd	?	T3265	sickle blade	iron	Late Iron Age	Trøndelag	Stjørdal	Bjørken	fragments	grave find
100	sigd	?	T3317	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Oppdal Prestegård	incomplete	grave find



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101	sigd	?	T3616	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Rise	incomplete	grave find
102	sigd	?	T4077	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Rise	incomplete	grave find
103	sigd	?	T4442	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Rise	incomplete	grave find
104	sigd	?	T4443	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Rise	incomplete	grave find
105	sigd	?	C5692	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Oppdal Prestegård	incomplete	grave find
106	sigd	?	T5830	sickle blade	iron	Late Iron Age	Trøndelag	Høylandet	År	3 fragments	grave find
107	sigd	M (?)	T7272	sickle blade	iron	Late Iron Age	Trøndelag	Heim	Vitsø	fragments	grave find
108	sigd	F	T7696	sickle blade	iron	Late Iron Age	Trøndelag	Overhalla	Skogmo Store	fragments	grave find
109	sigd	?	T7703	sickle blade	iron	Late Iron Age	Trøndelag	Overhalla	Skogmo Store	incomplete	grave find
110	sigd	?	T8022	sickle blade	iron	Late Iron Age	Trøndelag	Overhalla	Skogmo Store	2 fragments	grave find
111	sigd	?	T8054	sickle blade	iron	Late Iron Age (?)	Trøndelag	Overhalla	Skogmo Store	3 fragments	grave find
112	kjel	?	T8057	cauldron	?	Late Iron Age (?)	Trøndelag	Overhalla	Skogmo Store	fragment	grave find
113	sigd	?	T8376	sickle blade	iron	Viking Age	Trøndelag	Verdal	Oppem	fragments	grave find
114	sigd	M (?)	T8499	sickle blade	iron	Late Iron Age	Trøndelag	Hitra	Barman Strømsvik Øvre	incomplete	grave find
115	sigd	?	T11414	sickle blade	iron	Late Iron Age	Trøndelag	Snåsa	Hammer Nordre	quite good	grave find
116	sigd	?	T11880	sickle blade	iron	Viking Age (?)	Trøndelag	Orkland	Ingdalen Øvre	fragments	grave find
117	sigd	M/F (?)	T11912	sickle blade	iron	Viking Age	Trøndelag	Overhalla	Melhus	fragments	grave find
118	sigd	?	T12205/d	sickle blade	iron	Viking Age	Trøndelag	Steinkjer	Midjo	fragment	grave find
119	sigd	?	T12225/d	sickle blade	iron	Viking Age	Trøndelag	Malvik	Malvik Nedre	fragment	grave find
120	sigd	M (?)	T12313/d	sickle blade	iron	Viking Age	Trøndelag	Ørland	Røstad	fragment	grave find

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121	sigd	?	T12372/g	sickle blade	iron	Viking Age	Trøndelag	Holtålen	Kirkhus	fragment	grave find
122	sigd	?	T12455/c	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Rise	2 fragments	grave find
123	sigd	M	T12673/d	sickle blade	iron	Viking Age	Trøndelag	Steinkjer	Hegge	fragment	grave find
124	sigd	?	T12796/d	sickle blade	iron	Viking Age	Trøndelag	Hitra	Rottem	2 fragments	grave find
125	sigd	?	T13758/e	sickle blade	iron	Viking Age	Trøndelag	Stjørdal	Setnan	fragment	grave find
126	sigd	?	T13936/d	sickle blade	iron	Viking Age	Trøndelag	Frosta	Rygg Øvre	incomplete	grave find
127	sigd	M	T14431/i	sickle blade	iron	Viking Age	Trøndelag	Stjørdal	Moksnes Søndre	fragment	grave find
128	sigd	F	T15057/f	sickle blade	iron	Viking Age	Trøndelag	Melhus	Eid	2 fragments	grave find
129	gryte	F	T15057/o	pot	iron	Viking Age	Trøndelag	Melhus	Eid	2 fragments	grave find
130	sigd	?	T15147/d	sickle blade	iron	Viking Age	Trøndelag	Høylandet	Skarland	2 fragments	grave find
131	sigd	F	T15833/a	sickle blade	iron	Viking Age	Trøndelag	Overhalla	Engstad	incomplete	grave find
132	sigd	F	T16078/f	sickle blade	iron	Viking Age	Trøndelag	Steinkjer	Føling Søndre	fragments	grave find
133	sigd	?	T16141/g	sickle blade	iron	Viking Age	Trøndelag	Stjørdal	Værnes, Værnes Østre	fragments	grave find
134	sigd	M	T16402/g	sickle blade	iron	Viking Age	Trøndelag	Ørland	Uthaug	fragments	grave find
135	sigd	F	T16407/e	sickle blade	iron	Viking Age	Trøndelag	Snåsa	Finsås	fragments	grave find
136	sigd	F	T17384/h	sickle blade	iron	Viking Age	Trøndelag	Ørland	Uthaug	fragments	grave find
137	sigd	?	T17679/d	sickle blade	iron	Viking Age	Trøndelag	Ørland	Grande	2 fragments	grave find
138	sigd	F	T17739/i	sickle blade	iron	Viking Age	Trøndelag	Ørland	Grande	fragments	grave find
139	sigd	?	T18123/h	sickle blade	iron	Viking Age	Trøndelag	Oppdal	Rise	incomplete	grave find
140	sigd	M (?)	T18593/d	sickle blade	iron	Viking Age	Trøndelag	Orkland	Ree	2 fragments	grave find

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141	sigd	?	T18755/d	sickle blade	iron	Viking Age	Trøndelag	Oppdal	Opdal Prestegård	good	grave find
142	sigd	?	T18791/c	sickle blade	iron	Viking Age	Trøndelag	Namsos	Tranås	fragment	grave find
143	sigd	F	T18960/i	sickle blade	iron	Viking Age	Trøndelag	Ørland	Uthaug	incomplete	grave find
144	sigd	M (?)	T19010/h	sickle blade	iron	Viking Age	Trøndelag	Verdal	Haug	fragment	grave find
145	sigd	?	T19026/c	sickle blade	iron	Viking Age	Trøndelag	Orkland	Aa med Auset	3 fragments	grave find
146	sigd	M/F (?)	T19511/z	sickle blade	iron	Viking Age	Trøndelag	Steinkjer	Fossem	fragments	grave find
147	sigd	M/F (?)	T19511/y	sickle blade	iron	Viking Age	Trøndelag	Steinkjer	Fossem	incomplete	grave find
148	sigd	M/F (?)	T19511/æ	sickle blade	iron	Viking Age	Trøndelag	Steinkjer	Fossem	fragment	grave find
149	sigd	M/F (?)	T19511/ø	sickle blade	iron	Viking Age	Trøndelag	Steinkjer	Fossem	3 fragments	grave find
150	sigd	?	T19521/a	sickle blade	iron	Viking Age (?)	Trøndelag	Overhalla	Sandmoen	incomplete	grave find
151	sigd	?	T19968/a	sickle blade	iron	Late Iron Age	Trøndelag	Levanger	Strømmen	fragment	grave find
152	sigd	F (?)	T20248/c	sickle blade	iron	Viking Age	Trøndelag	Steinkjer	Aunvold	incomplete	grave find
153	sigd	M (?)	C1072/d	sickle blade	iron	Late Iron Age	Trøndelag	Orkland	Ree	incomplete	grave find
154	sigd	?	T2117	sickle blade	iron	Merovingian Period/ Viking Age	Trøndelag	Oppdal	Stranden	incomplete	indeterminate
155	sigd	M (?)	T6924/g	sickle blade	iron	Late Iron Age	Trøndelag	Levanger	Hynne	incomplete	grave find
156	ljà	?	T1962/j	scythe blade	iron	Merovingian Period/ Viking Age	Trøndelag	Oppdal	Stranden	fragment	indeterminate
157	sigd	?	T1962/k	sickle blade	iron	Merovingian Period/ Viking Age	Trøndelag	Oppdal	Stranden	fragment	indeterminate
158	sigd	?	T1303/b	sickle blade	iron	Late Iron Age	Trøndelag	Levanger	Stangerholt	2 fragments	grave find
159	sigd	?	T21210/g	sickle blade	iron	Late Iron Age	Trøndelag	Namsos	Sandvika	3 fragments	grave find
160	sigd	?	C54723/14	sickle blade	iron	Late Iron Age	Trøndelag	Oppdal	Stranden	fragment	indeterminate

161	ljå	?	C54723/15	scythe blade	iron	Late Iron Age	Trøndelag	Oppdal	Stranden	fragment	indeterminate
162	sigd	F (?)	T21520/98	sickle blade	iron	Merovingian Period/ Viking Age	Trøndelag	Nærøysund	Ryum	fragment	grave find
163	sigd	F (?)	T21520/120	sickle blade	iron	Merovingian Period/ Viking Age	Trøndelag	Nærøysund	Ryum	fragment	grave find
164	sigd	?	T26325	sickle blade	iron	Early/late Iron Age	Trøndelag	Overhalla	Rygg	fragments	grave find
165	sigd	M (?)	T21886/6	sickle blade	iron	Viking Age	Trøndelag	Oppdal	Oppdal Prestegård	incomplete	grave find
166	sigd	?	T22216/3	sickle blade	iron	Viking Age	Trøndelag	Heim	Skeiet	3 fragments	grave find
167	sigd	?	T21890/2	sickle blade	iron	Late Iron Age	Trøndelag	Ørland	Kråkvåg	fragments	cultural layer
168	sigd	?	T21889/1	sickle blade	iron	Late Iron Age	Trøndelag	Ørland	Kråkvåg	2 fragments	cultural layer