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Mapping the Viking Age World:

A GIS Analysis of the Contemporary Evidence

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Doctor of Philosophy

Supervised by **Prof. Poul Holm**

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Summary

This thesis aimed to produce a critical reanalysis of Norse activity during the early Viking Age, c. 793-920, using Geographic Information Systems (GIS). By mapping and analyzing selected contemporary written and material evidence across Atlantic Europe, this project sought to quantify and qualify Norse activity, and to confirm and identify patterns of behavior, some of which may heretofore be unknown. The historical sources included the contemporary Irish Annals, the Frankish Annals, the Anglo-Saxon Chronicle, and the Spanish Chronicle of Alfonso III. Norse events were recorded as a dataset, typified, and georeferenced before they were mapped on the final deep map. The archaeological material pertaining to Norse activity included burials, female jewelry stray finds, and metal hoard evidence. These were similarly geolocated and mapped against the historical sources. By layering these disparate sources and analyzing the patterns that appear, two main conclusions were drawn regarding the geopolitical landscape of the Viking Age: firstly, that the Danish state was a strong geopolitcal presence within Atlantic Europe during the first half of the eighth century; secondly, that two separate Norse groups with different socio-economic systems raided and settled across Atlantic Europe, with one group firmly entrenched in Ireland, the Irish Sea and northern Britain, and the second group focusing their efforts between England and Frankia.

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Foreword

The problem with being a Viking Age historian is that the sources are limited. The contemporary annals and chronicles have been examined and analyzed *ad nauseam*, and when I began this project, I knew that I ran the risk of contributing little in the way of new and exciting research. It helped that I have always had one foot in an archaeological trench. Archaeological scientists are making the most inroads in that field; from the geneticists who are testing for sex, to the scientists testing for stable isotopes that can reveal geographical origin or the age of the sample – this, to me, feels like the true frontline in unlocking the secrets of the past.

Yet – the major hurdle that I have always understood to impede the progression of Viking Studies stands as a focus on regional and national studies. Those who studied the Great Heathen Army in England may have referenced the Irish or the Frankish Annals, or those who studied the Hiberno-Norse linked the Dublin Elite to those operating across the Irish Sea, but nowhere had I seen the contemporary sources of different regions collected together and studied chronologically. That was my starting point.

I am primarily a visual learner. Reading only sticks if I underline or highlight, and if I make notes or doodles in the margin. Ideas and concepts become clear with pictures and diagrams. Moreover, as a synesthete (wherein I experience numbers, letters, and sounds as colors, and time as a spatial sequence), I knew that I wanted to communicate the time and space of the Viking Age through visual and interactive media. GIS mapping is the perfect solution, offering an opportunity to bring together interdisciplinary and international evidence to look at this time and place in history through a holistic bird’s eye view.

The final product of this project has evolved into an interactive online map of the Viking Age, complete with hideable layers, clickable points, and a sliding time-scale. This map can be found here:

https://experience.arcgis.com/experience/73fd6269dd1c4f48b52a89b5fead9700/page/Home/

While QGIS was also used to create and explore more in-depth maps for each chapter, the online map, created through ArcGIS Online ‘Web Experience Builder,’ serves as a standalone research tool. It is my hope that readers of this thesis, as well as more general interested audiences will find this map useful and interesting.

Introduction

This chapter sets out the research questions and overall aims of the thesis, providing an overview of the methodology and theoretical frameworks that have informed the project.

This thesis aims to produce a critical reanalysis of Norse activity during the early Viking Age, c. 777-920, using Geographic Information Systems (GIS). By mapping and analyzing selected contemporary written and material evidence, this project seeks to quantify and qualify Norse activity, and to confirm and identify patterns of behavior, some of which may heretofore be unknown. The study of the Viking Age has traditionally integrated a variety of fields and disciplines, including – but not limited to - history, archaeology, linguistics, art history, and literature. However, the field often restricts itself by approaching the world of the vikings through regional and national divides. By limiting the geographic boundary of study, this study holds that such scholars will continue to view those who participated in Viking Age activity as ‘other’ to the native peoples these Norse vikings interacted with. Such geographic constraints thus produce prescribed analyses of the Viking World at large. As such, this thesis will bridge the gap between different studies of the Norse.

Examining and understanding the source evidence for the Viking Age serves as the main driver of the thesis. The first portion of the project will undertake a critical analysis of the collected data to determine what texts and materials can be used to further the study, and how they can be applied. The concluding chapter(s) then offer a holistic chronological and geographic examination of Norse activity.

The contemporary written sources will include the annals and chronicles of current day Spain, Ireland, England, and Continental Western Europe (France, Germany, Belgium, the Netherlands, etc.). The archaeological material will include coin hoards and Norse burials. Elevation will also be studied to understand how the Norse interacted with these foreign landscapes.

In this introductory chapter, I will outline my main research questions and set the parameters of the study. I will then discuss the methodology by which the evidence will be analyzed and tested. Finally, I review the structure and outline the chapters of the project.

Research aims and questions

The main problem addressed in this thesis is the restrictive nature of research conducted within the boundaries of modern regions and states. This tradition became fixed in the nineteenth-century, during which time various groups throughout Western and Northern Europe (henceforth ‘Atlantic Europe’) used the Viking Age to legitimize both colonial expansion and nationalist ideologies.[1] These divides hold true for both written evidence and archaeological material. The proposed solution, therefore, is a geographic and chronological overview of the evidence.

This project focuses on Norse activity throughout Atlantic Europe during the early Viking Age, defined as *c.* 777-920 AD. During this period, the Norse were largely a destructive and disruptive force in the kingdoms of Ireland, Britain, and Frankia. Those who recorded their presence were not impartial witnesses. They were Christian scholars confronted with a pagan offensive, and they suffered – or heard of great suffering – wrought by these Norse forces. However, theirs is a one-sided story, and no Norse records remain to offer an alternative point of view. As such, the emotive quality of these Christian records continues to inform historians today. This project aims to distill the written evidence down to objective thematic markers of geographical data by using the structured platform made available through GIS. The comparative nature of historical and archaeological evidence will further provide context in the quest to move beyond subjective interpretations of the Viking Age.

The steps taken to reach these aims include:

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[1] Andrew Wawn, *The Vikings and the Victorians : inventing the old north in nineteenth-century Britain* (Cambridge: D.S. Brewer, 2000).

1. Systematically catalogue and geographically reference (henceforth "georeference") Norse activity from within Atlantic Europe using contemporary written sources into Dataset 1.
2. Systematically catalogue and georeference archaeological material relating to metal hoarding and Norse-type burials from within Atlantic Europe into Datasets 2 and 3.
3. Assess the physical elevation for each eligible textual reference (within Dataset 1) and analyze correlation between elevation and activity.
4. Quantify organization and activity patterns based on Norse movement and interaction.
5. Layer all datasets onto single GIS map to analyze organization and activity patterns based on Norse movement and interaction.

By reducing texts and materials into numerical and empirical data points, this project strives for an unbiased interpretation of the evidence. These biases, which have resulted from the inherent limitations of regional studies, will be explored below in Chapter 2. Instead of interpreting qualitative evidence, a data-driven analysis can allow for the disruption of previously held theories and the institution of new hypotheses. By applying the combined evidence to a geographic model of deep mapping, I seek to uncover new patterns of Norse activity and behavior.

The above aims produced the following research questions:

1. How does the shift from regional to trans-regional historical source use change the narrative of Norse raiding and settlement in the early Viking Age?

2. Does the combined silver hoard evidence (ca. 750-950) suggest that the Norse were primarily driven by economic gain?
3. Do the combined Norse burials suggest a monolithic Norse culture across Atlantic European settlements?
4. By applying the combined evidence to a geographic model of deep mapping, how are previous socioeconomic perceptions of the Norse substantiated or disproved?

These questions must be answered by mapping the different source material separately. To begin, both native and Norse activity will be surveyed within the written historical sources to provide for dependability. Similarly, archaeological material will be collected and explored in order to understand to what extent survival and/or absence of evidence plays within the material record. Ultimately, this project will utilize ‘deep mapping’ by compiling the corpora of textual and archaeological evidence to negotiate the interlinking layers of space and place. Deep mapping lies in the wider context of both Digital and Spatial Humanities, and David J. Bodenhamer defines deep maps as “linking geographic and cultural representations of a place,” in which scholars seek connections within[2] geographic coordinates. Not only is this project expected to produce new insights into patterns of Norse activity and behavior, but it will also seek to examine means, establish aims, and chart the development of activity through time.

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[2] David J Bodenhamer, "The varieties of deep maps," in *Making Deep Maps: Foundations, Approaches, and Methods*, ed. David J. Bodenhamer, John Corrigan, and Trevor M. Harris (London and New York: Routledge, 2021), 1.

Boundaries, Parameters, and Materials

Despite this thesis's own call to broaden the geographic boundaries of Viking Age research, there will naturally be limits. This study confines itself to 'Atlantic Europe,' a decision based on the availability of contemporary written evidence (discussed below). Broadly defined, Atlantic Europe includes the Irish and British Isles, France, Belgium, Netherlands, western Germany, and the Iberian Peninsula. Also present in the research are southern Scandinavia and the coastal lands surrounding the southern Baltic Sea. There is an awareness of an apparent tension in limiting the geographical boundaries of a project that aims to move beyond national borders. However, due to time constraints, it seemed necessary to focus attention on the Atlantic region. Ideally, this project would have included activity or artefacts from the east, beyond the use of dirham hoards that were previously catalogued by numismatists.

The years 777-920 AD frame the chronological period of study. Traditionally, at least within Anglo-centric circles, the Viking Age begins in 793 with the raid on Lindisfarne as recorded in the *Anglo-Saxon Chronicle*, to which scholars consistently add a footnote remarking on the raid in the south of England in 786 or 787. By pushing the beginning of the study back to 777, which marks the first record of a northern kingdom by the Franks, followed by the 782 appearance of a Danish embassy to Charlemagne's court, I seek to frame the Viking Age beyond established narratives of uncalculated violence. This, again, is a product of Anglo-centric bias, which suggests that the Viking Age began with attacks on Christian centers. The end date of 920 was an arbitrary decision, as the shift in Norse behavior proves subtle, and no single event serves to demarcate an end to this early phase of activity. However, by 920 the Norse had effected dramatic shifts of power within the kingdoms of Ireland, England, and Frankia.

This thesis attempts to utilize contemporary or near-contemporary sources to reconstruct the period. The (near-)contemporary textual evidence survives in the form of annals and chronicles. From the island of Ireland, monasteries produced a series of yearly records now known as the Irish Annals. This study will rely on the four surviving annals for this period: the two series with the largest collection of entries are *Annals of the Four Masters* (*AFM*), *Annals of Ulster* (*AU*); the most contemporary surviving chronicle is *Annals of Inisfallen* (*AI*); while *Chronicon Scotorum* (*CS*) contains mostly duplicate entries. The *Annals of Tigernach* are excluded from this study, as fragments covering the period 766 to 973 have been lost. From England, the main source of information stems from the *Anglo-Saxon Chronicle* (*ASC*), which was written at the Wessex court and survives in “a formidably complex set of annals, preserved unevenly in seven manuscripts.”[3] From the Carolingian Empire we have a collective set of Frankish Annals, which were recorded at both monasteries and the royal courts: *Royal Frankish Annals* (*RFA*), *Annals of St-Bertin* (*AB*), *Annals of Fulda* (*AF*), *Annals of Xanten* (*AX*), and *Annals of St-Vaast* (*AV*). Finally, later chronicles are thought to have been created using the lost chronicles of Alfonso III from Spain. These sources will be explored in greater detail in Chapter 2.

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[3] Nicholas Brooks, "'Anglo-Saxon Chronicle(s)' or 'Old English Royal Annals'," in *Gender and Historiography: Studies in the Earlier Middle Ages in Honour of Pauline Stafford*, ed. Janet L. Nelson, Susan Reynolds, and Susan M. Johns (London: University of London, 2012).

There is a selection of texts that may serve as addendums to the chronological source material, but which will not be catalogued and mapped due to the limited timeline of this project. However, contemporary texts including charters, treaties, *vitae*, and letters may be used to expand the scope of this research project at a later stage. Chronicles and annals were prioritized over sources that proved to be more narrative and descriptive in quality. For example, historical narratives such as Asser's *Vita Alfredi* and Einhard's *Vita Caroli* are clear propaganda pieces, and "must be understood in relation to the political context in which [they are] produced."[4] Similarly, hagiographies such as *Vita Anskarii* are devoted to the promotion of a saint, and their cults are largely shaped by biblical models, in which scribes tended to favor idealized versions of the saint over historical accuracy.[5] This is not to say that the annals and chronicles do not display their own socio-political biases; these biases will explored below in Chapter 2.

The archaeological material evidence falls into two main categories. Firstly, I will explore metal and coin hoards, which have been recovered in Atlantic Europe, as well as Central/Eastern Europe and Scandinavia. These hoards are considered to be indicators of Norse presence and movement, as they were the drivers of silver through Eastern Europe into the Baltic and further west. Secondly, furnished Norse burials from the Viking Age can be clearly identified through the typological identification of grave goods amongst contemporary Christian burials. As such, Norse burials are positive indicators of Norse presence and (almost certainly) of settlement. Archaeologists have recorded numerous Norse burials in Ireland and Britain, while two burials have been identified on Continental Europe, in Pîtres and Brittany; possible explanations for a Continental dearth are explored.

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[4] Felice Lifshitz, "Beyond Positivism and Genre: "Hagiographical" Texts as Historical Narrative," *Viator* 25 (1994), https://doi.org/10.1484/j.Viator.2.301209.

[5] Gábor Klaniczay, "Hagiography and Historical Narrative," in *Chronicon, medieval narrative sources : a chronological guide with introductory essays*, ed. János M. Bak and Ivan Jurkovic (Turnhout: Brepols, 2013), 111.

To understand the human geographical element of Norse activity, an analysis of elevation data is offered, which seeks to understand patterns of landscape use. To note: an analysis of activity in relation to its proximity to navigable water sources was also surveyed, as was environmental proxy-data. The water source survey sought to measure distance to navigable water sources within increments of .5km, however this ultimately proved immensely difficult within the context of the whole of Atlantic Europe, and in some cases impossible. Sea levels were higher 1200 years ago, and in some cases river courses have shifted; what was once a navigable water source is no longer viable, and vice versa.[6] Similarly, this project attempted to analyze Norse activity in the context of the Atlantic European weather and climate using dendrochronological data. Recent scientific studies have successfully recreated seasonal temperature and precipitation averages for the period of the Viking Age, and I therefore sought to identify whether temperatures or droughts and pluvials had an impact on Norse activity.[7] However, the results did not yield any conclusive evidence for patterns of activity and were therefore not included below.

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[6] A. C. Kemp et al., "Climate related sea-level variations over the past two millennia," *Proc Natl Acad Sci U S A* 108, no. 27 (Jul 5 2011), https://doi.org/10.1073/pnas.1015619108, https://www.ncbi.nlm.nih.gov/pubmed/21690367.

[7] J. Luterbacher et al., "European summer temperatures since Roman times," *Environmental Research Letters* 11, no. 2 (2016), https://doi.org/10.1088/1748-9326/11/2/024001.; E. R. Cook et al., "Old World megadroughts and pluvials during the Common Era," *Sci Adv* 1, no. 10 (Nov 2015), https://doi.org/10.1126/sciadv.1500561, https://www.ncbi.nlm.nih.gov/pubmed/26601136.

Terminology

The language of the thesis, inclusive of the working databases, is English. This serves to make the study accessible to a larger and more general audience. Viking Age scribes recorded the original sources in a combination of Latin, Irish, and early English, which suggests that there are few scholars who have had the ability to read every reference to Norse activity in its source language. Therein lies the problem: different editors offer their own translations of the same passages. In order to address the terminology used throughout the rest of this thesis, this section concerns itself with the modern terminology used by scholars and the public. How the contemporary scribes referred to the Norse will be discussed in Chapter 2.II.

In relation to the subject of this study, neither 'Viking' nor 'Norse' were terms used by the contemporary chroniclers. The modern use of Viking stems back to the early 19th century and gained steady popularity due to a growing Victorian interest. For the Victorians, Vikings were meant to describe culturally linked Scandinavian peoples from the ninth to 11th centuries. 'Viking,' as defined by Judith Jesch, is "most often used to characterize peoples of Scandinavian origin who were active in trading and settlement as well as piracy and raiding, both within and without Scandinavia in a particular historical period, variously defined, but generally within the broad range of 750-1100."[8] Clare Downham, meanwhile, breaks down the terminology further due to a divergence in the word's origin during the Middle Ages and its more modern popular usage. She highlights the debate over whether 'viking' (lower case 'v') represents descriptions of Scandinavian sea-warriors, versus whether ‘Viking’ (capital ‘V’) is indicative of a “racial label to describe the peoples of medieval Iceland and Scandinavia at home or abroad.”[9] Both Jesch and Downham prefer to use ‘Viking’ as a cultural marker, but as this paragraph highlights, the word itself is problematic in meaning and use. Eric Christiansen rightly points out that Nordic slaves are not considered Vikings, because it refers to a free and mostly male class of actors.[10] Additionally, as Downham herself acknowledges, “Viking violence” was used as a positive example for building empires during the eighteenth to twentieth centuries.[11] There is no easy solution, and all roads forward are fraught with peril.

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[8] Judith Jesch, *The Viking Diaspora* (London: Routledge, 2015), 7.

‘Norse’ will be used as a hold all in this study to refer to the peoples generally originating from Scandinavia and who were active throughout Atlantic Europe during the Viking Age. It is acknowledged that Norse itself is not unproblematic, wherein it is taken to apply more often to Norwegians than to the Scandinavian actors as a whole. The term Dane, meanwhile, is far more limiting in its assumed scope, though it is the term most commonly used in contemporary English sources (e.g., see Danelaw). The term ‘Norse’ steers away from images of the Victorian ideal of the Viking, which perpetuates notions of a predominately violent male raider and his accompanying warrior class. These ideas are inconsistent with the aim of this study, which instead seeks to flesh out viking tropes to include women, children, traders, and settlers. The analysis will further show that there were several Norse groups acting during the Viking Age, thereby creating a need for different labels of differentiation. These disparate terminologies will be discussed in later chapters as the differentiations become apparent.

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[9] Clare Downham, "Viking Ethnicities: A Historiographic Overview," *History Compass* 10, no. 1 (2012): 2, https://doi.org/10.1111/j.1478-0542.2011.00820.x.
[10] Eric Christiansen, *The Norsemen in the Viking Age* (Oxford: Blackwell Publishing, 2002), 1.
[11] Downham, "Viking Ethnicities: A Historiographic Overview."

Methodology

"GIS privileged a certain way of knowing the world, one that valued authority, definition, and certainty over complexity, ambiguity, multiplicity, and contingency, the very thing that engaged humanists."[12]

In the mid-eighteenth century, the German philosopher Immanuel Kant proposed that human knowledge should be organized on three levels: 1. By subject; 2. Within a temporal dimension; 3. Relative to spatial relationships.[13] Building on this philosophical model in 2007, Cindy Bukach, a Cognitive Neuroscientist, writes:

> "Our perceptual system is not designed to perceive the passage of time, but it is designed to see the movement of objects through space. By converting time to motion, we can visualize the passage of time (as one does as one watches the hands on a clock move.) This same principle can operate not only on the scale of seconds, minutes, and hours, but also on the scale of years."[14]

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[12] David J Bodenhammer, John Corrigan, and Trevor M. Harris, "Introduction," in The Spatial Humanities: GIS and the Future of Humanities Scholarship (Bloomington & Indianapolis: Indiana University Press, 2010), ix.

[13] Fred K. Schaefer, "Exceptionalism in Geography: A Methodological Examination," Annals of the Association of American Geographers 43, no. 3 (1953), https://doi.org/10.1080/00045605309352114.; as cited in: Jordi Martí-Henneberg, "Geographical Information Systems and the Study of History," *Journal of Interdisciplinary History* XLII, 1, no. Summer (2011).

[14] Cindy Bukach, 2007.; as cited in: Edward L. Ayers, "Turning toward Place, Space, and Time," in *The Spatial Humanities: GIS and the Future of Humanities Scholarship*, ed. David J Bodenhammer, John Corrigan, and Trevor M. Harris (Bloomington & Indianapolis: Indiana University Press, 2010), 10.

Despite this intuitive approach to the study of peoples and period, there has traditionally been a divide between historians and geographers, in which the former studies time and the latter studies space. Artificial constructs have naturally delineated the two subjects, whether that be hours and days, longitude and latitude, or time-scapes and landscapes.[15] With the development of GIS, scholars can now create – to a limited extent – models and maps of time.

GIS is a relatively new medium. The Canadian Government first developed GIS in 1962, but the commercial sector did not begin to integrate the technology into its platforms until the 1980s. It is now a popular tool used by the public through applications such as Google Maps, Google Earth, and OpenStreetMap. However, historians have only begun to experiment with the merits of GIS within the last two decades, and acceptance by more traditional historians has been limited.[16] Throughout the course of drafting this thesis, there have already been large steps forward in accepting and embracing GIS as a tool for methodological advancement, but "latent tension, if not direct conflict, exists in linking a positivist technology with predominantly humanist traditions."[17] Bodenhamer emphasizes that while GIS are a powerful tool that allow for the management of analysis of evidence, its ability to find patterns, facilitate comparisons, enhance perspectives, and illustrate data aids, it does not replace expert historical analysis and narrative.[18] As such, GIS is here investigated as a tool and/or a methodology, instead of as an answer unto itself. Traditional methodologies - inclusive of the study of primary and secondary sources, the use of documents, records and archives, chronological narratives, material culture, etc. - must continue to dominate in the study of history, but there is room to experiment, and even to apply different models, including the Scientific Method, which underpins GIS.[19] With digital and spatial humanities, we have the power to make available, “dimensions of historical reality and change that no other mode of analysis can reveal.”[20] Ultimately, GIS has evolved to become a unifying platform between the disparate studies of time and space.

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[15] Ayers, "Turning toward Place, Space, and Time," 4.

[16] Donald A. DeBats and Ian N. Gregory, "Introduction to Historical GIS and the Study of Urban History," *Social Science History* 35, no. 4 (2016): 455, https://doi.org/10.1017/s0145553200011639.; Ian N. Gregory and Paul S. Ell, Historical GIS: Technologies, Methodologies and Scolarship (Cambridge: Cambridge University Press, 2007).; Anne Kelly Knowles, "GIS and History," in Placing History: How Maps, Spatial Data, and GIS are Changing Historical Scholarship, ed. Anne Kelly Knowles (Redlands: ESRI Press, 2008).

[17] Trevor M. Harris, John Corrigan, and David J Bodenhammer, "Challenges for the Spatial Humanities: Toward a Research Agenda," in *The Spatial Humanities: GIS and the Future of Humanities Scholarship*, ed. David J Bodenhammer, John Corrigan, and Trevor M. Harris (Bloomington & Indianapolis: Indiana University Press, 2010), 168.

So, what exactly is GIS and how can it be used as a historical method? This thesis collects and collates data pertaining to the Norse from historical sources and archaeological material. These databases can be queried to allow for the manipulation and analysis of the data, thus addressing questions of pattern and distribution. Moreover, these points can be georeferenced to exact locations, and then these georeferenced data points form the foundation of GIS maps. These GIS databases can further be integrated with other types of datasets, including environmental information, via layers.[21] Additionally, GIS provides “statistical calculations between data series to identify causal factors over time."[22] The use of an empirical base provides both qualitative and quantitative analytic approaches to the study of history and allows the reader to think critically and differently about the past.[23] Because qualitative data can be used in exponentially different ways within quantitative analysis, it was important for me to create clear questions prior to my research and set out concise parameters within the context of my methodology.

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[18] David J Bodenhamer, "The Potential of Spatial Humanities," in *The Spatial Humanities: GIS and the Future of Humanities Scholarship*, ed. David J Bodenhamer, John Corrigan, and Trevor M. Harris (Bloomington & Indianapolis: Indiana University Press, 2010), 28.

[19] Harris, Corrigan, and Bodenhammer, "Challenges for the Spatial Humanities: Toward a Research Agenda," 169.

[20] Anne Kelly Knowles, "Introduction," Social Science History 24, 3, no. Special Issue: Historical GIS: The Spatial Turn in Social Science History (2000): 453.

[21] DeBats and Gregory, "Introduction to Historical GIS and the Study of Urban History," 456.

It should be noted that while this thesis is largely a synthetic study, a significant amount of work was put into collecting large amounts of disparate and sometimes difficult to access textual and archaeological data in a single place. The textual evidence, which is drawn from pre-existing English translations of the primary sources, had to be tracked down and checked against the original source language. However, critical editions of the original text could likewise prove difficult to access. Data relating to metal hoards is collected from various regional and typological studies, though these had to be tracked down by region and/or nation. Burials are similarly collated from regional and national compendiums; Viking-type burials of Atlantic Europe have not previously (to my knowledge) been published in a single survey. Place-name evidence, despite previous studies on the subject, has not been included in this study due to the limitations of both time and scope.

It is necessary to note some of the complications in obtaining this data. Much of it was not readily available due to the restrictions throughout the Coronavirus pandemic, c. 2020-22. Books were ordered across libraries, and Trinity's scan-on-demand services used where possible, as was correspondence with several academics to obtain copies of studies that proved more elusive. Digital copies of surveys and online databases were relied upon in the absence of physical access. For example, while the English Portable Antiquities Scheme allowed for a compilation of Scandinavian female jewelry c. 750-950 in England, a comparable database was not available via the National Museum of Ireland – Archaeology.[24] Moreover, despite going on a waiting list to visit the archives 16 April 2021, as of March 2023 I have yet to receive a visiting date.

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[22] Martí-Henneberg, "Geographical Information Systems and the Study of History," 5.
[23] Myron Guttmann, "Preface," in Past Time, Past Place: GIS for History, ed. Anne Kelly Knowles (Redlands, CA: ESRI Press, 2002).; as cited in: DeBats and Gregory, "Introduction to Historical GIS and the Study of Urban History," 457.

The difficulties in tracking down such multifarious corpora have nevertheless ultimately proved to be rewarding. This project is the first study in which such a large and diverse collection of evidence of Viking Age Atlantic Europe has been synthesized and scrutinized as a whole. It is my hope that its limitations serve to reinforce the importance and potential for information sharing, particularly through digital access, and the supportive role we as historians can play in helping repositories, such as archives, libraries and museums, to advocate for digital initiatives.

The key to this project lies in the ability to layer different types of data onto a single GIS map through the process of deep mapping. These layers are the product of the collected source material discussed above, namely the contemporary written sources, archaeological material, and environmental proxy-data. By creating a series of transparent layers on a geographic map, this visual aid allows for a more thorough comparison of the evidence by revealing the emergence of patterns. This data has the power to recreate the extent to which the Norse moved, raided, traded, interacted with, and settled across Atlantic Europe during the early Viking Age.

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[24] A spreadsheet was sent to me by the Antiquities Duty Officer with a list of all brooches and ringed-pins recorded by the museum. However, the spreadsheet lacked chronological differentiation, and it was therefore impossible to conclude if the artefacts could be typed as Scandinavian and dated to the Viking Age c. 750-950. Headings included: 'NMIRegisterNo'; 'SimpleName' (ie 'Brooch'); 'Component' (ie 'Bronze,' 'Copper Alloy,' etc.); 'Townland'; 'FindPlace'; and 'County.'

Outline

The research questions and objectives will be structured around the collection and analysis of the data. In Chapter 1, I will conduct a thorough Literature Review. A comprehensive Historiography and Stand de Forschung of Viking Age material is necessary in order to understand the evidence available, and to ascertain why certain theories and hypotheses have been presented, rejected, and/or accepted regarding the historical record. Most importantly, a thorough review of the literature invites critical and constructive examinations as to why the Viking Age has been used to build narratives for nationalism and colonialism across Atlantic Europe and into European North America.

Chapter 2 presents an examination of the textual data, in which the written sources will be surveyed in order to identify geographical and chronological indicators for the reliability of their use. Chapters 3 and 4 examine the material evidence. More specifically, in Chapter 3, a thorough examination of the metal hoards, collating datasets from across Atlantic and Baltic Europe, is undertaken. This chapter seeks to understand not only why hoards were deposited, but also where the metal was sourced from and how it ended up in the ground. Most importantly, it will explore how and why these hoards are connected to the Norse of the Viking Age. Chapter 4 then explores Norse-type burials across Atlantic Europe and compares inhumation patterns to those found in the southern Scandinavian homelands. I will also survey female jewelry, as recovered through England’s Portable Antiquity Scheme, in order to compare burials with evidence of settlement.

Chapter 5 serves as a final analysis and summation to the collected data. In this chapter, I conduct a chronological study, examining the evolution of Norse activity from the late eighth-century up through the early tenth-century. The purpose of this chapter is to draw from the analysis of the evidence from the preceding chapters: what previously held theories stand in the face of data-driven and analytical scrutiny, and what new patterns emerge? The conclusion provides a summation of the insights and discoveries over the course of the project.

The Introduction Concluded

As presented above, this thesis aims to map Viking Age evidence using empirical GIS. It further seeks to understand how and why the evidence has been used previously, and to what extent it can be utilized in future studies; how has bias in and of the data shaped past studies, and what new patterns emerge when mapped? As much as this project attempts to be led by positive evidence alone, gaps remain: in the literature by what was lost through time and/or never recorded, and what has not survived as material evidence in the archaeological record. This research seeks to acknowledge these problems and gaps wherever possible, but also to produce a holistic study of the Viking Age using the available evidence.

Chapter 1. National Legacies: A history of Viking Age research

1.I Introduction

> *"It cannot be said too often that vikings were not respecters of boundaries, whether mental or geographical or political, and certainly not of modern categories."*[25]

This chapter aims to outline the state of the research concerning Viking Age history and archaeology. By reviewing the literature, I present a thorough survey of the available materials that have provided the most influential and enduring contributions to the study of the Norse. As Viking Studies has traditionally been presented through the lens of modern states and/or regions, the survey itself will serve to illuminate the limitations that national studies inevitably introduce.

In surveying the literature, I will divide the review into five main geographical areas of study: Denmark, Norway, Ireland, England and the combined modern states that now make up the Frankish Kingdoms. These are all areas that can reference both literary and archaeological sources in creating a comprehensive study of the Norse. To include both Denmark and Norway stretches the focus of this literature review, though the Frankish Annals reference royal activity within the boundaries of these modern states; the brief mentions of royal Danish activity give us tantalizing hints into the mystery of the northern territories. Furthermore, to review the literature centering on the Viking Age Danish kingdom is vital in understanding why there has been such debate about its very existence.

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[25] David Dumville, "Vikings in Insular chronicling," in *The Viking World*, ed. Stefan Brink and Neil Price (London and New York: Routledge, 2008), 357.

To note, there are locations which will not be covered, despite their connection to Viking Age history. Sweden and the Baltics are excluded due to geography, as this is a study of Atlantic Europe. In addition, although Norse raids occurred in Spain, Portugal, Italy, and the north of Africa, there is no evidence to suggest that they had any lasting effect on the sociopolitical landscape.

While the project itself explicitly aims to avoid modern national divisions, the nature of Viking Age studies up to his point has made such a differentiation necessary. It is essential to understand why these national narratives arose, and why traditional divisions are not conducive to a holistic analysis of the Norse in the Viking Age.

1.II Denmark

> *"So artefacts and burial mounds have a deep meaning to us in that they illustrate the sagas, and as national memorials as well. They so to speak make prehistory visible to us. We see our fathers for the first time break into the country and with sharp weapons subjugate the native peoples living there; we see them exercise knowledge of metals, ploughing on the whole a higher culture. In our hands we have their swords, by which they made the Danish name respected and feared; we can even exhibit the spoils of jewellery and other precious booty that they*

> *brought home from their journeys to foreign countries. So in this way the remains of prehistory bind us harder to our fatherland.”*[26]

During the early Viking Age, the Norse did not produce their own annalistic written record, leaving modern scholars with two incomplete channels of contemporary source evidence: (1) the archaeology of Scandinavia, and (2) references of Dano-Norse activity in the Frankish Annals. The first is problematic, in that archaeology itself will always offer a limited window, obscured by what is lost in the absence of time and/recovery. The second suffers from bias: the Franks wrote about a separate – sometimes-enemy - culture, people, and state. More explicitly, at the dawn of the Viking Age, the Christian European identity did not stretch northwards into Scandinavia, with the result that both contemporary and modern sources have viewed, and continue to view, the Norse as ‘Other’.

I begin with the obvious: the Viking Age is an intellectual construct, which was created in the second half of the nineteenth-century by a group of Scandinavian archaeologists. For these early academics, the Vikings were a homogenized Scandinavian culture who colonized regions of Atlantic Europe, and it was during this period that the foundations were laid for the modern Scandinavian states.[27] Contemporary western colonization and romantic nationalism strongly influenced the views of these archaeologists. Jens Jacob Asmussen Worsaae stands out as providing the first coherent archaeological approach to the Viking Age. Not only did he undertake considerable antiquary works within Denmark, but he also travelled to both Ireland and England to identify artefacts that shared typologies.[28] It should be noted that the interdisciplinary nature of his work was groundbreaking for the time, as typologies did not yet exist.

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[26] J. J. A. Worsaae, *Danmarks Oldtid oplyst ved Oldsager og Gravhøie* (Kjøbenhavn: Selskabet for Trykkefrihedens rette Brug, 1843), 116.; translated by Svanberg: Fredrik Svanberg, *Decolonizing the Viking age*, vol. no. 43, Acta archaeologica Lundensia. Series in 8°, (Stockholm: Almqvist & Wiksell International, 2003), 40.

[27] Svanberg, *Decolonizing the Viking age*, no. 43.

By the beginning of World War 2, there was a consensus among scholars that the later medieval and semi-legendary texts could not be used for comprehensive studies of the Danish Viking Age. Without the use of contemporary primary source material, the study of the Danish Viking Age settled firmly within the realms of pre-history, and thereby in the hands of archaeologists. In 1960, Johannes Brønsteds published *Danmarks Oldtid*, providing an exhaustive survey of the available archaeological material.[29] With objects of Scandinavian origin or inspiration discovered in Ireland, England, and Frankia, the archaeology of Viking Age Denmark reinforced nineteenth-century attitudes of colonization and the Scandinavian expansion as a 'Viking Achievement.'[30] At the same time, anachronistic definitions of kingship and governance continued a narrative that Scandinavian kings were little more than sea-men and pirates.[31]

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[28] J. J. A. Worsaae, *En Oldgrandskers Erindringer* (Nordisk Forlag, 1935).; Jørgen Jensen and J. J. A. Worsaae, *Et archæologisk vikingetog : J.J.A. Worsaaes rejse til England, Skottland og Irland 1846-47* (København: Nationalmuseet, 2007).

[29] Johannes Brøndsted, *Danmarks oldtid : 3 : Jernalderen*, 2. udg. ed., vol. 3 (København: Gyldendal, 1960).

[30] Peter Foote and David M. Wilson, *The Viking achievement : the society and culture of early medieval Scandinavia* (London: Sidgwick & Jackson, 1970).; cf. Sarah Croix, "The Vikings, victims of their own success? A selective view on Viking research and its dissemination," *Danish Journal of Archaeology* 4, no. 1 (2016), https://doi.org/10.1080/21662282.2015.1133944.

[31] Erik Lönroth, "The Baltic countries," in *Cambridge Economic history of Europe III. Economic organization and policies in the Middle Ages* (Cambridge: University of Cambridge Press, 1963); Erik Lönroth, *Scandinavians. Selected historical essays* (Göteborg, 1977).

Two major overviews of Viking Age Danish archaeology appeared in 1980: Else Roesdahl's *Danmarks Vikingetid* and Klavs Randsborg's *The Viking Age in Denmark: The Formation of a State*.[32] Because these works were published nearly in tandem, comparisons were inevitable: Roesdahl's book was considered "that of a specialist in full command of the material,"[33] while Randsborg's study had "made too many assumptions and drawn overly simplistic conclusions about complex problems."[34] Roesdahl did not offer any new theories on the archaeological material available to her. Instead, she compiled a comprehensive overview of a particular place and time, synthesizing evidence to create a holistic picture of life in Viking Age Denmark. The book is divided into chapters focusing on daily life and activities of the various Danish communities. This, then, is a study of the people of Denmark, not just the elite, and she attempts to understand rural and agricultural populations as well as those who resided in the growing urban centers at Ribe and Hedeby. However, the narrative itself is limited, both because Roesdahl refuses to make a strong argument about what the combined evidence could suggest, but also because she actively chooses to almost totally exclude primary textual sources. Roesdahl's work has become canon in archaeological studies of Viking Age Scandinavia.

Where Roesdahl created a useful handbook of Viking Age material culture, Randsborg presented a wildly speculative study that was both under-developed and ahead of its time. Both archeologists and historians have criticized it, and Jenny Jochens has suggested, "the author's conclusions are at times farfetched."[35] However, when Randsborg first presented his hypotheses surrounding the early formation of the Danish state and its political, social, and economic development, the idea of a centralized Danish kingdom was highly controversial: "certainly one of the least agreed-upon subjects in Viking scholarship."[36] Just twenty years later, a new generation of archaeologists not only agreed with Randsborg's theories but also were actively building on them. Tina Thurston's *Landscapes of Power, Landscapes of Conflict: State Formation in the South Scandinavian Iron Age*, which is an important study on the formation of the Danish kingdom in its own right, credits Randsborg with changing the way that archaeologists considered approaching evidence, "by examining Denmark on a larger, regional scale."[37] Indeed, Thurston's work – an adaptation of her doctoral thesis – can be viewed as a direct successor to Randsborg. She organizes her data to include textual sources, place-names, site layout, artifact distribution, and burials patterns, and the summary of her conclusions is definitive, concise, and persuasive.

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[32] Else Roesdahl, *Danmarks Vikingetid* (København: Gyldendal, 1980).; Klavs Randsborg, *The Viking Age in Denmark: The Formation of a State* (London: Duckworth, 1980).

[33] Christopher D. Morris, "Else Roesdahl, "Viking Age Denmark" (Book Review)," (London: London: Society for Medieval Archaeology, 1984), 272.

[34] John J. Kudlik, review of The Viking Age in Denmark: The Formation of a State, Klaus Randsborg, *Scandinavian Studies* 54, no. 2 (1982): 161, http://www.jstor.org/stable/40918208.

Just as Randsborg and Roesdahl appeared side-by-side, Thurston's book appeared at the same time that Ulf Näsman began publishing his own theories regarding early Danish state formation. Näsman is perhaps less well-known because his arguments for the Danish kingdom have not appeared in their own monograph, but instead can be found in a series of concise and convincing articles and book chapters.[38] More than Randsborg, Roesdahl, or Thurston, Näsman's research looks at the big picture of state formation against the backdrop of viking activity. In 2000, he proposed that during the early ninth century, "the first [of] many Danish expeditions seem to have been formed on royal initiative," and that they are "best understood as elements of a national policy of the Danish kings against Franks and Saxons led by Charlemagne and his successors."[39] This controversial statement is not without merit, however, and while scholars have not yet fully examined its implications, I will argue positively for this claim in Chapter 5.

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[35] Jenny M. Jochens, review of The Viking Age in Denmark: The Formation of a State, Klavs Randsborg, *The Journal of Interdisciplinary History* 12, no. 4 (1982): 688, https://doi.org/10.2307/203555, http://www.jstor.org/stable/203555.

[36] Kudlik, 160.

[37] Tina L. Thurston, *Landscape of Power, Landscapes of Conflict: State Formatoin in the South Scandinavian Iron Age*, ed. G. M. Feinman and T. D. Price, Fundamental Issues in Archaeology, (New York: Kluwer Academic / Plenum Publishers 2001), xi.

Over a generation after Randsborg published his "infuriating"[40] study, scholars now generally accept that a hereditary group based out of Fyn had united polities and territories into a unified Danish kingdom during the eighth century; the archaeological evidence is too strong to ignore.[41] While Näsman acknowledged that the process of unification was a long - and no doubt fraught - process, he has also called for a more focused study of the early Viking Age:

> "To mix events of the ninth century with those of the tenth or eleventh can only blur the picture. To treat the activities of the Norwegian Vikings in the North Atlantic in the same breath as the Danish actions along the North

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[38] Ulf Näsman, "Raids, Migrations, and Kingdoms," *Acta archaeologica* 71, no. 1 (2000), https://doi.org/10.1034/j.1600-0390.2000.d01-1.x; Ulf Näsman, "Danerne og det danske kongeriges opkomst: om forskningsprogrammet "Fra stamme til stat i Danmark"," *Fra stamma til stat i Danmark* (2006); Ulf Näsman, "Exchange and politics: the eighth-early ninth century in Denmark," in *The Long Eighth Century*, ed. Inge Lyse Hansen and Chris Wickham (Leiden, Boston, Köln: Brill, 2000).

[39] Näsman, ""Raids, Migrations, and Kingdoms KINGDOMS."

[40] Kudlik, 160.

[41] Else Roesdahl, "The ermegence of Denmark and the reign of Harald Bluetooth," in *The Viking World*, ed. Stefan Brink and Neil Price (London and New York: Routledge, 2008).; See also: O. Olsen, *Da Danmark blev til* (Copenhagen: Fremad, 1999).

> Sea littoral or the Swedish operations in the Baltic-Bothnian area can only be misleading."[42]

This quote serves as both an inspiration and a foundation to this project. By looking beyond the boundaries of modern borders, it becomes clear that different geographical regions drove and reacted to different Viking activity.

In summary, scholars have long agreed that the various tribes of the Danes had solidified into a collective people since at least the beginning of the ninth century. To what extent and purpose has changed as more archaeological discoveries have either come to light or come under new consideration over the course of modern scholarship. However, there has been little critical examination of how the Danish state played a major role in viking activity throughout Atlantic Europe.

1.III Norway

"The assembly of Norway into one kingdom – the unification of a number of areas with organized rule into a larger unit under one king – has been and still is the central theme for Norwegian historical research into the period before AD 1130."[43]

The study of the Viking Age in Norway has been part of the academic consciousness since at least the 16th- century due to interest in the medieval Old Norse sagas. The families of the Icelandic sagas claimed hereditary lineage to the nobility of Viking Age Norway, and the kings' sagas relate the exploits of Norwegian kings. These literary influences captured the Norwegian imagination in the early 19th-century, when Norway was ceded by Denmark to Sweden, and the case for independence took root. While not seduced by a romantic vision of Vikings in themselves, historians such as Jacob Rudolph Keyser and Peter Andreas Munch applied Old Norse literature with its setting in the Viking Age to argue that the Norwegians were “more genuinely ‘Nordic’ than Swedes and Danes.”[44] Ernst Sars would take this further in his four-volume survey on the history of Norway, where he argued that an identifiable Norwegian people (as distinct from ‘Danes’ and ‘Swedes’) had coalesced from a multitude of Germanic tribes by the period of the Viking Age.[45]

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[42] Näsman, "RAIDS, MIGRATIONS, AND KINGDOMS."

[43] Per Sveaas Andersen, *Samlingen av Norge og kristningen av landet : 800-1130*, vol. B. 2 (Bergen: Universitetsforl., 1977), 40-1.; Translation my own.

19th-century Norwegian archaeologists were very interested in their cultural prehistory, even if they had not quite latched onto the idea of a glorified Viking. Nicolay Nicolaysen produced a survey of prehistoric monuments in the 1860s, and Oluf Rygh published a quantitative survey of over 2500 Iron Age artefacts from within the boundaries of Norway.[46] The discovery of Viking Age ship burials at Borre (1852), Tune (1867), and Gokstad (1880) continued the argument for superior Norwegian Nordic-ness stemming back to prehistory.[47] This reached a head in 1904 with the discovery of the Oseberg ship, and the subsequent publication of both the four-volume monographs series of the excavation’s finds and Gabriel Gustafson's *Norges oldtid: Mindesmærker og oldsager* in 1906.[48] These publications, with contributions by Gustafson, Shetelig, Brøgger, and Grieg, elicited strong patriotism from the Norwegian people, who had received their independence from Sweden in 1904. The Nazis ultimately exploited these feelings during their occupation in Norway, which naturally resulted in a distancing of this romanticism of the Viking Age after the end of World War II.[49]

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[44] Svanberg, *Decolonizing the Viking age*, no. 43, 37. See: Peter A. Munch, *De tœ norske Folks Historie* (Christiania: Christiania: Tønsberg, 1852).; R. Keyser, *Samlede Afhandlinger* (Christiania: Christiania: PT. Malling, 1868).n

[45] Ernst Sars, *Udsigt over den norske historie* (Kristiania: Kristiania: Cammermeyer, 1873).

[46] N. Nicolaysen and bevaring Foreningen til norske fortidsminnesmerkers, *Norske fornlevninger : en oplysende fortegnelse over Norges fortidslevninger, ældre en reformationen og henførte til hver sit sted* (Kristiania: Foreningen til Norske fortidsminnesmerkes bevaring, 1862).; O. Rygh, *Om den yngre jernalder i Norge* (Kjøbenhavn: s.n., 1877).

[47] Svanberg, *Decolonizing the Viking age*, no. 43, 36-46.

From the 1950s, scholars focused their efforts on understanding the *how* of Norwegian unification. Andreas Holmsen, who first published *Fra de eldste tider til 1600: Norges historie 1* in 1939, gained traction following the appearance of revised editions in 1949 and 1961.[50] Holmsen pushed the idea a flat hierarchy in Norway, wherein the rulering and peasant classes equally contributed to the unification of the kingdom during the Viking Age. Charles Joy and Erik Gunnes both picked up on Holmsen's themes, with the former arguing that the Norwegian people ("Nordmenn") operated within a defined border separate from the Swedes and the Danes, and the latter professing a North Atlantic Norwegian empire during the Viking Age.[51]

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[48] Gabriel Gustafson, *Norges Oldtid: Mindesmærker og Oldsager*, Gammel norsk kultur i tekst og billeder, (Kristiania: Cammermeyer, 1906).; A. W. Brøgger et al., *Osebergfundet : 1*, vol. 1 (Oslo: Distribuert ved Universitetets Oldsaksamling, 1917); A. W. Brøgger et al., *Osebergfundet : 2*, vol. 2 (Oslo: Distribuert ved Universitetets Oldsaksamling, 1928); A. W. Brøgger et al., *Osebergfundet : 3*, vol. 3 (Oslo: Distribuert ved Universitetets Oldsaksamling, 1920); A. W. Brøgger et al., *Osebergfundet : 5*, vol. 5 (Oslo: Distribuert ved Universitetets Oldsaksamling, 1927); Arne Emil Christensen et al., *Osebergfundet : B. 4 : Tekstilene*, vol. B. 4 (Oslo: Distribuert ved Universitetets Oldsaksamling, 2006).

[49] Lise Nordenborg Myhre, "Arkeologi og politikk: en arkeo-politisk analyse av faghistoria i tida 1900-1960" (26 Universitetets oldsaksamling, 1994).

[50] Andreas Holmsen, Magnus Jensen, and Andreas Holmsen, *Fra de eldste tider til 1660*, 3. utg. ed., vol. 1, Norges historie, (Oslo: Universitetsforl., 1961).

[51] Charles Joy, "Vikingtid: Høvdinger, jarler og konger," in *Forhistorisk tid og vikingtid*, ed. Anders Hagen et al., vol. 1 (Oslo: Aschehoug, 1962), 299-335.; Erik Gunnes, *Rikssamling og kristning : 800-1177*, 3. utg. ed., vol. B. 2 (Oslo: Cappelen, 1995).

Between the 1970s and the early 2000s, the scholarship was dominated by the views of Per Sveaas Andersen and Claus Krag. Andersen is resolute in his belief that a distinct Norwegian history was in operation by the year 800, and is interested in narrating the unification of Norway through territorial politics, beginning with the (semi-legendary) kingship of Harald Fairhair.[52] For Krag, while a Norwegian society existed during the Viking Age, the unification of Norway could not be established in any meaningful way until the mid-11th-century.[53]

Following the publication of the Kaupang Excavation Project from 2007, with the economic implications of a thriving *emporium* in the Oslo Fjord, discussion has moved slightly away from Norwegian unification and towards how different regions of Norway were controlled and operated during the Viking age. Dagfinn Skre has demonstrated that there were distinct economic differences between the Oslo fjord and the West Coast, despite being connected by a shared culture and trade network. However, his quest to uncover a palace complex in Avaldsnes suggests that he too is not immune to the national urge towards uncovering a clear story of Norwegian kingship and unification.[54] That being said, the evidence uncovered by

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[52] Andersen, *Samlingen av Norge og kristningen av landet: 800-1130*, B. 2.

[53] Claus Krag, "The creation of Norway," in *The Viking World*, ed. Stefan Brink and Neil Price (London and New York: Routledge, 2008); Claus Krag, Knut Helle, and Trond Bjorli, *Vikingtid og rikssamling : 800-1130*, vol. 2 (Oslo: Aschehoug, 1995).

[54] Dagfinn Skre and undersøkelsen Kaupang, *Kaupang in Skiringssal*, vol. 22, Norske oldfunn (trykt utg.), (Århus,Oslo: Aarhus University Press Kaupang Excavation Project, University of Oslo, 2007); Dagfinn Skre and undersøkelsen Kaupang, *Means of exchange : dealing with silver in the Viking Age*, vol. 23, Norske oldfunn (trykt utg.), (Århus,Oslo: Aarhus University Press Kaupang Excavation Project, 2008); Dagfinn Skre, "Monetary Practices in Early Medieval Western Scandinavia (5th-10th Centuries ad)," *Medieval archaeology* 61, no. 2 (2017), https://doi.org/10.1080/00766097.2017.1374096; Dagfinn Skre, "Norðvegr - Norway: From Sailing Route to Kingdom," *European Review* 22, 1 (2014); Dagfinn Skre, *Rulership and Ruler's Sites in 1st–10th-century Scandinavia* (Walter de Gruyter, 2020); Dagfinn Skre, *Rulership in 1st to 14th century Scandinavia : royal graves and sites at Avaldsnes and beyond*, 114 (Berlin: Walter de Gruyter GmbH, 2019); Lars Pilø et al., *Things from the Town. Artefacts and Inhabitants in Viking-age Kaupang* (Aarhus Universitetsforlag, 2011).

Dagfinn Skre and his colleague does suggest that a general realingment of ninth-century Norse politics did indeed occur along the west coast of Norway.

In summary, Norwegian scholars utilized the Viking Age to further their romantic and nationalist cause for independence from (first Denmark) and then Sweden. These ideas were strengthened by the discovery of Viking ship burials, especially the Oseberg ship, which instilled the Norwegian people with a distinct sense of Nordic superiority. This emotion was exploited by the Nazis and thereafter abandoned in the post-war period, wherein scholars have since sought to identify the particulars of Norwegian unification. Despite more focus on trade and social networks, the study of the Viking Age in Norway remains firmly interested in what occurred within the modern borders of the state.

1.IV Ireland

“The historiography of the Vikings in Ireland is a story of periodic progress countered by resolute recidivism.”[55]

Modern historical and archaeological studies of the Vikings in Ireland began in the 1830s, when major industrial and construction works began to uncover and recognize artefacts of early medieval Scandinavian origin.[56] These major archaeological discoveries coincided with the arrival of Worsaae in collaboration with the National Museum of Copenhagen, with Worsaae later stating that his journey "was an archaeological Viking assault" on the British-Irish understanding of Norse monuments and artefacts.[57] However, interest in the history and artefacts of Viking Age objects in Ireland died down until the end of the nineteenth-century, likely in response to a growing sense of Irish nationalism. Scholastic interest renewed in the 1880s following the posthumous publication of Charles Haliday's *The Scandinavian Kingdom of Dublin*, and in Norway archaeologists began to reexamine the vikings in Ireland thanks to the proliferation of the published Irish annalistic corpus, resulting in works by P.A. Munch, Sophus Bugge, and ultimately in L.J. Vogt's *Dublin som norsk by.*[58] It was Sophus's son, Alexander Bugge, who was the first to foreground the idea that the Scandinavian presence continued past the Battle of Clontarf in 1014, which had/has traditionally been seen as a "viking defeat" at the hands of Brian Boru.[59]

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[55] Howard B. Clarke and Ruth Johnson, "Ireland the Viking Age," in *The Vikings in Ireland and beyond: before and after the Battle of Clontarf*, ed. Howard B. Clarke and Ruth Johnson (Dublin: Four Courts Press, 2015), 1.

[56] Poul Holm, "Between apathy and antipathy: the Vikings in Irish and Scandinavian history," *Peritia* 8 (1994), https://doi.org/10.1484/J.Peri.3.209.; Clarke and Johnson, "Ireland the Viking Age," 2.

While this project does not venture into events of the eleventh-century, a discussion of the historiography surrounding the Battle of Clontarf is necessary. Attitudes by historians surrounding the battle tend to have an influence on their understanding of events during the earlier period; their views can be tracked based on their acceptance and/or analysis of the *Cogadh Gáedhel re Gallaibh*. For example, Eoin Mac Neill countered Alexander Bugge's argument in the early twentieth century, just as Ireland was on the cusp of independence from the United

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[57] Worsaae, *En Oldgrandskers Erindringer*.; Translation by Holm, "Between apathy and antipathy: the Vikings in Irish and Scandinavian history."

[58] Peter A. Munch, *Chronica regum Manniae et insularum: Theœ Chronicle of Man and the Sudreys* (Christiania: Christiania: Brøgger & Christie, 1860).; Sophus Bugge et al., *Norsk Sagaskrivning og Sagafortælling i Irland* (Kristiania: Grøndahl, 1908).; L. J. Vogt, *Dublin som norsk By : fra vort ældste Kjøbstadsliv : historisk Fremstilling* (Christiania: Aschehoug, 1896).

[59] Alexander Bugge, "Bidrag til det sidste Afsnit af Nordboernes Historie i Irland," *Aarbøger Nord oldkyndighed og historie* 19 (1904).

Kingdom.[60] He viewed the Battle of Clontarf “as the decisive test of strength between the Irish nation and the foreign conquerors,” and “his exposition was, of course, to be understood as a parallel tale to the conquest of the Normans.”[61] The Reverend John Ryan published his own article, “The Battle of Clontarf,” in 1938, which further entrenched scholastic agreement that 1014 was a defining year in the historical tradition of Ireland, despite his recognition that contemporary writers placed greater emphasis on the Battle of Glenn Máma in 999. It was not until the twelfth century that the dynasties of Ireland began to distinguish Clontarf as a decisive military endeavor. For Ryan, “National instinct is rarely at fault in matters of such significance. Clontarf was undoubtedly a great battle. All the stronger is the reason why its character should not be misconceived.”[62] Similarly, A. J. Goedheer’s influential thesis largely concluded that the *Cogadh Gáedhel re Gallaibh* was propagandistic and “for a great part legendary rather than historical.”[63] Yet both Ryan and Goedheer reach conclusions contradictory to their analyses: the sources are not to be trusted, but we must trust the sources. The Catholic and nationalistic viewpoint was therefore maintained throughout this generation and the next.

After nearly two decades of general silence on the subject, Dublin hosted the First International Congress of Celtic Studies in 1959, focusing on the impact of the Norse invasions.[64] Despite a meeting of specialists from the British and Irish Isles and Scandinavia, Daniel A. Binchy's paper stands out for its inherent nationalism, in which he argues that the Norse arrival in Ireland produced "a profound – one might even say a shattering – effect upon native institutions."[65] This was a nationalism of a different kind than the generations prior; whereas Mac Neill, Ryan, and Goedheer had stressed the Battle of Clontarf marked the triumph of Irish influence over the Norse only to falter before the all-conquering Normans, for Binchy the decline of Irish culture began with the arrival of the vikings.

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[60] Eoin MacNeill, *Phases of Irish history* (Dublin: Gill & Son, 1919).

[61] Holm, "Between apathy and antipathy: the Vikings in Irish and Scandinavian history."

[62] John Ryan, "The Battle of Clontarf," *The Journal of the Royal Society of Antiquaries of Ireland* 8, no. 1 (1938): 47-8, http://www.jstor.org/stable/25510093.

[63] Albertus Johannes Goedheer, *Irish and Norse traditions about the battle of Clontarf*, vol. 9, Nederlandsche bijdragen op het gebied van Germaansche philologie en linguistiek, (Haarlem: Tjeenk Willink, 1938), 103.

[64] Brian Ó Cuív, ed., *The Impact of the Scandinavian Invasion on the Celtic-speaking Peoples c. 800-1000 AD: Introductory Papers at Plenary Sessions of the International Congress of Celtic Studies held in Dublin, 6-10 July, 1959* (Dublin: Dublin Institute of Advanced Studies, 1962).

Binchy's argument was succinctly challenged by A.J. Lucas, the director of the National Museum of Ireland, in 1966, when he suggested that an "emotional religious element" had blurred critical analyses of the evidence.[66] Lucas's evidence stemmed from an analysis of raids on churches in early medieval Ireland, in which he demonstrated that the Irish themselves plundered and burned churches as much, if not more, than the Norse invaders. Lucas's contemporary, Peter Sawyer, further agreed that the *Cogadh Gáedhel re Gallaibh* is "fiercely partisan and gives a distorted impression not only of Brian Boromha but of the importance of the Battle of Clontarf itself."[67] Sawyer, although English, focused on the Vikings in England, and Ireland, and the general Irish Sea Region. He went on to divide the Viking Age into two distinct periods, split roughly between the ninth and the tenth centuries.

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[65] D.A. Binchy, "The passing of the old order," in *The Impact of the Scandinavian Invasion on the Celtic-speaking Peoples c. 800-1000 AD: Introductory Papers at Plenary Sessions of the International Congress of Celtic Studies held in Dublin, 6-10 July, 1959*, ed. B. Ó Cuív (Dublin: Dublin Institute of Advanced Studies, 1962), 119.; Francoise Henry also presented at the conference, where she suggested that the Norse impact on Celtic art has been "catastrophic." F. Henry, "The effects of the Viking invasions on Irish art," in *The Impact of the Scandinavian Invasion on the Celtic-speaking Peoples c. 800-1000 AD: Introductory Papers at Plenary Sessions of the International Congress of Celtic Studies held in Dublin, 6-10 July, 1959*, ed. B. Ó Cuív (Dublin: Dublin Institute of Advanced Studies, 1962).

[66] A. T. Lucas, "Irish-Norse relations: time for a reappraisal?," *JCHAS* 71 (1966).

[67] P. H. Sawyer, *The age of the vikings* (London: Arnold, 1962), 28.; Máire Ní Mhaonaigh has shown that the *Cogadh Gáedhel re Gallaibh* dates between 1103 and 1113, and that it was likely the sources of the belief that the vikings wrought such cultural and geopolitical destruction.

Despite a clear English bias and several contradictory conclusions,[68] Sawyer must be credited for moving the field of Viking Studies forward and pushing for a more holistic understanding of the period.

On the back of Lucas and Sawyer, Donnchadh Ó Corráin published his 1972 survey, *Ireland before the Normans*, in which he focuses a chapter on the Irish Viking Age. His conclusions suggest minimal impact by the Norse: the Norse may have served as mercenaries in battles such as at Clontarf, but they were generally superfluous within Irish history.[69] Ó Corráin wrote his survey without the benefit of archaeological science, though major excavations in Dublin followed within a few years. Archaeologist Patrick F. Wallace, who led the Wood Quay and Fishamble Street excavations in Dublin from 1974 to 1981, developed Ó Corráin's minimalist theory further. Despite uncovering building foundations, plots, pathways, and artifacts indicative of the daily lives of Dublin's inhabitants, archaeologists recovered no evidence to suggest that the Norse had established a substantial settlement by the end of the ninth century.[70] For them, this suggested that not only did the Norse have a minimal impact on Ireland, but that the Norse settlements were generally isolated encampments..[71] Linzi Simplson has since demonstrated that this view point may have been formed because Wallace was simply digging in the wrong place, and that a site closer to the castle complex could have provided earlier evidence for settlement.[72]

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[68] For example, Sawyer suggests that the viking raids were the result of overpopulation in Scandinavia, and yet he concludes that the Norse never extensively settled Ireland for agricultural purposes.

[69] Donncha Ó Corráin, James Lydon, and Margaret MacCurtain, *Ireland before the Normans*, vol. 2, The Gill history of Ireland, (1972).

[70] Patrick F. Wallace, *Viking Dublin : the Wood Quay excavations* (Sallins, Co. Kildare: Irish Academic Press, 2016).

[71] Wallace 1987, 239, 235.

Maurice F. Hurley excavated Viking Age Waterford between 1986 and 1992; he published his report in 1997.[73] The Irish Annals suggest that there was a continuous Norse presence in the area, if not on the site of the present day city, however Hurley writes that he and his team recovered no material dating to the ninth or tenth century. On the other hand, excavations at Woodstown, Co. Waterford and Annagassan, Co. Louth have produced evidence for ninth-century Norse settlements, but neither proven to be permanent nor substantial.[74] This has resulted in a point of contention for archaeologists and historians alike. Do we agree with Helen Clarke and Björn Ambrosiani, who suggest, “it is in Ireland that we can look to a blueprint of what Scandinavians would have thought to be a ‘real town,’”, or is Howard B Clarke correct in his assertion that even until the end of the tenth-century, Ireland remained “a land with a minimum trend towards urbanization”?[75] However, archaeologists including John Bradley, John Ó Néill, Raghnall Ó Floinn and to an extent Elizabeth O’Brien, have increasingly demonstrated that the study of Viking Age Ireland benefits from a shift away from urban archaeology.[76] The evidence for rural settlement is problematic, of course; Clondalkin must be considered a military site, as mentioned in the Irish Annals, while Kilmainham-Islandbridge is likely a nucleated settlement, as supported the large number burials in the area.

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[72] Linzi Simpson, *Director’s Findings: Temple Bar West* (Dublin: Temple Bar Propterties, 2007).

[73] Maurice F. Hurley et al., *Late Viking Age and Medieval Waterford : excavations 1986-1992* (Waterford: Waterford Corporation, 1997).

[74] Ian Russell and Maurice F. Hurley, *Woodstown : a Viking settlement in Co. Waterford* (Dublin: Four Courts Press, 2014).; Micheál McKeown, "Annagassan, A Study of the Viking Longphort," *Journal of the County Louth Archaeological and Historical Society* 26, no. 1 (2005), https://doi.org/10.2307/27729968, http://www.jstor.org/stable/27729968.

[75] Helen Clarke and Björn Ambrosiani, *Towns in the Viking age* (Leicester: Leicester University Press, 1991).; Howard B. Clarke, "King Sitriuc Silkenbeard: a great survivor," in *The Vikings in Ireland and beyond: before and after the Battle of Clontarf*, ed. Howard B. Clarke and Ruth Johnson (Dublin: Four Courts Press, 2015), 253.

In 2008, Mary Valante produced an influential monograph that focuses on the economic and social influence of the Norse in Ireland.[77] The work serves as a solid foundation for understanding Ireland as it was when the Norse arrived on its shores, and she provides a clear narrative as to why and how the Norse were able to build their *emporia* and establish a sea-trade empire on a rural and relatively isolated island. However, this narrative is sometimes too linear and many of her theories lack positive evidence, relying instead on contemporary omissions and guesswork. For example, she utilizes Latin identifiers in the Annals of St-Bertin to argue for a difference between the *Dani* and the *Nordmanni* between 836 and 850, although Frankish sources use them interchangeably in many other instances.[78] Furthermore, she seems to take her assessment of the economy of Ireland as “clearly non-urban, kin-based, and largely localized” to the extreme, conceptualizing isolated communities lacking the ability or motivation to trade or travel further afield.[79] While not a conclusive study, the monograph remains an important contribution to the field of Viking Age Irish studies.

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[76] John Bradley, "The Interpretation of Scandinavian Settlement in Ireland," in *Settlement and Society in Medieval Ireland; Studies presented to F.X. Martin*, ed. John Bradley (Kilkenny: 1988).; John Ó Néill, "A Norse Settlement in Rural County Dublin," *Archaeology Ireland* 13, no. 4 (1999), http://www.jstor.org/stable/20558847.; Raghnall Ó Floinn, "The archaeology of the early Viking Age in Ireland," in *Ireland and Scandinavia in the Early Viking Age*, ed. Howard B. Clarke, Maíre Ní Mhaonaigh, and Raghnall Ó Floinn (Dublin: Four Courts Press, 1998).; Elizabeth O'Brien, "The Location and Context of Viking Burials at Kilmainham and Islandbridge, Dublin," in *Ireland and Scandinavia in the Early Viking Age*, ed. Howard B. Clarke, Maíre Ní Mhaonaigh, and Raghnall Ó Floinn (Dublin: Four Courts Press, 1998).

[77] Mary A. Valante, *The Vikings in Ireland: settlement, trade and urbanization* (Dublin: Four Courts Press, 2008).

[78] Valante, *The Vikings in Ireland*, 62.

Because of Dublin’s tenth-century connection to York, no historiography of the Norse in Ireland is complete without a discussion of the connections between the two centers. In the 1970s, Alfred Smyth published a trilogy of volumes, which sought to establish “the essential unity of Viking activity in Dublin and northern England” during the ninth century.[80] In his review of Smyth’s work, Christiansen referred to this as Ívarr’s “Odinic *imperium.*” This tongue-in-cheek criticism serves to highlight Smyth’s over-reliance on the semi- and legendary Icelandic saga material, as well as other later and less reliable sources.[81] However, despite the repudiation of his theories by the vast majority of scholars, Smyth remains part of the Viking Studies canon, and therefore his work must be discussed.

Clare Downham’s *Viking Kings of Britain and Ireland: The Dynasty of Ívarr to A.D. 1014* serves as the most recent historical addition to this study, focusing her efforts on tracing the Ivarsson dynasty.[82] Downham laudably relies on contemporary and near contemporary sources, eschewing legendary and later readings. However, her choice to organize her chapters by region and/or modern state (Ireland, England, Northern Britain, the Scottish Islands, and Wales) disrupts the chronological narrative of the dynasty, and complicates understanding of the movement, failures, and successes of the Ivarssons. It is because of these regional divisions that a very important point is overlooked: there is no strong evidence to connect Dublin and York during the early- to mid-ninth century; this connection, or lack thereof, will be explored more fully in Chapter 5. A more holistic approach, which puts the dynasty at the center of the narrative perspective, would have served to complete the story she told and avoid dangerous anachronistic retrospectives.

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[79] Valante, *The Vikings in Ireland*, 15.

[80] Alfred P. Smyth, *Scandinavian kings in the British Isles, 850-880* (Oxford: Oxford University Press, 1977), 264.; See also: Alfred P. Smyth, *Scandinavian York and Dublin : the history and archaeology of two related viking kingdoms : 1*, vol. 1 (Dublin: Templekieran Press, 1975).; Alfred P. Smyth, *Scandinavian York and Dublin : the history and archaeology of two related viking kingdoms : 2*, vol. 2 (Dublin: Templekieran Press, 1979).

[81] Eric Christiansen, review of Scandinavian York and Dublin. The History and Archaeology of Two Related Viking Kingdoms, Alfred P. Smyth, *The English Historical Review* 96, no. 381 (1981): 848, http://www.jstor.org/stable/569848.

[82] Clare Downham, *Viking kings of Britain and Ireland: the dynasty of ́Ívarr to A.D. 1014* (Edinburgh: Dunedin Academic Press, 2007).

Tom Horne's 2022 monograph, *A Viking Market Kingdom in Ireland and Britain,* largely serves as an archaeological companion to Downham's monograph by surveying the archaeological links between Dublin and York.[83] Drawing on network theory, which has become increasingly popular in study of Viking Age Scandinavian archaeology, Horne suggests that the Ivarssons created a "network-kingdom," and that royally supervised nodal markets, such as Hedeby and Kaupang, provided the structural model within which the Ivarssons shaped their centers at Dublin and York. Despite the rising dominance of Sea Kings in the Irish Sea Region, Horne suggests that the Ivarssons made use of land routes, such as the 'Cuerdale Corridor,' for communication. While the archaeological evidence he presents is compelling, there is little evidence to suggest that it was the Ivarssons doing the connecting.

The problem with all of the above Dublin-York studies is the lack of positive evidence for early- to mid-ninth century Viking Age activity. Arguments for a connection between Dublin and York in the period c. 866-902, which marks the taking of York by the Great Army to the expulsion of the Dublin elite by Irish forces, are based on the belief that King Ívarr of Dublin was also active in the Great Army's conquests in Britain c. 865 to his death in the early 870s. This Ívarr is often further conflated with the semi-legendary Ivar the Boneless, son of the legendary warrior-king Ragnarr Loðbrók. There is no doubt that the kings of Dublin took an active interest in York during the tenth century, and furthermore the Cuerdale hoard links Dublin and York following the 902 expulsion of Dublin's leaders, however the archaeological and textual evidence is incongruous when considering ninth-century Norse connections between the two nodes. This has resulted in scholars reaching all-or-nothing conclusions: scholars who dismiss the early ninth-century connection tend isolate Dublin within a purely localized Irish context, whilst those who link Dublin with York harbour aspirations for an Ivarsson empire.

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[83] Tom Horne, *A Viking Market Kingdom in Ireland and Britain: Trade Networks and the Importation of a Southern Scandinavian Silver Bullion* (London and New York: Routledge, 2022).

In summary, Ireland remains largely insular in conceptions of Viking Age events, both literally and metaphorically. This thesis holds that both traditional and modern scholars view the Norse in Ireland as interlopers and aggressors, which they certainly were during the early medieval period, but have yet to reconcile with the idea that those living in Ireland today are direct descendants of a mixed Hiberno-Norse heritage.

1.V England

"The implication seems to be that if the numbers of 'Danes' and 'English' could somehow be determined precisely, then all other pieces of the Danelaw jigsaw would instantly fall into place, and the baffling complexities of the linguistic, toponymic, and material evidence would resolve themselves into a

comprehensible picture of the history of eastern England in the ninth to eleventh centuries.”[84]

England, like Ireland, has used the Viking Age to further nationalist propaganda. During the nineteenth-century, the Victorians effectively weaponized the idea of King Alfred ‘the Great’ and the superiority of the (Christian) Anglo-Saxons over the barbarian viking invaders as a justification for the expansion of empire and English rule.[85] However, by the end of the Second World War, there was greater acceptance, and thereby interest, in the idea of Norse settlement and the establishment of the Danelaw. The research shifted towards numbers: how large was the Great Army and to what extent did they settle in England? In 1947, Frank Stenton published *Anglo-Saxon England*, where he explored toponymic evidence and suggested that Norse armies were comprised of large bands of warriors and that the number of Norse immigrants that settled in England during and after the period of Great Army warfare was quite extensive.[86] R.H.C. Davis and Peter Sawyer challenged this assumption in 1957 and 1958, respectively, indicating that the numbers presented in the primary sources had been over-stated.[87] In *The Age of the Vikings,* Sawyer went so far as to suggest that, “the Scandinavians do not seem to have made a distinctive mark on England.”[88] More recently, Dawn Hadley has expressed frustration that Sawyer's survey "has shaped the terms of the debate over the Scandinavian impact on England," which does not prove conducive to furthering the state of the research.[89] Similarly, Simon Trafford has suggested that our obsession with numbers has sidetracked more important topics of debate.[90]

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[84] S. Trafford, "Ethnicity, migration theory and the historiography of the Scandinavian settlement of England," in *Cultures in contact: Scandinavian settlement in England in the ninth and tenth centuries*, ed. D. M. Hadley and J. D. Richards (Turnhout: Brepols, 2000), 19.

[85] Wawn, *The Vikings and the Victorians : inventing the old north in nineteenth-century Britain*.; David Pratt, *The political thought of King Alfred the Great*, vol. 67, Cambridge studies in medieval life and thought. 4th series, (Cambridge: Cambridge University Press, 2007).

[86] F. M. Stenton, *Anglo-Saxon England*, 2nd ed. ed., vol. 2(1947) (Oxford: Clarendon Press, 1947).

[87] R. H. C. Davis, "East Anglia and the Danelaw," *Transactions of the Royal Historical Society* 5 (1955): 29-30, https://doi.org/10.2307/3678896.; Peter Sawyer, "The density of the Danish settlement in England," *University of Birmingham Historical Journal* 6, 1 (1958): 5.

[88] Sawyer, *The age of the vikings*, 173.

There have been concerted efforts to move the question of 'how many' towards analyses of 'who,' 'what,' and 'how?' However, the focus remains firmly on England and the English as the central narrative. Julian Richards's states in the introduction of his 2004 monograph *Viking Age England* that the book follows two themes: (1) "what was the Scandinavian contribution to the development of Late Saxon England," and (2) "what was the native response to Scandinavians in the areas settled."[91] In Hadley's 2006 *The Vikings in England: Settlement, Society and Culture*, she stresses: "it is apparent that the Scandinavian settlement in England proceeded along different lines from other regions of north-western Europe," which is true, but only to an extent, and will be discussed later in Chapter 5.[92] While both Richards and Hadley have produced multiple volumes researching the Vikings in England, and strongly countering nationalist tendencies, by confining these specific studies within modern national boundaries, scholars remain in danger of using the Vikings as a foil to national narratives instead of understanding the Vikings in their own right.[93]

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[89] Dawn M. Hadley, *The vikings in England: settlement, society and culture*, Manchester Medieval Studies, (Manchester: Manchester University Press, 2006), 4-5.
[90] Trafford, "Ethnicity, migration theory and the historiography of the Scandinavian settlement of England."
[91] J. D. Richards, *Viking Age England*, [New. ed.]. ed. (Stroud: Tempus, 2004).
[92] Hadley, *The vikings in England*.

For example, in 2014 Shane McLeod published *The Beginning of Scandinavian Settlement in England: The Viking 'Great Army' and Early Settlers, c. 865-900,* which was based on his PhD dissertation*.*[94] McLeod utilizes migration theory to investigate the origins of the members of the Great Army and to understand how they appeared to rapidly acculturate themselves within their new English homelands. He concludes that many of the warriors came not only from Scandinavia, but also from Frisia, Frankia, and the British-Irish Islands; he supports this by applying a comprehensive interdisciplinary study of sociological methodology, and genetic, isotopic and archaeological evidence. While the study is unique in that it focuses exclusively on the first and second generations of settlers who carved out and settled in the Danelaw, it remains constrained by limiting itself to an analysis of migration in England. As McLeod himself acknowledges, this is the same group that travelled to Frankia, and that the "army's actions may not reflect a culturally influenced strategy as much as a situation-specific adaptation to circumstance encountered in the field." What does that mean without a full evaluation of situations outside of England?

Archaeological evidence for the permanent presence of the Norse in England, outside of Great Army activity, can be difficult to recognize due to similarities in

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[93] For example, see Richard and Hadley's new monograph: Dawn M. Hadley and Julian D. Richards, *The Viking Great Army and the Making of England* (Thames & Hudson, 2021).

[94] Shane McLeod, *The beginning of Scandinavian settlement in England: the viking 'great army' and early settlers, c. 865-900*, vol. vol. 29, Studies in the early Middle Ages, (Turnhout: Brepols, 2014).

Anglo-Saxon and Norse culture, but clear examples have been identified. Despite excavations at York in the 1970s and 1980s, which produced extensive evidence for Norse presence and control of the city during the Viking Age, archaeologists were hesitant in their interpretation, opting for something akin to Wallace's minimalist theory.[95] Angela Z. Redmond published her PhD dissertation in 2007 wherein she catalogued viking burial in the north of England, which she confined to Northumbria, Cumbria, Westmorland, Yorkshire, Lancashire, and Derbyshire. This has served as the most up-to-date survey on Norse burials in northern England (she positively identified just over 30 Norse graves), but it does not include burials found further south in land that may have been under Norse dominion at one time or other.[96] A map of England's complete list of Norse burials can be found in Julian Richard's 2000 monograph, *Viking Age England*, though the study lacks an itemized survey of the burials included.[97] It is this perceived lack of evidence that lent credence to historians such as Sawyer, who argued for smaller numbers of invaders/settlers. However, new material evidence and re-analysis of previously recovered finds have begun to re-evaluate the quality of Norse activity and settlement, particularly in regards to Great Army encampments. Hadley and Richards have published their analysis of an encampment at Torksey in Lincolnshire, the existence of which is corroborated by the *ASC.*[98] Cat Jarman solved the mystery of the Great Army burial at Repton by recalibrating C14 analysis to take into account the Marine Reservoir Effect, placing the bones first excavated by the Biddles in the 1980s in the correct range to match them with the primary source accounts.[99] In 2021, archaeologists announced that they had identified the site of a previously unknown encampment in Northumbria.[100] The results of these sites have confirmed that the armies were not monolithic war bands, but that they were made up of demographically diverse members, including families, artisans, and merchants, in addition to the presence of warriors.[101] Furthermore, Jane Kershaw has completely altered the way in which we understand Norse settlement and gender based on her study of silver and female jewelry, the majority of which were recovered by metal detectorists.[102]

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[95] Richard Hall, *The Viking dig : the excavations at York* (London: Bodley Head, 1984).
[96] Angela Z. Redmond, *Viking burial in the North of England : study of contact, interaction and reaction between Scandinavian migrants with resident groups, and the effect of immigration on aspects of cultural continuity*, vol. 429, BAR. British series, (Oxford: Hedges, 2007).
[97] Richards, *Viking Age England*, 143.
[98] Dawn M. Hadley and Julian D. Richards, "THE WINTER CAMP OF THE VIKING GREAT ARMY, ad 872–3, TORKSEY, LINCOLNSHIRE," *Antiq. J* 96 (2016), https://doi.org/10.1017/S0003581516000718.

Ben Raffield's 2020 article recently suggested: "it seems clear that there is a need to set aside the broad, generalizing models for the Scandinavian occupation that have their roots in the cultural historical and antiquarian scholarship of the nineteenth and early twentieth centuries."[103] It is possible, of course, that perceptions of the 'Great Army' and the subsequent 'Danelaw' may not survive such a review, but only because the study of the Norse in England must be integrated with the fuller study of the Norse in Western Europe.

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[99] Catrine L. Jarman et al., "The Viking Great Army in England: new dates from the Repton charnel," *Antiquity* 92, no. 361 (2018), https://doi.org/10.15184/aqy.2017.196.

[100] "Northumberland dig: Archaeologists start search for Viking Great Army Camp," *BBC News Online* 2022, https://www.bbc.com/news/uk-england-tyne-63192191.

[101] Ben Raffield, "The Danelaw Reconsidered: Colonization and Conflict in Viking-Age England," *Viking and medieval Scandinavia* 16 (2020), https://doi.org/10.1484/J.VMS.5.121523.

[102] Jane Kershaw, *Viking identities: Scandinavian jewellery in England* (Oxford: Oxford University Press, 2013); Jane F. Kershaw, "Culture and Gender in the Danelaw: Scandinavian and Anglo-Scandinavian Brooches," *Viking and Medieval Scandinavia* 5 (2009), http://www.jstor.org/stable/45019129.

[103] Raffield, "The Danelaw Reconsidered: Colonization and Conflict in Viking-Age England," 213.

1.VI Scotland

"A lack of historical sources means that the date of the earliest Viking incursions into Scotland has gone unrecorded… the lack of written sources presents an even greater problem for dating the establishment of the first Norse settlements in Ireland."[104]

Because of the comparative lack of written records in Scotland, the scholarly narrative of the viking invasions differs across its varied landscapes. Despite its unification by the 15th-century, cultural memory and (re)construction of the Viking Age past differs between Orkney and Caithness, the Outer Hebrides and the western Highlands. Despite coming under Scottish rule by the Early Modern period, the Norse language(s) and culture(s) left a lasting mark on the topography and toponymy of Orkney and Shetland; the peoples of the islands spoke a form of Norse ("Norn") until at least the 19th-century.[105] Stories from *Orkneyinga Saga*, written in Iceland in the medieval period, were familiar to the islanders in the form of folk traditions. As such, excavations by earlier antiquaries tended to search for archaeological evidence to corroborate the narrative of the saga, with oftentimes incorrect results.

Despite a lack of contemporary records from Scotland, much of the discussion surrounding the Norse presence in Scotland focuses on the impact of the Norse on the native peoples. By the end of the eighth century, the western Scottish kingdom of Dál Riata had practically disappeared from the records, though scholars are in disagreement regarding the extent to which the kingdom had dissolved. The Picts – likely more of a tribal confederation than a centralized kingdom – ruled over lands to the east and the north, extending up into the Hebrides and Orkney.[106] The Strathclyde Britons, which were referenced in 872, were likely only a polity in the mid-ninth century, and yet they endured longer than the former two.[107] Indeed, much as in England above, there is speculation regarding whether/how the Norse disrupted the existing geopolitical landscape, resulting in the shaping of Alba, and later Scotland.

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[104] James Graham-Campbell and Colleen E. Batey, "Introductin," *Vikings in Scotland: An Archaeological Survey*, (Edinburgh University Press, 1998), 2.)

[105] Graham Tulloch, "Lexis," in *The Edinburgh History of the Scots Language*, ed. Charles Jones (Edinburgh University Press, 1997), 394.

These narratives of disruption stem largely from later sources, which captured the imagination of 18th- and 19th-century antiquarians. Following the publication of the Latin translation of *Orkneyinga Saga* by Jónas Jónsson in Copenhagen in 1780, authors of the Scottish Enlightenment began to write their own histories of Scotland during the Viking Age. These histories, dosed with a healthy amount of Scottish nationalism, focused on “the cult of the primitive as well as the image of a virile society [and] constituted rather positive constructions. At the same time, cultural remains of the Norse past, such as dialect and customs were deplored.”[108] Further influence stemmed from the twelfth-century *History of Norway* (*Historia Norwegiae*), which suggested that the Picts of Orkney were completely annihilated by the colonizing Norse.[109] Around the same time, *The Scottish Chronicle* (which survives in a 14th-century manuscript) claims that Kenneth MacAlpin conquered the Picts to become the first king of the Scots; the Picts, it is understood, had become largely weakened by the ongoing Norse assaults.[110]

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[106] Robert B. Gourlay, "Before the Vikings: The Pre-Norse Background in Caithness," in *The Viking Age in Caithness, Orkney, and the North Atlantic: Select Papers from the Proceedings of the Eleventh viking Congress, Thurso and Kirkwall, 22 August - 1 September, 1989*, ed. Colleen E. Batey, Judith Jesch, and Christopher D. Morris (Edinburgh: Edinburgh University Press, 1993), 111.
[107] Fiona Edmonds, "The expansion of the kingdom of Strathclyde," *Early Medieval Europe* 23, no. 1 (2015), https://doi.org/10.1111/emed.12087.
[108] Sebastian Seibert, *Reception and Construction of the Norse Past in Orkney* (Frankfurt: Peter Lang, 2008), 304.

These tales are likely propagandistic in nature, which has led to suggestions by archaeologists that Viking Age Scotland should be considered as purely prehistoric in nature.[111] Scotland provides a plethora of archaeological evidence for Norse presence and settlement in the form of grave-finds and settlement sites. As such, the lack of contemporary primary sources and the abundance of archaeological material aligns Scotland far more with modern understandings of Viking Age Norway and Denmark than Ireland, England, and western continental Europe. Running in counterpoint to the more blood-thirsty narratives, the archaeological evidence "tells us more about the domestic side of the Vikings' way of life than any of the historical sources, and unfolds another dimension to the picture of raiding and terror or the establishment of political structures."[112] As such, there has been much debate regarding the actuality of a Pictish genocide by the Norse. Were the Picts completely annihilated,[113] or did the Norse simply take over "the administration" of Scotland?[114]

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[109] Crawford, *Scandinavian Scotland*, 2, 56.

[110] Julianna Grigg, "Twilight of the Picts," in *The Picts Re-Imagined* (Amsterdam: Amsterdam University Press, 2018), 88.

[111] Christopher D. Morris, "Viking Orkney: A Survey," in *The Prehistory of Orkney*, ed. C. Renfrew (Edinburgh: Edinburgh University Press, 1985), 4.

[112] Crawford, *Scandinavian Scotland*, 2.

[113] Brian Smith, "The Picts and the Martyrs, or Did the Vikings Kill the Native Population of Orkeny and Shetland," in *Northern Studies* 36 (2001).

[114] Jessica Bäcklund, "War or Peace? The relations between the Picts and the Norse in Orkeny," in *Northern Studies* 36 (2001).

The potential of archaeological discoveries in Scotland is unlimited, especially in the face of developing archaeological sciences. A Viking boat burial was found on Papa Westray, Orkney as recently as 2015; the results have yet to be published.[115] mtDNA studies suggest Scandinavian contributions of 35.5%, 11.5%, and 12.5% to the populations of Orkney, the Western Isles, and the Isle of Skye, respectively.[116] Scotland is further leading the charge for stable isotope studies in Atlantic Europe, opening up insights into a range of topics from Norse animal husbandry to marine climatic seasonality.[117]

Despite these advances in the archaeological sciences, the chronologies remain imprecise. As such, without comparative contemporary historical sources, the evidence is inconclusive. Within the context of this project, the lack of written sources means that Scotland is not the best place to triangulate multiple source data-points.

1.VII The Continent

> *“The interest in Vikings, Normans and Danes ebbed and flowed in time with the alternation of cultural focal point within poetry, painting and sculpture… in which,*

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[115] "Work begins to uncover secrets of Viking burial site," news release, 22 July 2021, https://www.historicenvironment.scot/about-us/news/work-begins-to-uncover-secrets-of-viking-burial-site/.

[116] Agnar Helgason et al., "mtDNA and the Islands of the North Atlantic: Estimating the Proportions of Norse and Gaelic Ancestry," *Am J Hum Genet* 68, no. 3 (2001), https://doi.org/10.1086/318785.; A different (more recent) study puts Norwegian ancestry at 23-28% in Shetland: Edmund Gilbert et al., "The genetic landscape of Scotland and the Isles," *Proceedings of the National Academy of Sciences* 116, no. 38 (2019), https://doi.org/doi:10.1073/pnas.1904761116, https://www.pnas.org/doi/abs/10.1073/pnas.1904761116.

[117] Ingrid Mainland et al., "Toiling with teeth: An integrated dental analysis of sheep and cattle dentition in Iron Age and Viking–Late Norse Orkney," *Journal of archaeological science, reports* 6 (2016), https://doi.org/10.1016/j.jasrep.2015.12.002.; Donna Surge and James H. Barrett, "Marine climatic seasonality during medieval times (10th to 12th centuries) based on isotopic records in Viking Age shells from Orkney, Scotland," *Palaeogeography, palaeoclimatology, palaeoecology* 350-352 (2012), https://doi.org/10.1016/j.palaeo.2012.07.003.

> *respectively, the Romantic mood of the various periods and regions was emphasized – in the same way as the heroic and nationalistic attitudes.”*[118]

Whereas Ireland and England (and by extension Britain) can be separated both nationally and geographically, the study of the Norse in Frankia covers a wide swathe of modern nations. Both Ireland and England were divided into a series of kingdoms during the early medieval period, while large territories within France, Belgium, the Netherlands, and Germany were under the control of the Carolingian Empire. For this reason, it is impossible to study the vikings in Frankia without a thorough understanding of Charlemagne and his heirs. Henri Pirenne’s seminal thesis *Mohammed and Charlemagne*, which argued for commercial stagnation in Western Europe during the early Middle Ages as a result of Islamic conquest throughout the Mediterranean, remained influential until the 1980s.[119] With *Dark Age Economics*, Richard Hodges presented a flawed, but ultimately effective reevaluation of the archaeological evidence, suggesting that the years c. 600 to 1000 were a time of economic growth.[120] Economic historians Michael McCormick and Adriaan Verhulst have since built on Hodges’s work, arguing that the Carolingian period was a period of economic and demographic growth and inter-regional trade.[121] Additionally, Janet Nelson, Rosamond McKitterick, and Simon MacLean have been imperative in breaking down the complex political machinations of the Carolingian court, inclusive of the dynasty's actions and reactions to the Danish kingdom and the marauding Norse.[122]

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[118] Iben Skibsted Klæsøe, "Research history: Some comments," in *Viking Trade and Settlement in Cotinental Western Europe*, ed. Iben Skibsted Klæsøe (Copenhagen: Museum Tusculanum Press & University of Copenhagen, 2010), 8.

[119] Henri Pirenne, *Mahomet et Charlemagne* (Paris: Presses universitaires de France, 1922 (1970)).

[120] Richard Hodges, *Dark age economics : the origins of towns and trade A.D. 600-1000* (New York: St. Martin's Press, 1982).

[121] Adriaan Verhulst, *The Carolingian economy*, Cambridge medieval textbooks, (Cambridge: Cambridge University Press, 2002).; Michael McCormick, *Origins of the European Economy: Communications and Commerce A.D. 300-900* (Cambridge: Cambridge University Press, 2001).

The modern study of the Norse in Frankia began with Walther Vogel's *Die Normannen und das fränkische Reich,* published in 1906.[123] Vogel was informed, in part, by Johannes Steenstrup's four-volume study *Normannerne*, published between 1876 and 1882, which sought to demonstrate that the "Norsemen [had not abandoned] their Norse customs in the new environment."[124] Focusing on the early Viking Age, c. 799 to 911, Vogel's work took an uncritical approach to the primary written source material.

Alongside these early text-driven studies, several major archaeological discoveries were made in France and Germany. In 1865, two oval brooches were recovered from an inhumation grave in Pîtres, though it was not until Birgitta Elmqvist published "Les fibules de Pîtres," in 1969 that the artefacts were positively identified as being of the Viking Age. The Île de Groix ship burial, excavated by P. du Chatellier and L. Le Pontois in 1906, has not received the proper attention it deserves;[125] it was not until 1989 that the Continent's only ship burial was discussed extensively in English.[126] It should be noted, however, that Viking Age archaeology on the Continent has never proven to be as abundant or revealing in comparison to the finds recovered in either England or Ireland. For example, metal-detecting laws are strict in France, and there is no find-recording system similar to England's Portable Antiquity Scheme. Moreover, several scholars have published surveys on Viking Age swords recovered in areas such as the Seine Region, Brittany and the Loire Valley, Northern Germany, and the Netherlands.[127] The swords have proven to be problematic in themselves, because many Norse warrior utilized and were buried with Germanic and/or Carolingian-style swords.[128] As such, where a Norse or Continental style sword may be taken as an indication of Viking activity on the Irish and British Isles, no such conclusion can be drawn on the Continent.

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[122] Janet L. Nelson, *The Frankish world, 750-900* (London: Hambledon, 1996).; Rosamond McKitterick, *The Frankish Kingdoms under the Carolingians, 751-987* (London and New York: Longman, 1983).; Simon Maclean, *Kingship and politics in the late ninth century : Charles the Fat and the end of the Carolingian Empire*, 4th ser., 57 (Cambridge: Cambridge University Press, 2003).

[123] Walther Vogel, *Die Normannen und das Frænkische Reich bis zur Gryndung der Normandie (799-911)*, vol. 14, Heidelberger Abhandlungen zur mittleren und neueren Geschichte, (Heidelberg: Carl Winter, 1906).;

[124] Skibsted Klæsøe, "Research history: Some comments," 9.; Johannes Steenstrup, *Normannerne : B. 1 : Indledning i Normannertiden*, vol. B. 1 (Kjøbenhavn: Rudolph Klein, 1876), V.

[125] P. Du Chatelier and L. Le Pontois, "La sépulture scandinave à barque de l'île de Groix," *Bulletin de la Société archéologique du Finistère* 35 (1908).

[126] Neil Price, *The Vikings in Brittany* (London: Viking Society for Northern Research, 1989).

It took until the 1960s for there to be a solid integration of the primary written sources and the archaeological material. Lucien Musset, who published *Les Invasions: le second assault contre l'Europe chrétienne Viie-XI siècles* in 1965, begins with a full critical review of the primary and secondary sources pertaining to the seventh- to the eleventh-centuries.[129] His linguistic, historical and archaeological understanding of the vikings in Frankia, particularly Normandy, is thorough. However, his work suffers from a distinct Continental focus, in which he concerns himself with the *importation* of goods, ideas, and vocabulary, as opposed to the framework in which these materials and ideas traveled within an early medieval network.[130] The surveys of Albert d'Haenes and Peter Sawyer stand out for their conservative views on the destruction reeked by the Norse on the West. For Sawyer, the Norse, "a scourge to the Christian, were in the eyes of many laymen only intruders of a recognizable type with whom it might be profitable or convenient to come to terms," while d'Haenens argues that the raids might have had ultimately produced positive results and eventually led to integration between the Norse and the Franks.[131] The response to this revisionist reading came several years later from authors such as J. M. Wallace-Hadrill and C. Patrick Wormald, who argued for a return to close readings of the primary sources, as contemporary authors wrote with familiarity and credibility.[132] More recently, there has been a shift by scholars such as Simon Coupland and Pierre Bauduin, whose works move away from individual instances of violent viking-Norse activity towards comprehensive studies of the geopolitical influences brought about by Norse presence within Frankia.[133] Christian Cooijman's 2021 monograph *Monarchs and Hydrarchs: The Conceptual Development of Viking Activity across the Frankish*

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[127] H. Arbmann and N.-O. Nilsson, "Armes Scandinaves de L'Époche Vikings en France," in *Meddelanden från Lunds Universitets Historiska Museum 1966/68* (Lund: 1969).; G. Durville, "Les èpèes Normandes de l'Ile de Bièce," in *Bulletin de la société Archéologique et Historique de Nantes et de la Loire-Inférieure. Fondée le 9 aout 1845* (Nantes: 1929).;H. Jankuhn, "Schwerter des frühen Mittelalters aus Hamburg," *Hammaburg* 2 (1950/51).; M. Müller-Wille, "M. Ein neues ULFBERHT-Schwert aus Hamburg," *Offa* 27 (1970); Jaap Ypey, "Én aantal vroeg-middeleeuwse zwarden uit Nederlandse musea," *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 10-11 (1960-61); Jaap Ypey, "Vroeg-middeleeuwse wapens uit Nederlandse versamelingen," *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 12-13 (1962-63).

[128] M. Müller-Wille, "M. Das Schiffsgrab von der Île de Groix (Bretagne) - Ein Exkurs zum 'Bootkammergrab von Haithabu'," *Berichte über die Ausgrabungen in Haithabu* 12 (1978).

[129] Lucien Musset, *Les invasions : 2 : Le Second assaut contre L'Europe chretienne : (VIIe-XIe siecles)*, vol. 2 (Paris: Presses universitaires de France, 1965).

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[130] Lucien Musset, *Nordica et Normannica : recueil d'études sur la Scandinavie ancienne et médiévale, les expéditions des Vikings et la fondation de la Normandie*, vol. vol. 1, Studia nordica (Paris), (Paris: Société des études nordiques, 1997).

[131] Sawyer, *The age of the vikings*, 205.; Albert d Haenens, *Les invasions normandes, une catastrophe?*, vol. 16, Questions d'histoire, (Paris, 1970).

[132] J. M. Wallace-Hadrill, *The Vikings in Francia*, vol. 1974, The Stenton lecture, (Reading: University of Reading, 1975).; C. Patrick Wormald, "Viking Studies: Whence and Whither," in *The Vikings*, ed. R.T. Farrell (London: Philimore, 1982).

[133] Pierre Bauduin and livre Centre national du, *Le monde franc et les Vikings : VIIIe-Xe siècle*, Bibliothèque de l'évolution de l'humanité, (Paris: Albin Michel, 2009).; Simon Coupland, "From poachers to gamekeepers: Scandinavian warlords and Carolingian kings," *Early medieval Europe* 7, no. 1 (1998), https://doi.org/10.1111/1468-0254.00019; Simon Coupland, *Carolingian coinage and the Vikings : studies on power and trade in the 9th century*, vol. CS847, Variorum collected studies series, (Aldershot: Ashgate, 2007); Simon Coupland, "The Carolingian Army and the Struggle against the Vikings," *Viator* 35 (2004), https://doi.org/10.1484/j.Viator.2.300192.

Realm (c. 750-940) deserves special attention in its attempt to understand the Norse power structures at play whilst they raided, traded, and settled throughout Frankia.[134]

Within the various studies of the vikings in Frankia, there exist specific surveys of the Norse in Frisia, Normandy, and Brittany. Normandy is, of course, the most studied region.[135] By 911, the Norse had acquired large tracts of land, and Rollo's descendants would go on to become one of Europe's most powerful dynasties. Jacques Le Maho has argued that the Norse had established permanent settlements long before the semi-legendary 'treaty of Saint-Clair-sur-Epte.'[136] However, it is in Brittany that one finds the Île de Groix ship burial; Neil Price has argued that the province hosted a Norse settlement similar to the one carved out in Normandy.[137] Nelleke L. IJssennagger has brought much needed attention to Viking Age Frisia in the last decade, suggesting that the region acted as both a gateway and 'cultural continuum' between modern constructions of a north and south European divide.[138]

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[134] Christian Cooijmans, *Monarchs and hydrarchs : the conceptual development of Viking activity across the Frankish realm (c. 750-940)*, Conceptual development of Viking activity across the Frankish realm (c. 750-940), (London,New York: Routledge, 2020).

[135] David Bates, *Normandy before 1066* (London: Longman, 1982).; Musset, *Nordica et Normannica : recueil d'études sur la Scandinavie ancienne et médiévale, les expéditions des Vikings et la fondation de la Normandie*, vol. 1.; Jean Renaud, *Les Vikings et la Normandie*, Ouest-France université, (Rennes: Editions Ouest-France, 1989).

[136] Jacques Le Maho, "Les premières installations normandes dans la basse vallée de la Seine (fin du IXe siècle)," in *La progression des Vikings, des raids à la colonisation*, ed. Anne-Marie Flambard Héricher (Rouen: Cahiers du GRHIS, 2003).

[137] Price, *The Vikings in Brittany*.; Neil Price, "Viking Brittany: revisiting the colony that failed," in *Early Medieval Art and Archaeology in the Northern World*, ed. A. Reynolds and L. Webster (Leiden: Brill, 2008).; Neil Price, "The Viking conquest of Brittany," in *The Viking World*, ed. Stefan Brink and Neil Price (London and New York: Routledge, 2008).

[138] Sarah Croix and Nelleke Ijssennagger - Van Der Pluijm, "Cultures without Borders?," *Scandinavian Journal of History* 46, no. 3 (2019), https://doi.org/10.1080/03468755.2019.1687332; Nelleke L. Ijssennagger, "Between Frankish and Viking: Frisia and Frisians in the Viking Age," *Viking and Medieval Scandinavia* 9 (2013), http://www.jstor.org/stable/45020171.

Within English-speaking academic circles, scholars have not seriously considered Norse activity in Frankia as parallel events to the Great Army or Norse settlement in Ireland. It should be noted that Peter Sawyer highlights the extent to which the Norse raided and attempted to settle parts of Frankia into the 860s, though he contends that "in the years after 866 many Vikings, faced with improved defences and finding little left to plunder in the undefended areas, sought their fortunes elsewhere, especially in England."[139] This project contends that this either/or approach is an historiographical error, which it seeks to remedy.

1.VIII Previous attempts to link regional studies

This is not to say that trans-regional studies of the Viking Age have not been attempted previously. Credit must be given first and foremost to Peter Sawyer, as well as his wife Birgit Sawyer. Peter Sawyer made his major debut in the field of Viking Studies with *The Age of the Vikings* in 1962, wherein he linked the armies of the Frankish viking raids with the English Great Army, as mentioned above.[140] His main argument, however, was focused around the size of the armies, which stirred greater interest and debate than his theories regarding transregional raid and settlement.[141] It should be noted, and indeed was previously mentioned in the 'Ireland' section above, that Peter Sawyer was primarily an English scholar, who wrote extensively about England from the Romans to the Normans. It is here suggested that despite his transregional approach to the vikings, his work is often colored by an interest as to how the viking invasions primarily affected England. Still, this thesis itself owes much towards Peter Sawyer's attempts to move Viking Studies forward.

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[139] P. H. Sawyer, *Kings and Vikings: Scandinavia and Europe AD 700-1000,* (London and New York: Routledge, 1982), 90.

[140] P. H. Sawyer, *The Age of the Vikings* (London: Arnold, 1962).

[141] Niels Lund, "Peter Sawyer (1928-2018," *Northern History*, 55:2 (2018) 135-38. DOI: 10.1080/0078172X.2019.1585167

More recently, Judith Jesch has popularized the idea of a 'viking diaspora,' wherein she utilizes an interdisciplinary and trans-regional approach, though she emphasizes that an understanding of "the Scandinavian diaspora can be achieved only when looking to the consequences of Viking migrations and centuries that followed the Viking Age."[142] Similarly, Neil Price is currently leading the *Viking Phenomenon* project out of the University of Uppsala, focusing on key issues "relating to raiding, military ideologies, and the nature of long-distance, international contacts and trade."[143] The project is keen to explore these issues using an interdisciplinary and trans-regional approach, though the compiled outputs do not create a continuous narrative. Price has previously worked with Stefan Brink to compile *The Viking World*, which has proven to be an outstanding resource for students and researchers alike.[144] However, the compendium is divided into themes, and then focusing on material or sites that the editors deem to be of particular interest. This again fails to create a continuous narrative, wherein the combined evidence is layered and viewed continuously and contemporaneously.

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[142] Andris Šnē, "Book Review: Judith Jesch, *The Viking Diaspora*," *Journal of Baltic Studies,* 48 (2017), 273-75.; Judith Jesch, *The Viking Diaspora* (London: Routledge, 2015).

[143] "The Viking Phenomenon Project – An Introduction." 2023. Introduction to The Viking Phenomenon - Uppsala University, Sweden. Accessed December 6. https://www3.uu.se/en/research/projects/viking-phenomenon/introduction.

[144]

This project does not claim that trans-regional approaches have never before been taken. Instead, this takes such studies one step further, utilizing GIS as a visual, macro-historical tool that inables one to view all Norse activity across Atlantic Europe at the same time.

1.IX A note on inter-regional archaeology

Understanding the Viking Age as a time of intense economic transformation and expansion has helped push archaeological studies outside the realms of national foci. Within the last two decades, archaeologists have published major excavations and reassessments of archaeological excavations on *emporia* and early towns. Hedeby, as the largest and most important trading site, has been given significant focus, with an overview of the various aspects of the site appearing in 2014.[145] Recent excavations at Ribe and Kaupang have completely altered the ways in which scholars understand the urban landscape of Scandinavia during the Viking Age, especially in terms of single private households and short- and long-distance trade.[146] In the Baltic, there have also been publications stemming from excavations at other *emporia* materially connected to the Norse: Wolin, Truso, and

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[145] Kurt Schietzel et al., *Spurensuche Haithabu : archäologische Spurensuche in der frühmittelalterlichen Ansiedlung Haithabu : Dokumentation und Chronik 1963-2013* (Neumünster: Wachholtz Verlag, 2014).

[146] Søren Michael Sindbæk and Selskab Jysk Arkæologisk, *Northern Emporium : Vol. 1 The making of Viking-age Ribe*, vol. 122, Jysk Arkæologisk Selskabs Skrifter, (Aarhus: Aarhus University Press, 2022).; Dagfinn Skre and undersøkelsen Kaupang, *Things from the town : artefacts and inhabitants in Viking-age Kaupang*, vol. vol. 3, Kaupang Excavation Project publication series, (Århus,Oslo: Aarhus University Press Kaupang Excavation Project, 2011); Skre and Kaupang, *Kaupang in Skiringssal*, 22; Skre and Kaupang, *Means of exchange : dealing with silver in the Viking Age*, 23.; Unn Pedersen, *Into the Melting Pot: Non-ferrous Metalworkers in Viking-period Kaupang*, vol. Kaupang Excavation Project 4, Norske Oldfunn, (Aarhus: Aarhus University Press, 2016).

Gross Strömkendorf.[147] As mentioned above, Dublin and York have both benefitted from published reports on earlier excavations.[148]

By examining trade within the context of urban *emporia*, network theory has gained traction within the field of Viking Studies, wherein "a trading-place is not primarily a political or economic structure, but a traffic junction – a point where certain networks or traffic convene."[149] The study of silver and an understanding that trade served as an appealing 'pull' factor for Norse operations has gained steam since the late 2000s. The archaeological evidence for silver as a key commodity and means of exchange is undeniable, and new archaeological and scientific approaches can reveal the movement and lifecycle of other resources, including soapstone, iron, tar, and bone, among many other material goods.[150] These analyses of the Viking Age economy have moved scholarship towards a holistic recognition that trade is “not merely as an instrument of political elites but as a dynamic issuing from and transforming the pursuits of wider communities.”[151]

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[147] Sebastian Brather and Marek Franciszek Jagodziński, Der wikingerzeitliche Seehandelsplatz von Janów (Truso) : geophysikalische, archäopedologische und archäologische Untersuchungen 2004-2008, vol. 24, Zeitschrift für Archäologie des Mittelalters, (Bonn: Habelt, 2012); Marcus Gerds, Michael Wolf, and Kiel Universität, "Das Gräberfeld des frühmittelalterlichen Seehandelsplatzes von Groß Strömkendorf, Lkr. Nordwestmecklenburg" (Band 6 Reichert Verlag, 2015); Zygmunt Chełkowski, Jarosław Filipiak, and Bozena Chełkowska, "Studies on ichthyofauna from an archaeological excavation on Wolin-Town (Site 1, pit 6)," Acta ichthyologica et piscatoria 31, no. 1 (2001), https://doi.org/10.3750/AIP2001.31.1.04; Wladyslaw Duczko, "Viking-Age Wolin (Wollin) in the Norse Context of the Southern Coast of the Baltic Sea," Scripta islandica 65 (2014); Wojciech Filipowiak, "How Vikings crossed the North Atlantic? The reinterpretation of 'sun compasses' - Narsarsuaq, Wolin, Truso," The International journal of nautical archaeology 49, no. 2 (2020), https://doi.org/10.1111/1095-9270.12426.

[148] Wallace, *Viking Dublin: the Wood Quay excavations*.; Richard Hall, *The Viking Dig: the excavations at York*, (Bodley Head: London, 1984).

[149] Søren M. Sindbæk, "Networks and nodal points: the emergence of towns in early Viking Age Scandinavia," *Antiquity* 81, no. 311 (2015): 120, https://doi.org/10.1017/s0003598x00094886.

[150] Irene Baug et al., "The Beginning of the Viking Age in the West," *Journal of Maritime Archaeology* 14, no. 1 (2018), https://doi.org/10.1007/s11457-018-9221-3.; Steven P. Ashby, "Combs, Contact and Chronology: Reconsidering Hair Combs in Early-Historic and Viking-Age Atlantic Scotland," *Medieval archaeology* 53, no. 1 (2009), https://doi.org/10.1179/007660909X12457506806081.; Andreas Hennius, "Viking Age tar production and outland exploitation," *Antiquity* 92, no. 365 (2018), https://doi.org/10.15184/aqy.2018.22.

1.IX Conclusion

The above chapter has affirmed that studies of the Viking Age tend to remain divided between nations and across disciplines. There have been notable attempts to bridge these boundaries, and yet, each attempt – successful or otherwise – reclarifies the need for cross-national and interdisciplinary studies of the Viking Age.

There are certainly advantages to regional studies with specific historical or archaeological focuses. Firstly, Denmark, Norway, and Scotland do not retain any contemporary textual sources, and thus an understanding of the Viking Age in Atlantic Scandinavian and northern Britain has remained within the purvue of archaeology. On the opposite end, the Atlantic coast of Germany, the Netherlands, Belgium, and France has provided limited archaeological evidence of Norse activity, though the contemporary Frankish sources are rife with references to their exploits. Secondly, the Norse are rarely the main focus of the sources, and they are written by outside perspectives. The Norse were active in regions where political systems were actively developing, lands were consolidating, and rulers were fighting to maintain dominance among their native peers. The sources are clear that the kingdom(s) of Frankia, Ireland, and England had enough problems to deal with internally without the added pressure of Norse raiding and colonization.

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[151] Julie Lund and Søren M. Sindbæk, "Crossing the Maelstrom: New Departures in Viking Archaeology," *Journal of Archaeological Research* 30, no. 2 (2021): 190, https://doi.org/10.1007/s10814-021-09163-3.

Thirdly, these close readings and analyses provide detailed insights into the historical and archaeological evidence of each region. It is impossible to build a macro-study without using previously compiled micro-studies as foundations and building blocks.

Yet, the above chapter has shown that there are distinct disadvantages to these micro-studies. Firstly, in counterpoint to the idea that it behoves regions such as Scotland, Denmark, and Norway to focus solely on archaeological sources, and the Atlantic coast of the Continent to stick to close readings of the texts: by keeping these studies separate, a clear picture of the Norse as a whole cannot come into focus. This leads to the second point, wherein the Norse become a ‘Viking’ monolith. Without addressing the role of Norse mobility across the various regions and the disparate evidence they left behind, stereotypes and generalities remain entangled within the Norse myth of raiding and trading. This ultimately does a disservice to the people who understood the landscape (and seascape) of Atlantic Europe differently. Whereas the narrative of modern geopolitics has affirmed that coastlines must be understood as tangible borders, the Norse utilized the sea as a limitless space for travel and expeditions.

Such is the case for a combined study of the Viking Age. As discussed above, different types of evidence are more numerous in some areas that others, which has lent more weight to one strand of research or one region in favor of others. By combining the evidence, this project seeks to create a more balanced and less biased overview. It should be noted that close analysis will not be discarded completely. An awareness of details is necessary, but only by applying these details to a whole can more profound insights of the Norse be developed.

Chapter 2: Source Evidence

2.I Introduction

This chapter aims to establish indicators for the geographic and chronological limits of the historical source material. These indicators will serve to understand the locational bias of those who recorded the sources, as well as the extent to which coverage remains in the surviving sources. As such, the chapter below explores these sources in order to understand how and how often the Norse were covered by the surviving records. I begin with an explanation of the creation of the Master Database of Norse activity in the textual sources, wherein the methodology of turning contemporary medieval sources into a digital databank is considered. This includes a discussion of the contemporary terminology used to identify the Norse. Next, I conduct a series of sample surveys inclusive of all activity the Irish Annals, the Frankish Annals, the Anglo-Saxon Chronicle, and the single Spanish chronicle. These sample surveys serve to establish the limits and limitations of the contemporary sources, whereby indicators for breadth and depth of use become apparent.

The contemporary written evidence concerning the Viking Age comes almost exclusively from Christian medieval annals and chronicles. The annually arranged records function as both a historical narrative, as well as a representation for a way of life and thinking that do not necessarily accord with modern audiences. Daniel McCarthy suggests for the case of the Irish Annals that they serve as “a window onto the collective memory of the past preserved by one of its most privileged groups, its literate class."[152] That is to say, not only is the world they recorded foreign to us, it may also appear unrecognizable to many of those who lived during that period. These scribes resided at ecclesiastical seats and the courts of kings, and they were very much "concerned with the legitimization of power through knowledge."[153] Moreover, even before the geographical analysis of this chapter, it is understood that scribes operated under geographical bias. It is therefore difficult to trust the accuracy of early medieval historiographical works because of their apparent bias and sometimes skewed depictions of the past, and it is thus necessary to take into account the partiality that scribes wrote with.[154]

There are other factors that must be taken into account: for instance, is it possible that the raids imposed on Ireland, Britain, and the Frankish kingdoms would have affected production of the texts? For example, it is known that the scriptorium of Partmahamoack was destroyed, which would have had an adverse affect on recording and dissemination of the raids.[155] Not only would the Norse have halted production in some cases, but David Dumville has suggested that scribes changed their criteria for the inclusion of events in the annals, they altered their vocabulary, and even switched the language that they recorded in, all because of the nature of Norse raiding.[156] Imperfect though the sources may be, these resources are instrumental in understanding the Norse, and the context in which they operated during the early Viking Age.

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[152] D. P. McCarthy, The Irish Annals : their genesis, evolution and history (Dublin: Four Courts, 2008).

[153] Wojtek Jezierski, "Taking sides: some theoretical remarks on the (ab)use of historiography," in *The Medieval Chronicle V*, ed. E Kooper (Leiden: Brill, 2008), 108-09.

[154] Gabrielle M. Spiegel, *The past as text : the theory and practice of medieval historiography* (Baltimore, Md ; London: Johns Hopkins University Press, 1997), 99-100.

[155] Martin Carver, *Pormahomack: Monastery of the Pickts*, (Edinburgh: Edinburgh University Press, 2008).

[156] Janel Marie Fontaine, "Slave Trading in the British Isles and the Czech Lands, 7th-11th Centuries" (Doctor of Philosophy King's College London, 2017), 21.; David Dumville, "Vikings in the British Isles: A Question of Sources," in *The Scandinavians from the Vendel Period to the Tenth Century: An Ethnographic Perspective*, ed. Judith Jesch (Woodbridge: Boydell Press, 2002), 353.

2.II Norse Activity Database

In this section, I review the methodological perspective of using digital analysis on historical records. Following this, the process of surveying Norse activity will be discussed, inclusive of language and terminology, and specifically how chronological narratives from the early medieval period were inputted into a digital database and georeferenced for a geographical analysis. The resulting database will be available as a spreadsheet in the Appendix.

2.II.1 Turning text into data

The use of historical GIS was examined at length in the introductory chapter, but it is important to take a step back and break down how these sources can be rendered from modern critical editions into a digital, multi-layered map. The process begins by breaking down the source material and entering it into a database. A database, by definition, allows for the entry, storage, input, output, and organization of data. A spatial database simply includes location, using points, lines, and polygons. For the purpose of this project, I use Excel as the spreadsheet storage system can be formatted and queried and uploaded in the GIS system.[157]

How then, can these texts be turned into data in order to be inputted into a database? The process can be complicated, because humanistic data is often qualitative, and therefore more nuanced than the quantitative data favored by the physical or mathematical sciences. Eileen Gardiner & Ronald G. Musto expound on this topic:

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[157] Eileen Gardiner and Ronald G. Musto, *The Digital Humanities: A Primer for Students and Scholars* (Cambridge: Cambridge University Press, 2015), 75.

> "While physical scientists draw their data from the natural world and social scientists from human groupings, humanists draw their information from the world created by humans: most concretely from historically created objects, but also from the record of human discourse either about that record or about the record of events – what we commonly call facts – or about the texts created about them, whether these texts are written, oral, visual, aural or spatial."[158]

The quote implies that there are many forms of humanist data, which leads me to suggest that there is no one right way to turn texts into data, and indeed, there are many different ways it can be done.

2.II.2 Survey of Norse Activity

This section explores the identification of Norse terminology and activity within the source material, and furthermore, how this project qualified Norse activity within a database system.

2.II.2.i Terminology

The contemporary scribes used a variety of inexact terminology to describe the Norse. Even within regions or languages, these descriptors could prove inconsistent. As such, before the compilation of the textual database could begin, it was necessary to identify the terms used to describe the Norse in the source languages. By knowing and understanding the terminology, this allows the English translations to be crosschecked against critical editions and/or the original manuscripts, thereby ensuring that translators and editors had not taken unwarranted assumptions or creative license.

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[158] Gardiner and Musto, *The Digital Humanities: A Primer for Students and Scholars*, 31.

Nordmannia, the land of the Northern Men, is first referenced by the Franks in 777, when the Saxon leader Widukind fled north with his companions.[159] *Nordmannia* appears to allude to a large territory of land that lay vaguely north of Saxony and remained largely unexplored by the Franks. In 782, Charlemagne held an assembly at which *Nordmanni missi Sigifridi regis* ("Norse missives of King Sigfrid") attended.[160] Later, in 808, the Frankish scribes reference *Godofridus rex Danorum,* or Godfrid, King of the Danes.[161] Scholars have taken this to suggest that the Danes were a political group, and perhaps even a burgeoning kingdom. There is a clear understanding of the southern border, taken as where the northern Saxon territories ended, though the northern extent of the Danish territories are unknown.

The Early English used both *Dene* and *Norðmenn*, though it can be argued that these are not regional Scandinavian identifiers, with both implying Scandinavian origin as a whole.[162] The Early English also referred to the Norse as *hæðen,* or 'heathen,' and this served as the most popular term for the invading Norse during the 850s.[163] From 860-892, the *ASC* favored *here,* or ‘invading army,’[164] which was indicative of the events occurring within the English kingdoms at this time.

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[159] Bernhard Walter Scholz and Barbara Rogers, *Carolingian Chronicles: Royal Frankish Annals and Nithard's Histories*, Ann Arbor Paperbacks, (University of Michigan Press, 2006), 55.; *ARF* 777.
[160] Scholz and Rogers, *Carolingian Chronicles*, 59.; *ARF* 782.
[161] Scholz and Rogers, *Carolingian Chronicles*, 88-9.; *ARF* 808
[162] Clare Downham, "'Hiberno-Norwegians' and 'Anglo-Danes': anachronistic ethnicities and Viking-Age England," *Medieval Scandinavia* 19 (2009): 139.

Geinti, meaning ‘pagans,’ was a popular Gaelic term to describe the Norse in the Irish Annals, but Lesley Abrams has demonstrated that the Irish scribes were not consistent in their labelling, and that they applied *geinti* when discussing groups other that the Norse.[165] The Irish sources also employ three names to distinguish between three groups that were active on the island during the mid-ninth century: *Finngaill, ‘*Old’ or ‘Fair Foreigners,’ *Dubgaill*, ‘New’ or ‘Dark Foreigners,’ and *Gallgoídil*, or ‘Foreigner-Gaels.’[166] Much energy has gone into deciphering exactly what the Irish meant by the *Finngail* versus *Dubgaill*, specifically whether it was the Irish or the Norse who differentiated these groups as Other from one another. At the current time, the differentiation of these groups is not as important as identifying these groups as other than the Irish themselves.

The sources also use even more ethnically ambiguous terminology to discuss the Norse, which muddies the waters regarding whether the Norse were responsible for various perpetrations. For example, within the Frankish sources, terms such as *piratus*, or pirate, are used to indicate Norse marauders on the Frisian and Gallic coasts. However, *piratus* are identified in the Mediterranean as well, and were almost certainly Islamic groups. This confusion has led to the suggestion that

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[163] Downham, "‘Hiberno-Norwegians’ and ‘Anglo-Danes’," 142.

[164] *Ibid*.; T. A. Shippey, "A Missing Army: Some Doubts about the Alfredian Chronicle," *Anglo-Saxon England* I (2007).

[165] Lesley Abrams, "The Conversion of the Scandinavians of Dublin," *Anglo-Norman Studies* 20 (1997): 9-13, 25.

[166] Alfred P. Smyth, "The Black Foreigners of York and the White Foreigners of Dublin," *Saga-book of the Viking Society* 19 (1974-77).; David Dumville, "Old Dubliners and New Dubliners in Ireland and Britain: a Viking-Age Story," *Medieval Dublin* 6 (2004): 83-4, 91-2.; Downham, "‘Hiberno-Norwegians’ and ‘Anglo-Danes’," 151.

Charlemagne’s visit to the Gallic coast in 800 was a direct assault against Norse pirates. The problem is, of course, that the source is not explicit about the pirates being from the Scandinavian north. The fleet was built, and guards were set along the coast because the sea “was then infested with pirates.”[167] Piracy was not exclusive to the Norse, and these pirates may well have been Frisians or Anglo-Saxons, or even Frankish in origin. This study will thus only record instances of pirating raids when the Norse are specifically named within the Frankish sources.

It should be noted that this discussion presupposes that the use of the above terms by the annalists is both systematic and correct. However, the point of this exercise is to first and foremost eliminate non-Norse groups from the study. Chroniclers referred to the Norse using many names and sometimes did not refer to them explicitly at all. As such, wherever possible, the English translations of the contemporary sources have been crosschecked against critical editions and/or transcriptions. In this way, the project hopes to eliminate biases held by both the author and past scholars that all pirating within the North Atlantic can be attributed to the Norse.

2.II.2.ii Master Databases

This thesis produced many different attempts to collect and collate a complete survey of Norse activity as recorded in the contemporary annals, c. 777-920; the final Master Database will be discussed below. Several approaches were undertaken to mine the contemporary source data. First, all English translations of the contemporary sources were scanned, uploaded, and converted into readable

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[167] Scholz and Rogers, *Carolingian Chronicles*, 78-81.; *ARF* 800

OCR files, thereby ensuring that each source was available digitally. A complete reading of the sources from 777-920 was undertaken, from which all examples of Norse activity were noted. Following this complete reading, the source data was checked, using both the indexes of the sources and also a keyword search using the electronic/online editions, for terms including, “Vikings,” “Danes,” “Northmen,” etc. Once entries regarding Norse activity were identified, relevant information was copied and/or transcribed and entered into the database in chronological order by year. Important information supplied by the editors of these texts was noted for personal referencing; this includes obscure geographic and place name references and notes on the manuscript/translation.

The Master Database was created in a table format using Microsoft Excel. The entries are organized primarily on chronological events, in conjunction with the chronological nature of the sources. As such, the data is collected under the following columns: ‘Year [Text]’ and the corrected year as identified by previous scholars, ‘Year [Corrected].’ ‘Source’ follows, pertaining to the annals or chronicle cited, and then the entirety of an entry pertaining to Norse activity is transcribed under ‘Passage.’ Both ‘Location [Text]’ and ‘Location [Modern]’ seek to clarify how chroniclers referred to their contemporary geographical sites against modern place names. ‘Repeat,’ distilled within a true/false dataset, indicates whether more than one annal or chronicle repeats the event; in this case, the first instance of an event will be marked as *false,* while the following multiple records will be marked as *true.*[168] ‘Latitude’ and ‘Longitude’ hold georeferenced information that apply to the mapping process, followed by a true/false ‘Buffer,’ which seeks to identify whether the georeferenced location can be geolocated to within 5km of an exact point. In this case, *true* denotes that the georeferenced location is not exact, and therefore should be viewed with a buffered zone of uncertainty. The final column, ‘Activity,’ divides the quality of Norse activity into four specific groupings: ‘1’ holds that the Norse are involved in diplomatic undertakings, inclusive of ambassadorial delegations, peace talks, and land grants; ‘2’ relates to conflict, inclusive of raids, battles, and individual murders; ‘3’ indicates settlement, which holds for short- and long-term encampments, as sometimes it is difficult to ascertain how long groups settled in a single place; and ‘4’ suggests inter-Norse conflict to reflect civil war at home or groups engaged in territorial disputes abroad. Previous versions of the Master Database collected more or less information, but this final databank has produced the simplest and most effective solutions for the Master map, which will be discussed in Chapter 6 below.

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[168] Wherein Boolean datatypes pertain to two possible values: 1 = TRUE, 0 = FALSE

In total, 1308 datapoints were collected from across the Irish Annals, the *ASC*, and the Frankish Annals. Some of these datapoints include repeated events across multiple sources, as well as repeated entries in the same record in order to identify multiple locations of activity. However, the extent of the collection process proved to be a long and difficult progress, impeded by lack of access to resources – sometimes physically, and sometimes due to lack of ready translations. This will be discussed in greater detail below.

2.III Survey of the Contemporary Chronological Sources

This section discusses and surveys the annals and chronicles from the early Irish, English, Frankish, and Spanish kingdoms. The sources will be examined, from their manuscript form up through circulating English editions, and periods from select sources will be surveyed to test their geographical limitations. By mapping these surveys using precise geolocation, it is the hope of this study that patterns will emerge that can ultimately indicate the extent to which Norse activity was represented by the annals and chronicles of Atlantic Europe.

2.III.1 The Irish Annals

The Irish Annals are one of the oldest sources of vernacular written literature in Europe and date back to Ireland's early adoption of Christianity and literacy in the fifth-century AD.[169] Recorded by clerics at ecclesiastical centers until the 13th century, the literary contribution is considered both significant and generally reliable from the middle of the seventh century up through the 17th century. This does not suggest that the early Irish Annals can be read purely as historical fact. While presented as chronological, factual recordings, the events therein were recorded by biased onlookers. The scribes recorded only what they believed to be necessary to contemporary readers and disregarded information that would have given context and understanding to present day audiences. However, they provide unparalleled access into the early medieval Irish geopolitical landscape, with references to the events, lives, and deaths of prominent Irish figures from this period. By distilling these entries into points of data, there is much to be gleaned from the collected sources. Thus, while the Irish Annals are neither unbiased nor without their chronological flaws, the collected annals “provide a valuable window to the past.”[170]

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[169] R. Flower, *The Irish Tradition* (Oxford: Clarendon Press, 1947).; James Carney, "Language and Literature to 1169," in *A New History of Ireland, I: Prehistoric and Early Ireland*, ed. D. Ó Cróinin (Oxford: Oxford University Press, 2005).; Francis Ludlow, "The Utility of the Irish Annals as a Source for the Reconstruction of Climate" (Doctor of Philosophy University of Dublin, Trinity College, 2010).

In this section, a GIS survey is conducted for general activity within *AI* and *AU*, which undertakes to establish a geographical and chronological analysis for the years 800-850. By comparing Norse activity against the records of general events, this serves to test the hypothesis that the Irish sources can be understood as reliable records of Norse activity in Ireland.

2.III.1.i The Sources

The surviving manuscripts that contain the Irish Annals are not contemporary to the ninth century. These sources are later compilations, but scholars generally agree that the annals reliably incorporate earlier versions of the original texts.[171] The *Annals of the Four Masters* (*AFM*) and the *Annals of Ulster* (*AU*) provide the largest breadth of entries within the collective Irish Annals. *AU* survives, at the earliest, in 15th-century manuscripts (Trinity College Dublin MS H.I.8.), at which point the Irish Annals were still in the course of being compiled. *AFM,* so-called because of the ‘four masters’ who transcribed the annals from various sources at a Franciscan monastery in Donegal, was completed in 1636. *AFM* preserves earlier material from other sets of annals that have not survived to the present day. The O’Donnell’s of Donegal feature heavily in the source, and it can be argued that there is a strong anti-O’Neill bias within the text. Due to its propagandistic leanings, *AFM*, which record events in Ireland from Biblical prehistory up to 1616, has earned a reputation for not being the most reliable of witnesses.[172] The *Annals of Tigernach* (*AT*) have not been included, as the years 767-974 are missing from the surviving fourteenth century manuscript, and thus do not pertain to this period of study. This is unfortunate, as Hughes has noted that *AT* has entries that are not found in *AU.*[173] *Chronicon Scotorum* (*CS*) survives in a seventeenth-century manuscript, and scholars have identified the handwriting as belonging to the antiquarian Duald Mac Firbis. *CS* does appear to have come from the same family of annals as *AT,* and therefore Hughes suggests that one may use it to partly reconstruct the ancestor copy of *AT*.[174] Otherwise, *CS* contains very few entries that are not duplicates of other events related in other annals. The *Annals of Inisfallen* (*AI*), written in Munster, are the most contemporary of the annals; they were copied up to the middle of 1092 and then continued through a series of on-going hands.

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[170] Ludlow, "The Utility of the Irish Annals as a Source for the Reconstruction of Climate," 12.
[171] Peter Sawyer, *Kings and Vikings: Scandinavia and Europe, AD 700-1000* (London: Routledge, 1982), 25.

An immense amount of work has been done by previous scholars, including Daniel McCarthy and Kathleen Hughes, in order to bring coherence and order to the Irish Annals. Hughes provided a highly readable overview of the Irish Annals in *Early Christian Ireland: Introduction to the Sources*, which includes information regarding the dating and stemma of the surviving manuscripts, educated hypotheses relating to the origin of the annals, and the location of the scribes, and these offer details into the geographical areas that concerned the said scribes.[175] McCarthy rightly identified a need for a succinct chronology, where after he established: “a single chronological structure, based on a critical examination of all the annalistic chronological and record criteria, into which all annalistic records may be placed.”[176] This has been evidenced through his monumental monograph, *The Irish Annals: Their Genesis, Evolution, and History.*[177]

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[172] Bernadette Cunningham, *The Annals of the Four Masters : Irish history, kingship and society in the early seventeenth century* (Dublin: Four Courts Press, 2010).
[173] Kathleen Hughes, *Early Christian Ireland: Introduction to the Sources* (Ithica: Cornell University Press, 1972), 101.
[174] Hughes, *Early Christian Ireland: Introduction to the Sources*, 105-6.
[175] Hughes, *Early Christian Ireland: Introduction to the Sources*.

The Irish Annals have collectively been added to University College Cork’s digital project, CELT: the Corpus of Electronic Texts, which serves as a self-described, “searchable online textbase.”[178] Having these transcriptions and translations available online, in a digital and searchable format, has turned these pieces of text into a highly functional and easily accessible data-mine.

2.III.1.ii Geographical Survey

This project conducted a sample survey for both *AU* and *AI* from 800-50 in order to examine the geographical coverage of the annals. These 50 years, which oversee the beginning of the early Viking Age in Ireland, provide an excellent litmus test in order to identify where and when the annals are most likely to record events in Irish history. As such, this project provides insight into whether the annals can be trusted to provide a geographically representative sample of Norse activity that allows for the identification of meaningful spatial patterns.

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[176] Ludlow, "The Utility of the Irish Annals as a Source for the Reconstruction of Climate," 37.; D. P. McCarthy, *The Irish Annals: Their Genesis, Evolution and History* (Dublin: Four Courts, 2008).
[177] McCarthy, *The Irish Annals: Their Genesis, Evolution and History*.
[178] "CELT: Corpus of Electronic Texts," UCC, 1997-2019, https://celt.ucc.ie/index.html (The Free Digital Humanities Resource for Irish history, literature and politics.).

Matching datasets were created for both *AU* and *AI,* into which every event recorded by the annals was filed. Information was collected under the columns: ‘corrected year’; ‘text year’ which represented the exact passage (i.e., *U800.1)*; ‘location’ (given); ‘modern location’ (if identifiable); ‘latitude’; ‘longitude’; ‘passage’; ‘event,’ which described the specific action that took place, i.e. a death or a battle; ‘activity,’ which broke down the event so that it could be identified as Norse, Religious, Secular, Environmental, or Not Applicable. Norse activity pertains to events in which the Norse were involved, whether that be at a religious institution or amongst secular members of the society. It should be noted that each event has been classified under one chosen type, and the following rules were followed regarding classification: Norse activity supersedes other event-types. Religious activity includes a wide range of events, from the death of a clergy member to the destruction of a church, and thus itself supersedes Secular activity, which represents battles, kingships, assemblies, etc. Environmental activity marks any natural phenomena, including weather, cosmic events, or outbreaks of disease. Not Applicable occurs only in entries that mark the kalends of the new year, and do not pertain to any of the above activity indicators.

In creating the map (for example, see Figure 2), I traced and applied layers for the early medieval Irish kingdoms of Connacht, Munster, Northern O’Neil, Southern O’Neil, Brega (here separate from the Southern O’Neil territories), Ulaid, Airgialla, Ossory, and Leinster. The kingdom boundaries were created by applying general territories identified in Charles-Edwards’s *Early Christian Ireland* against modern county and province boundaries.[179] Viewers should not take these boundaries as exact and/or definitive. The presence of these kingdom layers is instead meant to suggest insights into the patterns of recorded event activity.

In the process of assigning geolocations to activity, it became apparent that mapping the annals would not be inclusive of all events because not all events were satisfactorily identifiable to a given location. Instead, the visual representation of these maps must be understood as a sample of the full evidence, which provides only an indication of the geographical coverage of the two annals. The survey map of *AU* 800-50 (Figures 3 and 4) suggests that the scribes were located in, and more concerned with, activity that took place in the central northeast of Ireland; in contrast, they had less awareness of, or less interest in, events in the west and the south. While there are multiple references to the kingdoms of Connachta (Connaght) and Mumu (Munster), the generalized locations were not deemed eligible for geolocation. To be exact, of the 590 identified events, only 302 were considered eligible for georeferencing. That only 51% of the identified events could be georeferenced should not be viewed as problematic; on the contrary, the visual-spatial focus of the central northeast on the map furthers the argument that the scribes were located and writing for an audience in this general area.

The survey map for *AI* (Figures 1 and 2), in comparison, is frustratingly stark when contrasted against the visual geospatial representations of *AU*. However, there is enough evidence to suggest that *AI* focuses its lens on the central south, while the scribes retain some awareness of happenings in the north. It is further clear that the scribes possess little interest in Secular activity, with the survey providing visual evidence that predominantly represents Religious and Norse activity. On the other hand, while 81 events can be identified in the years from 800-50, only 37 events were deemed eligible for georeferencing.

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[179] T. M. Charles-Edwards, *Early Christian Ireland* (Cambridge: Cambridge University Press, 2000), 16, 18, 23, 39, 52-3, 56-7, 236, 532.

When mapped against each other (Figure 5), the geographical coverage of both *AU* and *AI* becomes even clearer*.* Again, the central northeast focus of *AU* is clearly defined in the mapping process*,* while *AI* clearly favors the south and west. That being said, there is definite overlap between the provenance of the two sources, and a comparison of the databanks confirms that *AU* and *AI* share entries. Furthermore, *AI* has few entries that are not also referred to in *AU*. Thus, while *AI* are the oldest surviving set of annals, *AU* provides the most coverage of activities – both spatial and temporal.

This allows conclusions to be made regarding duplication and best/preferred witness of the original contemporary record. As discussed above, a source of difficulty in mapping and analyzing Norse activity pertains to the collection of multiple sources that refer to same event. In regard to the Irish Annals, Hughes surveyed the duplication of the two annals, and she noted that while *AI* has ninety-five entries that do not coincide with the events recorded in *AU* from 790-904, there are likewise ninety-three entries that are shared between the two sources.[180] These ninety-three entries are as frustrating for their similarities as they are for their differences. Yet, the value of *AI* is clearly in its coverage of the southwestern area, while the project benefits from *AU's* quantity of events. Furthermore, although both were compiled long after the events of the early Viking Age, *AI* is clearly very selective in its transcription, suggesting that contemporary scribes included what they considered to be the most important. As such, a case may be made for *AI* being used as the *a priori* source. Where duplicate events are not recorded in *AI*, *AU* will be used as the preferred witness over *AFM* and *CS*. Where duplicate events are in neither *AU* nor *AI*, preferred witness will be chosen from the remaining sources depending on the details of the event provided by the additional sources.

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[180] Hughes, *Early Christian Ireland: Introduction to the Sources*, 109.

By understanding the generalized geospatial patterns of the contemporary records, it will prove easier to understand the gaps and clusters of Norse activity throughout Atlantic Europe.

2.III.1.iii Chronological Survey

Having considered the geographical distribution of the annals, a statistical analysis of activity was conducted in order to examine whether and how the recording patterns changed as Norse activity increased. Table 2 represents the total count of recorded events in *AU* from 800-850. It should be noted that this is not indicative of the total number of entries, because individual entries often contain multiple events. Table 2 provides an interesting picture of *AU*'s interests, suggesting that the scribes – members of a religious class - were equally concerned with secular and religious matters. The Norse took up 20% of entries, which suggests that the Norse were a large and powerful presence on the island during this fifty-year period. The geographic distribution maps (Figures 1-4) also provide evidence that the Norse did not isolate themselves in one part of the island, but instead were active throughout. Just as religious and secular activity in Munster and Connacht are under-represented, it would be fair to propose that the Norse were also far more active in those regions than the map above would suggest.

This contrasts against the statistical analysis of *AI*, in which the Norse represent only 12% of entries, while Secular interests dominate over Religious activity, with 47% compared to 37% respectively (Table 1). This would then contradict the proposal above, that the Norse are under-represented in the south due to *AU*'s lack of interest in the region. However, 81 total entries for the 50-year period under study suggests under-representation of the area in general. It holds that *AI* is not comparable to a statistical analysis of *AU* because the numbers are so low.

The next step was to break down the surveys into ten-year periods in order to identify patterns in the chronology. *AU* records 106 entries for the years 800-10, 116 for 811-20, 114 for 821-30, 137 for 831-40, and 117 for 841-50. The number of events averages 118 for each ten-year period. Event records thus remain relatively consistent over the survey period, excepting 831-40, which sees nearly 20 events above average. This period also sees a marked increase in Norse activity, jumping from 18% in 821-30 up to 34%; the final period of the survey, 841-50, sees Norse activity increase only two percentage points up from 831-40, to 36%. Secular and Religious both receive roughly the same attention in the records, though Secular activity does receive slight precedence overall.

The picture is very different for *AI*; Table 1 has already demonstrated the precedence of Secular activity over Religious happenings. Religious events are recorded with more frequency in the first two decades of the ninth century, though dramatic shift towards secular interest begins in the 820s. The Norse, meanwhile, are far less significant in the geographically southern record than they are in the central northeast *AU*. Indeed, the first Norse raids on Ireland – in the 790s and early 800s – are not mentioned by *AI;* the Norse are first referenced in 823 when they raided Bangor. Four further events are recorded in 824, then two again in 833, and only in the 840s are events recorded outside of apparent clusters. Despite a large geographical spread, which stretches from Skellig Michael in the southwest to Bangor in the Northeast, all ten Norse events can be georeferenced. This suggests that the later medieval scribes transcribing earlier records, who were likely working from Emly or Lismore, considered the memory of Norse attacks seriously enough to include their activities and location across the entirety of the island.

2.III.1.iv Conclusion

To address the question posed at the beginning of this section, the above survey suggests that the Irish Annals can be read as reliable witnesses to the phenomenon of Norse activity. The surveys indicate that the quality of the annals changed in response to the Norse invasion. This is most apparent within the chronological surveys. Where religious events were the main focus of *AI* from 800-21, with increasing pressures from the Norse, the scribes shifted their focus to secular matters. *AU* does not encounter the same drastic decline in number of Religious records, and incorporates the Norse as an equal third player in Irish geopolitics. Geographically, the Irish scribes show a clear awareness of the Norse across their normal geographical purview of events. Indeed, their awareness of events appears to stretch into western Ireland as news of Norse incursions on this front reached the eastern monastic centers. As such, this section ultimately demonstrates that the history of the Norse in Ireland cannot be read in a single stand-alone annal. By compiling the events from all sources, the most complete picture of Norse activity can be drawn.

2.III.2 The Frankish Annals

In 751, Pippin usurped the Frankish throne after deposing King Childeric, and the crown passed from the ruling Merovingian dynasty to the ambitious Carolingian clan. The chronological sources that followed resulted from a desire to legitimize the power of the Carolingians. This process served two purposes: (1) Pippin’s heirs discredited the Merovingians, and (2) the new Carolingian rulers proved that they had rightfully seized the crown.[181] Rosamond McKitterick states: “The Franks inherited historical traditions from the Jews, the Romans, and the early Christians, but exploited these within their own chronological and political schemes for their own ends.”[182] The scribes of the Frankish Annals, like the Irish Annals, were likely clerics, but scholars have determined that these chronicles were produced from within the royal court; they have a highly secular and political focus. In response to McKitterick’s claim of inheritance for historical traditions, it should also be noted that Irish ecclesiasts had long inhabited the Frankish courts and may have inspired or contributed to production of chronological sources.

In this section, I review the Frankish sources used for the project and conduct a GIS survey of three of them in order to analyze their geographic extent. Unlike the Irish Annals above, the selected Frankish sources cover their own unique time periods, and thus will not be compared against each other on a chronological scale. Instead, the experiment's purpose served to clarify the spread of each source individually.

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[181] Rosamond McKitterick, "The illusion of royal power in the Carolingian Annals," *English Historical Review* 115, no. 460 (Feb 2000), https://doi.org/DOI 10.1093/ehr/115.460.1.

[182] Rosamond McKitterick, "Constructing the Past in the Early Middle Ages: The Case of the Royal Frankish Annals," *Transactions of the Royal Historical Society* 7 (2009): 103, https://doi.org/10.2307/3679272.

2.III.2.i The Sources

The *Annales Regni Francorum* (*ARF,* also the *Royal Frankish Annals*) were first written in the late 780s or early 790s, and scribes later revised these earlier entries at some point after 801. Entries were then contemporaneously added to cover the years up to 829. Copies were widely distributed throughout the Frankish Empire during the 9th century and surviving manuscripts can be traced through five manuscript families. However, no original texts survive. The identity of the author and the precise place of production of the *ARF* remains unknown, but it is generally accepted that it was written by a scribe associated with the royal court.[183] According to Janet L. Nelson, despite its focus on Charlemagne and the Frankish nobles, "there is no evidence that Charlemagne ever sought to influence the annals' content, or to exploit the annals for what would nowadays be termed 'public relations' purposes."[184] Neither did his son, Louis the Pious, attempt to interfere with *ARF*'s continuation from Charlemagne's death in 814 to its completion in 829. That being said, its foundation is bound up in its geopolitical make-up, and its geographical interests accorded with the court's own.

Alternatively, the *Annales Bertiniani* (*AB,* also the *Annals of St-Bertin*) and *Anneles Fuldanes* (*AF,* also the *Annals of Fulda*) can be attributed to specific authors and locations, and McKitterick refers to them as “ostensibly fuller and more sophisticated continuations,” of *ARF*. [185] *AB* record events from 830-882, and there is no break or explanation offered as to why *ARF* stops and *AB* begins. Contrary to its title, the source was not composed at the monastery of St-Bertin but is associated with the monastery because the only complete manuscript of the text, which was written during the eleventh century, was preserved there. While the scribes at St-Bertin did not produce the original source, neither did it remain a product of the royal court after 843, as *ARF* had been. Nelson believes that Prudentius took over the writing of *AB*, and when he became Bishop of Troyes in 843, he took the chronicle with him to his episcopal see, ”working for the most part at a distance from the royal household.”[186] It is at this point that the tone of *AB* changes, and the recorded information takes on a, “spasmodic quality,” when the scribe, “acquired a more personal and ‘private’ tone.”[187] It is then supposed that Hincmar of Rheims took over from Prudentius and continued the record until his death in 882; like Prudentius’s record before him, the continuation of *AB* was also marked by its production away from the royal court.

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[183] McKitterick, "Constructing the Past."

[184] , ed. and trans. Janet L. Nelson*The Annals of St-Bertin*, vol. 1, Ninth-Centuries Histories (Manchester & New York: Manchester University Press, 1991), 4.

AF serve as a companion to *AB,* and covers the period 838-901*;* while *AB* has been determined to be interested in the west, *AF* “offer the major narrative account of the east Frankish kingdom from the death of Louis the Pious down to the end of the ninth century*.*”[188] *AF* is so called because of its attribution to the monk and hagiographer Rudolf of Fulda, although Timothy Reuter suggests that its authors are not as identifiable as *AB.*[189] However, it is not only the authorship that provides confusion. Three disparate groups of manuscripts transmit *AF*, and they often diverge from one another, which makes transcribing and editing a complex and troubling process. Reuter outlines the history of scholars' attempts to provide coherent and accurate editions, with a focus on the debate between Friedrich Kurze's edition, which appeared in 1891, and Siegmund Hellmann, who pointed out inconsistencies to Kurze's work in 1908. Reuter identifies the sources of the problem: namely, that Kurze and Hellman treated *AF* as a finished literary manuscript, instead of its more accurate description as, "a bundle of loose notes and jottings."[190] Because it does not seem to have the same coherency as *AB*, when there are duplicates between *AB* and *AF*, *AB* will serve as the best/preferred witness.

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[185] McKitterick, "Constructing the Past," 115.
[186] Nelson, *The Annals of St-Bertin*, 8.
[187] Nelson, *The Annals of St-Bertin*, 9.
[188] , ed. and trans. Timothy Reuter*The Annals of Fulda*, vol. II, Ninth-Century Histories (Manchester & New York: Manchester University Press, 1992), 2.

The *Annales Vedastini* (*AV,* also the *Annals of St-Vaast*), which records events from 874-900, seems to pick up where *AB* leaves off, and covers the history of the western Frankish kingdoms. The text survives in four manuscripts, the most reliable of which was inserted into the *Annales Lobienses*,[191] and is dated to c. 1000.[192] There are two manuscripts residing in Brussels at Koninklijke Bibliotheek/Bibliothèque Royale, *nr.*s 15835 and 6439-6491, and the final manuscript is at the Bibliothèque Municipales de Douai, *Duacensis nr.* 753. From these four manuscripts, three critical editions have been compiled: G. W. Pertz,

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[189] Reuter, *The Annals of Fulda*, 2.
[190] Reuter, *The Annals of Fulda*, 5-7.
[191] Sören Kaschke, "Annales Vedastini," ed. Graeme Dunphy and Christian Bratu, *Encyclopedia of the Medieval Chronicle* (Brill Online, 2016).
[192] Anonymous, Annales Vedastini, 1000, SBG-Hss, Chronicon Lobiense - Staatsbibliothek Bamberg Msc.Patr.62, Msc.Patr.62, Staatsbibliothek Bamberg, Diözese Lüttich (Kloster Lobbes?), https://nbn-resolving.org/urn:nbn:de:bvb:12-sbb00000158-9.

1826, based on *Bruxellensis nr.* 15835;[193] C.C.A Dehaisnes, 187, using three of the four manuscripts, exclusive of *Bruxellensis nr.* 6439-6451;[194] and Bernhard von Simson, 1909, based on all four manuscripts.[195] While there are two German translations in existence,[196] until recently there are only two edited selections of *AV* in English,[197] as well as selections in Danish[198] and Dutch.[199] In 2017, Steve Bivans self-published a critical English translation of the Annals of St-Vaast based on von Simson's critical edition, and Bivans's edition remains to-date the only complete English translation of the source.[200] An English translation by Simon Coupland was promised by the *Manchester University Press* series, though the publication has been 'forthcoming since Nelson's translation of *AB* in 1991.[201]

Filling in various gaps in the record is *Annales Xantenses* (*XA*, also the *Annals of Xanten*), which covers the years 790-874. The source survives in a 12th century manuscript, Cotton Tiberius C.XI, at the British Library. G.W. Pertz, writing in the 19th century believed the annals were written at the monastery of Xanten, though Heinz Löwe has since suggested that the entries for the years 790-860 were written at Lorsch by a royal chaplain named Gerward, following which the annals moved to Cologne.[202] As is the case for *AV*, only sections of *AX* have been translated in English.[203] Coupland is also expected to release an English translation of *AX* for the *MUP* series.[204] Because *AX* is not considered one of the major Frankish sources, any entries from *AB, AF,* and/or *AV* that are repeated in *XA* will be given preference.

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[193] G. W. Pertz, "Annales Vedastini," *MGH SS* I (1826).
[194] Chrétien César Auguste Dehaisnes, *Les Annales De Saint-Bertin et De Saint-Vaast, Suivies de Fragments d'une Chronique Inédite, Hincmar, Archbishop of Reims,; Ca. 806-882* (Paris, 1871).
[195] Bernhard von Simson, "Annales Xantenses et Annales Vedastini," *MGH SRG* (1909).
[196] Reinhold Rau, *Jahrbücher von St. Bertin. Jarhbücher von St. Vaast, Xaantener Jarhbücher* (Berlin: Rütten & Loening, 1956).; Julius von Jasmund, *Die annalen von St. Bertin und St. Vaast. Nach der ausgabe der Monumenta Germaniae übersetzt* (Leipzig, 1889).
[197] Paul Edward Dutton, *Carolingian Civilization: A Reader* (Peterborough: Broadview Press, 2004).; James Harvey Robinson, *Readings in European history; a collection of extracts from the sources chosen with the purpose of illustrating the progress of culture in western Europe since the German invasions* (Boston: Ginn & Co, 1904).
[198] Erling Albrectsen, *Vikingerne i Franken: skriftlig kilder fra det 9. jårhundrede* (Odense: Odense universitetsforlag, 1976).
[199] "De Annalen van Sint-Vaast," Gjallar: Noormannen in de Lage Landen, http://home.tiscali.nl/gjallar/Bronnen_AV.htm.
[200] Steve Bivans, ed., *Vikings, War, and the Fall of the Carolingians: A Critical English Translation of the Annals of St-Vaast* (Shireness Publishing, 2017).
[201] Reuter, *The Annals of Fulda*, 143.; Nelson, *The Annals of St-Bertin*, 227.

Nelson and Marlene Meyer-Gebel feel confident that the chronological information of the collected Frankish Annals is relatively accurate, and that, "some chronological errors within or across particular annals are best accounted for on the assumption that information reached [the scribes] belatedly... nevertheless, errors are remarkably few."[205] Geographically, the Frankish sources have not been surveyed, at least in English, with the same intensity as both the Irish Annals and the *Anglo-Saxon Chronicle* (which will be discussed below). A geographic sample thus becomes a necessary tool. McKitterick sites the importance of Aachen, where "the production of the *ARF* coincides with the creation by Charlemagne of a large public court, focused on the new palace at Aachen."[206] Nelson has noted in regard to *AB*, Louis preferred Ingelheim or Compiènge over Aachen as a winter palace, and that the writing of the record moved to Troyes after 843.[207] J. Fried suggests that *AF* serves as an “eminently east Frankish” source,[208] though Reuter has argued that this was a gradual process. More specifically, he warns: “the deficiencies of *AF* here reflect deficiencies in the authors’ own knowledge. This should be borne in mind when considering east Frankish ‘policy’ towards the Slavs and Northmen.”[209] It thus became imperative to investigate how reliable and representative the Frankish sources are, with the goal to understand the extent to which the Norse, and in particular the Danish kingdom that lay north of the Frank’s Saxon border, received fair representation.

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[202] Beata Spieralska, "Annales qui dicuntur Xantenses," in *Encyclopedia of the Medieval Chronicle*, ed. Graeme Dunphy and Christian Bratu (Brill Online, 2016).
[203] Robinson, *Readings in European history; a collection of extracts from the sources chosen with the purpose of illustrating the progress of culture in western Europe since the German invasions*.
[204] Reuter, *The Annals of Fulda*, 144.
[205] Nelson, *The Annals of St-Bertin*, 13.; M. Meyer-Gebel, "Zur annalistischen Arbeitsweise Hinkmars von Reims," *Francia* 15 (1987).
[206] McKitterick, "Constructing the Past," 115.
[207] Nelson, *The Annals of St-Bertin*, 5, 9.

2.III.2.ii Geographical Survey

ARF, *AB,* and *AF* were selected for geographical surveys. If *ARF* concentrated on Charlemagne and his court, *AB* focused on the west, and *AF* looked to the east, it was necessary to establish how often and in what context the Norse were mentioned, especially in comparison to the Frankish kingdoms’ other neighbors and its interests further abroad. The survey for each of the three Frankish sources mainly followed the same structure as the Irish surveys: ‘year’; ‘location’; ‘latitude’; ‘longitude’; ‘passage’; ‘event,’ which described the specific action that took place, i.e. a death or a battle; and ‘activity,’ which broke down the event so that it could be identified as Norse, Religious, Secular, or Environmental. It was not necessary to correct the years, as was the case for the Irish survey, and all events could be identified. Furthermore, unlike the Irish survey, each survey of a Frankish source covered a different period. While the Irish sources are relatively continuous throughout the ninth century, the Frankish Annals – as discussed above – cover different periods, and thus it would not be feasible to try to compare them on the same chronological scale. Thus, *ARF* samples the years 800-819. *AB* surveys 830-849, and *AF* covers 840-859.

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[208] J. Fried, "Boso von Vienne oder Ludwig der Stammler: Der Kaiserkandidat Papst Johannes VIII," *DA* 32 (1976): 202.
[209] Reuter, *The Annals of Fulda*, 11.

All precise locations referenced were recorded and geolocated, even those where activity did not occur; for example, if a clergyman from Basel was present at an assembly, then Basel was geolocated, and attributed as a ‘religious’ activity; this is in addition to the location of the religious assembly itself. The recording of a assembly goer’s origin is justified because travel from this location occurred, and the recording of origins suggests knowledge of these areas, at least abstractly, by the scribe. On the other hand, general areas, such as Spain or Saxony, were not eligible for geolocation if they were referenced in the annals. By including only specific references, the exercise aims to analyse evidence unbiased by my own understandings of the annals.

In creating the Frankish kingdom boundaries maps, I traced and applied layers for the various stages of the Carolingian Empire, beginning with the kingdom of Charlemagne c. 796 (Figure 9), followed by the divisions of the Treaty of Verdun c. 843 (Figure 11), and finally the divisions from c. 853 (Figure 13).[210] The map of Charlemagne’s territories was created by combining three maps: The ‘Carolingian Empire’ from McKitterick’s *The Frankish Kingdoms under the Carolingians,* a map of place names from Costambey, Innes, and MacLean’s *The Carolingian World,* and ‘The Carolingian Empire at the Death of Charlemagne in 814’ from Scholz’s *Carolingian Chronicles.*[211] The layers created for the kingdom after the Treaty of Verdun and c. 853 were both drawn from a combination of McKitterick and Costambey et al.[212] As above with the Irish kingdoms, readers should not take these boundaries as exact and/or definitive. The presence of these kingdom layers is instead meant to suggest insights into the quality of recorded event activity.

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[210] The kingdom of Lothar I c. 853 was then divided into three kingdoms that have not been traced: the kingdom of Lothar II to the north, the kingdom of Charles of Provence to the southwest, and the kingdom of Emperor Louis II to the southeast. The partition of Meersen, c. 870 has also not been traced for layering.

Beginning with *ARF*, the period 800-819 was chosen as the sample period because 802 marks a turning point in Danish relations with the Franks, when the king of the Danes sent ambassadors to make peace with the Franks. Beyond covering the beginning of Franco-Danish state relations, it also surveys the final years of Charlemagne’s reign (r. 768-814) and the transition of his power to his son, Louis the Pious (r. 813-840).

As expected, the survey of *ARF* (Figures 8 and 9) heavily features the main regions of the Frankish Empire. Aachen, as Charlemagne’s preferred residence, is referenced the most. Geographically, the spread of the survey takes into account events occurring in Spain and Italy, as well as important events in Istanbul (Constantinople). Jerusalem is also mentioned, though not viewable within the boundaries of the figure shown. There is complete silence from within Eastern Europe, which reflects the borders of the Frankish Empire, though it does pose the question as to why the Franks were unfamiliar with locations beyond their eastern borders. Furthermore, while events in Ireland and England are mentioned, only generalized references are made, and were thus not deemed eligible for mapping.

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[211] McKitterick, *The Frankish Kingdoms under the Carolingians, 751-987*, 374-5.; Marios Costambeys, Matthew Innes, and Simon MacLean, *The Carolingian World*, Cambridge Studies in Medieval Life and Thought, (Cambridge: Cambridge University Press, 2011), 162.; Scholz and Rogers, *Carolingian Chronicles*, 98.

[212] McKitterick, *The Frankish Kingdoms under the Carolingians, 751-987*, 380, 81.; Costambeys, Innes, and MacLean, *The Carolingian World*, 402.

AB's chronology, which runs from 830-82, surveys a later period of Frankish history and makes a contemporaneous survey of *ARF* impossible. As such, the years 830-49 were chosen to survey because this period overlaps with the end of Louis the Pious' reign and covers the early internal conflicts that resulted in the breakdown of the Carolingian Empire. Figures 10 and 11 reveal that *AB*'s references are both narrower in scope and more compact within the western Frankish territories. Similar to *ARF*, there appears to be a lack of interest in Britain and Ireland. Indeed, these islands are only generally referenced in accordance with Norse attacks. Furthermore, there are fewer references to activity in Italy and the eastern reaches of the empire. In breaking down activity, it can be seen that secular interests dominated the source, although the Norse presence was clearly being felt along the Gallic Coast and on western Frankish rivers.

AF, which covers the period from 838-901, was surveyed for the years 840-59. This allowed for some overlap with *AB*, but also elongated the period of study for the Frankish sources. Figures 12 and 13 represent the geolocated references for *AF*. The map is sparse compared to the events mapped for *ARF* and *AB*, and the scribes were evidently more geographically limited in their knowledge. There appears to be little interest in activity abroad, with references to neither Constantinople nor Jerusalem. The referenced locations tend to focus on the eastern territories of the Frankish kingdoms; no events are eligible for geolocation along the Gallic Coast, and the furthest west event that was recorded occurs in the form of a Norse attack in Tours.

By mapping all three chronicles against one another, Figure 14 confirms that *ARF* had the greatest geographic spread, from Reric and Hedeby in the north, to Jerusalem and Constantinople in the east. Figure 15, which compares only *AB* and *AF,* confirms arguments that *AB* tended to focus on the west and *AF* was representative of the east. All three sources do have similar interests in the main courts of the Frankish kings, namely Aachen and centers around Mainz/Worms/Frankfurt. Thus, the surveys suggest that *ARF* has the largest breadth of geographic representation, while *AB* and *AF* must be used in conjunction with each other in order to accurately represent Frankish interests and, more specifically, Norse activity throughout the Frankish kingdom.

2.III.2.iii Chronological Survey

In breaking down activity labels during the compilation of the database, it became clear that the criteria for labelling Frankish activity would be different from the Irish sources. While labelling for ‘Religious’ activity superseded ‘Secular’ in the Irish Annals, ‘Secular’ took precedence for the Frankish sources. The reasoning for this is most likely because these sources were written at court, as opposed to the Irish sources, which were written at ecclesiastical centers. The criteria used for religious activity is, therefore, different from Irish religious activity; for example, clergymen are used for secular activity, such as when bishops are sent as ambassadors to foreign courts. Furthermore, while ecclesiastical centers tended to be targets of Irish kings, lending religious significance to a secular attack, these sorts of events do not occur in the Frankish annals. On the contrary, by focusing on the king and his court, the scribes turn even religious activity, such as Easter prayers at a certain palace, ‘Secular.’ ‘Religious’ activity is here applied to events pertaining to the church outside of the court, for example the appointment of a bishop or the natural death of a religious figure.

As such, it comes as no surprise that a statistical analysis of *ARF* was predominately interested in secular activity. From 800-19, secular activity takes up about 78% of the references, while religious activity accounts for only 10%. These percentages don't change dramatically when the 20 years are broken down into decades; in fact, only Norse activity shifts, taking up 4% of references from 800-09, to 11% from 810-19. (See Figure 16/Table 3.)

The count for *AB* secular activity was somewhat skewed by a survey of the Frankish kingdoms that was undertaken by the court in 837, in which the states' borders were defined using cities and their surrounds; second, the Treaty of Verdun has a similar statistical breakdown, in that the majority of activity must be considered secular. Furthermore, the survey covers a later 20-year period, during which Norse activity increases in the latter decade of the study. (See Figure 17/Table 4.)

AF has a slightly greater focus on ecclesiastical affairs, especially from 850-59, in which 28% of activity could be considered 'religious.' This decade also produced the highest percentage of environmental activity of the three source surveys, suggesting that the scribes of *AF* had different interests than those of either *ARF* or *AB*. (See Figure 18/Table 5.)

In comparing the statistical breakdown of activity, the scribes of *AF* appear to be less interested in the Norse than *AB*. The simple explanation is that the Norse were far more active in the west than they were in the east. Similarly, there is more interest in religious activity, which might be the result of decentralization from the secular aspects of the court and more interest in the periphery.

2.III.2.iv Conclusion

ARF serves as the most comprehensive Frankish source in both geographic coverage and scope of interest. Unfortunately for this study, *ARF* does not record events into the peak of Norse activity in the Frankish kingdoms. For that, it is necessary to rely on the *AB,* and later *AV* to understand the impact that the Norse had, particularly in the western kingdoms of the Franks. Because *AF* focuses so clearly on the eastern Frankish kingdoms, there are less references to the Norse. That being said, there is no rule of thumb in regards to best/preferred witness between *AB* and *AF* given the difference in their chronology and geographical coverage. In general, entries containing more detailed knowledge of a specific event are preferred.

2.III.3 The Anglo-Saxon Chronicle

As the rulers of Wessex grew in influence among the Early English kingdoms, they adopted their own chronicle based on the Frankish written traditions, likely in order to legitimate their rule. Unlike the Frankish Annals, only a single chronological source from this period survives: the *Anglo-Saxon Chronicle* (*ASC*), although various versions offer slight variations to the record. The *ASC* focuses heavily on events in southern Britain, despite occasional references to other parts of the island. This section seeks to establish the limitations of this southern influence on the recording of *ASC*, and furthermore to establish the best/preferred surviving manuscript containing the chronicle.

2.III.3.i The Source

Nicholas Brooks provides a rigorous introduction, laying out *ASC* as a "formidably complex set of annals, preserved unevenly in seven manuscripts, which are known to scholars by the sigla A, B, C, D, E, F, and G, and one fragment (H).[213] According to Michael Swanton*,* "it is probable that the Chronicles, as we know them, had their origins towards the end of the ninth century: a reflection of both the 'revival of learning' and revival of English national awareness during the reign of King Alfred."[214] In 892, King Alfred ordered the production of the common stock of chronicles in response to threats posed by the Norse invasion, and these scribes were based centrally at the West Saxon royal court.[215] After the entry for 449 and throughout the period of this study (up to 920), the various manuscripts for *ASC* concentrate on the royal history of the Anglo-Saxon kingdoms; more specifically, the succession, lineage, and campaigning activities of these kings. Therefore, *ASC* was almost certainly written by scribes connected to the royal court of the West Saxons in service of their king, and they would be less interested in Norse activity that had little effect on West-Saxon royal authority. Brooks has conducted statistical analysis of word-use to confirm his argument that *ASC* is intended for a royal audience, as opposed to an ecclesiastical one.[216] This indicates that *ASC* bears a closer resemblance to the Frankish Annals than it does to Irish chronicle sources, as Alfred and other Anglo-Saxon kings sought to adopt the Carolingian styles of kingship in order to legitimize their claims.[217]

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[213] Nicholas Brooks, "'Anglo-Saxon Chronicle(s)' or 'Old English Royal Annals'," in *Gender and Historiography: Studies in the Earlier Middle Ages in Honour of Pauline Stafford*, ed. Janet L. Nelson, Susan Reynolds, and Susan M. Johns (London: School of Advanced Study, University of London, 2012).

[214] Michael J. Swanton, ed., *The Anglo-Saxon Chronicle* (New York: Routledge, 1996), xviii.; Dorothy Whitelock, "The Prose of King Alfred's Reign," in *Continuations and Beginnings: Studies in Old English Literature*, ed. E. G. Stanley (London: Nelson, 1966).

[215] Peter Sawyer, *The Age of the Vikings* (London: Arnold, 1971), 16, 19.

[216] Brooks, "'Anglo-Saxon Chronicle(s)' or 'Old English Royal Annals'," 42-43.

Because these scribes were based at the court of King Alfred in Wessex, they are not representative of the rest of the island and the other kingdoms therein. Despite its southern focus, portions of northern chronicles may have been incorporated at later dates. However, it is likely that the (not unbiased) southern chroniclers redacted these later northern additions. For example, Peter Sawyer cites a tenth-century Northumbrian text, *Historia de Sancto Cuthberto*, which portrays relationships between the English and the Norse as more nuanced and complicated than the *ASC*'s depiction of Norse invaders on the British Isles and is not included in the *ASC*.[218] Yet the early entries of *ASC* are a composite document. Oral records were committed to writing during the seventh century when Christianity and a Latin-literate culture became prominent within the Anglo-Saxon royal courts. The early entries were transferred from a chronological summary appended by Bede to his *Ecclesiastical History*. Bede's work was then extended into the early ninth century. That *ASC* was composed in English is of interest, especially because it was more common for official records to be recorded in the official church language of Latin. Michael Swanton states: "That English prose was considered of sufficient status to be regarded as an appropriate medium for documentary record at this time is not surprising; but this is the first continuous national history of any western people in their own language."[219] This would thus support Brooks' theory that the document was meant for the royal court and not for the record of the church.

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[217] J. M. Wallace-Hadrill, "The Franks and the English in the Ninth Century: Some Common Historical Interests," *History* 35, no. 125 (1950), https://doi.org/10.1111/j.1468-229X.1950.tb00956.x.
[218] Sawyer, *Kings and Vikings: Scandinavia and Europe, AD 700-1000*, 24.
[219] Swanton, *The Anglo-Saxon Chronicle*, xx.

Similar to the Irish Annals, the narrative of *ASC* does not follow a coherent thread; the Anglo-Saxon scribes were "not concerned with historical perspective and will rarely relate one event to another."[220] Furthermore, computational disagreements regarding the date of Easter and the New Year caused chronological difficulties. Swanton thus retained the scribal manuscript dating, though he included adjusted dates in square bracket, "where helpful, if possible."[221] In this study, Swanton's adjusted dating system is used.

2.III.3.ii Geographical Survey

The two most complete manuscripts containing *ASC* are the Winchester Chronicle [A] and the Peterborough Chronicle [E]. These two versions were surveyed using two different 30-year periods, with Winchester sampling 810-39, and Peterborough sampling 820-49. It should be noted that the surveys were conducted prior to the period in which the Great Army arrived on Britain's shores, as the focus of the *ASC* rests almost entirely on the Norse during the years of the occupation and land-grabs. The main objective, which aligns with the surveys of the sources above, is to ascertain whether the Norse were given reliable and representative attention at a time when they were undertaking their earliest incursions.

In creating the maps, I traced and applied layers of the Early English kingdoms. The first map, which surveys the early English and British kingdoms c. 800, was created using the map of 'Britain at the time of Alfred's birth, c. AD 850,' from Alfred P Smyth's *King Alfred the Great*, and was used specifically for this geographical source study (Figures 20, 22)*.*[222] The second map, which will be used in the following chapter, incorporates the new territory of the Danelaw (see Figure 36). This map layer was created using different references, inclusive of Smyth's 'Britain shortly after Alfred's death, c. AD 900,' and a map of the Danelaw from D.M. Hadley's *The Northern Danelaw: Its Social Structure, c. 800-1100.*[223] As above, readers should not take these boundaries as exact and/or definitive. The presence of these kingdom layers are instead meant to suggest insights into the quality of recorded event activity.

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[220] Swanton, *The Anglo-Saxon Chronicle*, xvi.
[221] *Ibid.*

Compared to both the Irish and Frankish sources, *ASC* records altogether less activity, especially during this early period. Winchester records only 40 events, while Peterborough records only 38. Even more problematically, only ten events are eligible for georeferencing in the former source, while 12 can be georeferenced for the latter. In mapping both chronicles, it is clear that *ASC* has a southern focus (Figures 19-22). The northernmost event is a Secular battle at Dore, in the kingdom of Mercia. Otherwise, georeferenced events primarily occur in Wessex, Sussex, Kent and Essex. The Peterborough Chronicle makes note of a Norse attack at Quentovic in 842. Figures 21-22 reveal that Quentovic is actually much closer to the southern English Kingdoms than the southern English Kingdoms are to the north of Mercia or Northumbria. Furthermore, trade connections between Quentovic and the south of England are known from this time. Not pictured are five references to Rome from the Winchester Chronicle, four of which can be labelled Religious, and the final entry documents a fire, which is identified as an Environmental event. The maps reveal that the Early English scribes recorded the locations of Norse activity, all of which were violent during these periods. This would suggest that the Early English were keenly aware of the Norse incursions, and their attention to the sites of attack indicates that the Norse presence in Britain was tracked.

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[222] Alfred P. Smyth, *King Alfred the Great* (Oxford: Oxford University Press, 1995), 22.
[223] *Ibid.;* Dawn M. Hadley, *The Northern Danelaw : its social structure, c. 800-1100*, Studies in the early history of Britain, (London: Leicester University Press, 2000), 3.

2.III.3.iii Chronological Survey

A statistical analysis of the two *ASC* surveys suggests that Secular activity dominated over religious records. The Winchester Chronicle deals with Secular activity 55% of the time between 810-39, while Religious activity accounts for only 28%. The Peterborough Chronicle reveals similar figures from 820-49, with Secular activity at 50% and Religious events taking up only 16%. Norse activity accounts for 13% of the Winchester Chronicle, while it increases substantially for the Peterborough chronicle, standing at 32%. Both chronicles suggest that Norse activity increased over time, indicating that the threat grew towards the middle of the ninth century.

2.III.3.iv Conclusion

From these surveys, it is clear that *ASC* has a southern focus, and while activity in the north may have increased towards the end of the ninth century and into the tenth, it is suggested here that there are significant gaps in the record. Norse activity in the north of Britain was almost certainly not recorded to the desired extent, and while it can be assumed that the events recorded did occur, the absence of evidence outside the southern English kingdoms indicates that Norse activity is missing. As such, one should be wary of southern geographical bias within the *ASC*.

2.III.4 The Chronicle of Alfonso III

The *Chronicle of Alfonso III* (*CA*) was written for the Christian court of an early Spanish kingdom, which sought to establish itself within the Western European Christian tradition as distinct from the Islamic kingdoms in the south. Kenneth Baxter Wolf notes in his introduction to *Conquerors and Chroniclers of Early Medieval Spain* that medieval Christians viewed Muslims as more than a religious following; they were a community with a distinct political identity. This is specifically important because the chroniclers of the late ninth century were Christians who lived in Asturias, a mountain kingdom outside Islamic Al-Andalus.[224] *CA* records the success of the Asturian king, Alfonso III (866-910), against the Muslim forces they saw as invaders of Spain. It is therefore significant that *CA* mentions Norse attacks twice, in 844 and 859. These entries are valuable in that they show the extent of Norse exploration and travel. As such, a sample survey was conducted for the years 840-860.

2.III.4.i The Source

The *CA* survives in two forms, the Roda and the Ovido versions, both of which can be dated to the first quarter of the tenth century, during the rules of Alfonso III's successors. Because the last records relate to the death of Ordoño I in 866, it is suggested that the earliest records stem back to the early 880s. This dating would imply that Alfonso and his scribes sought to create a narrative in which, “Alfonso III was not to be just another conqueror of Spain, but the heir of a past regime, fighting to restore his birth right.”[225] This establishes a continuous Christian tradition, of which the recording of chronicles is a significant part.

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[224] Kenneth Baxter Wolf, *Conquerors and Chroniclers of Early Medieval Spain*, ed. Gillian Clark, Mark Humphries, and Mary Whitby, Second ed., vol. 9, Translated Texts for Historians, (Liverpool: Liverpool University Press, 1999), 13.

2.III.4.ii Geographical and Chronological Surveys

The record in *CA* is sparse compared to the other western European sources, with only 29 georeferenced events. Of those 29, eight are Norse, which constitutes over 27% of activities. This appears to be significant, when one considers that the Christian Asturians were constantly at war with both the Islamic state in Al-Andalus and their northern Frankish neighbors.

Secular events take place mostly within the territories ruled by the Christians in the north of Spain, though these events – mostly battles – take place within Muslim held territories further south. It is interesting that the Asturian chronicler takes the trouble to note the travels of the Norse, who raided along the Spanish Coasts, down to Northern Africa and through the Mediterranean, all the way to Greece. These travels appear to have taken place over a single group on one extended voyage, but the danger of this group was such that the scribe took care to describe their journey. It should be noted that the Franks are mentioned as lending aid to the Asturians, but because events do not take place within Frankish borders in *CA*, this geographic region is not referenced on the map. A question for later, then, must be why the Asturians were so interested in the movement of the Norse.

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[225] Baxter Wolf, *Conquerors and Chroniclers of Early Medieval Spain*, 9, 39.

2.III.4.iii Conclusion

CA does not provide in-depth coverage of Norse activity, as events occur in only two years of the record. This does not suggest that the Norse are not recorded faithfully. Quite the opposite, while the majority of Secular events were recorded along the north of Spain, Norse events have been georeferenced in the south and along the coast of the Mediterranean. This may indicate that the Spanish had a keen interest in the Norse, and thereby recorded them accurately through sheer curiosity.

2.IV Conclusion

This chapter investigated the bias of contemporary source material, allowing for misrepresentations in both time and space. In Ireland, different annals covered different areas of the island, and the use of multiple annals will produce the best geographical spread of Norse activity in this study. The Frankish Annals also provide a wide recording of the Norse, though both chronologies and geographies can be sporadic. The Early English Chronicles have a clear bias towards events in the south, and events in the north are almost certainly missing from the record. The Spanish source, meanwhile, contains only two years of Norse activity, and while this snapshot offers little on its own, combined with the Atlantic European sources, it fleshes out a geographic analysis of the Norse as intrepid explorers. To conclude, a comprehensive collection of the contemporary historical sources provides a broad geographical study of Norse activity. The surveys conducted make clear where readers can expect to see recorded events, and also the geographical extent of the scribes. With an understanding of the historical source limitations, the following two chapters seek to query the geographical and chronological cover of archaeological layers in order to expand the GIS study.

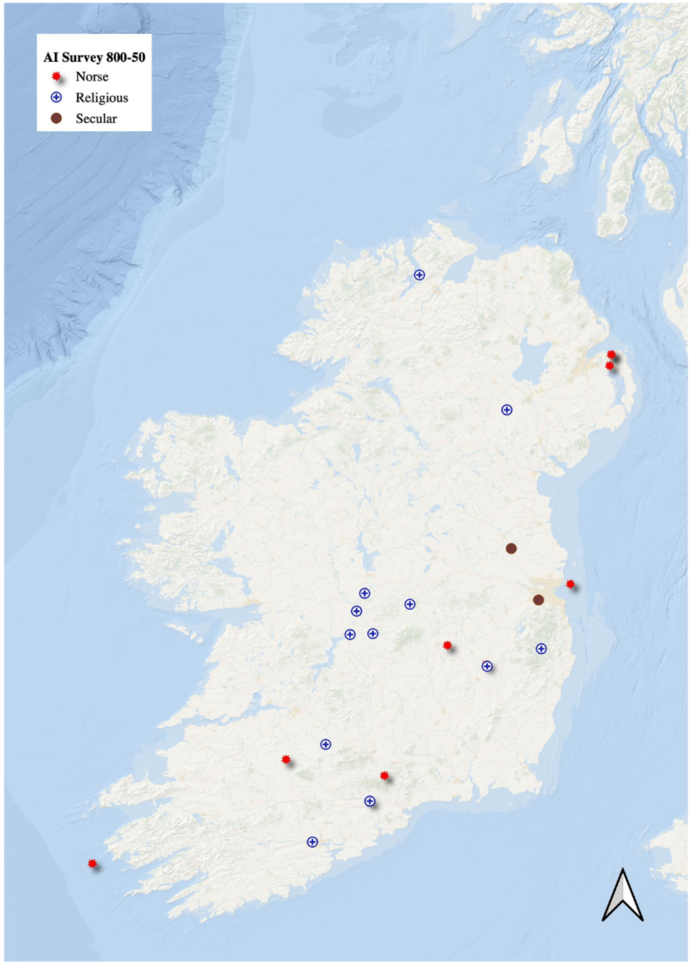
AI Survey 800-50
Norse
Religious
Secular

Figure 1: Annals of Inisfallen Survey 800-50

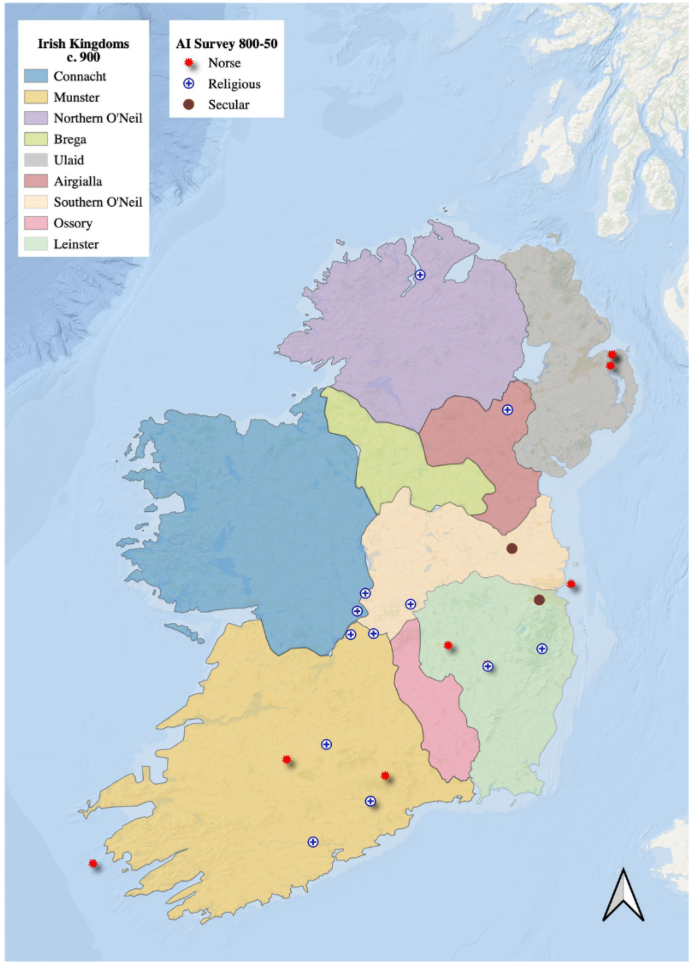
Irish Kingdoms c. 900
Connacht
Munster
Northern O'Neil
Brega
Ulaid
Airgialla
Southern O'Neil
Ossory
Leinster
AI Survey 800-50
Norse
Religious
Secular

Figure 2: Annals of Inisfallen Survey 800-50
with Irish kingdoms c. 900

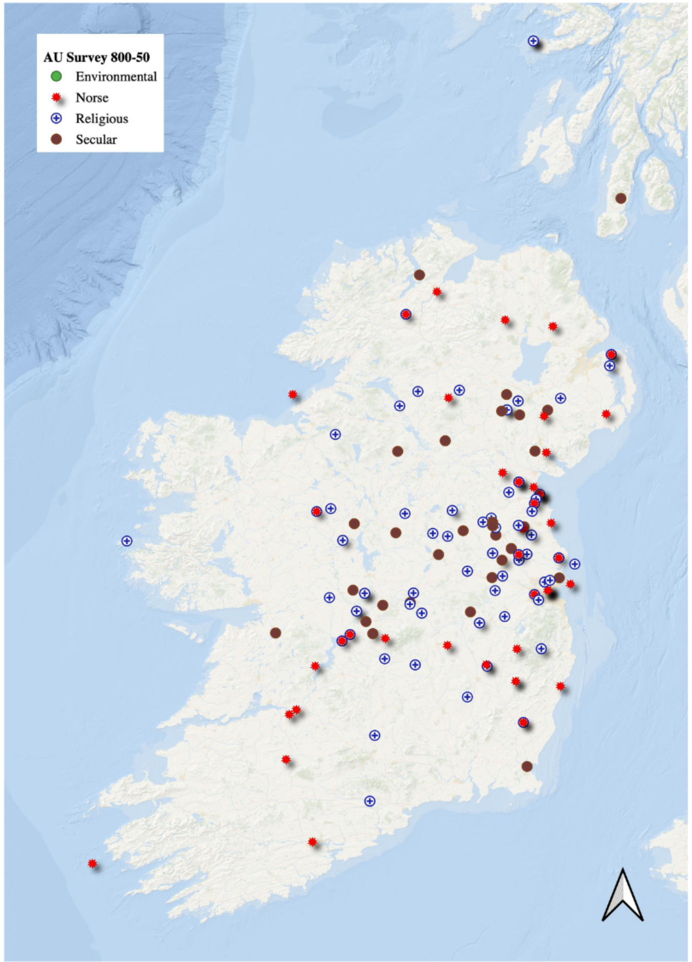
AU Survey 800-50
Environmental
Norse
Religious
Secular

Figure 3: Annals of Ulster Survey 800-50

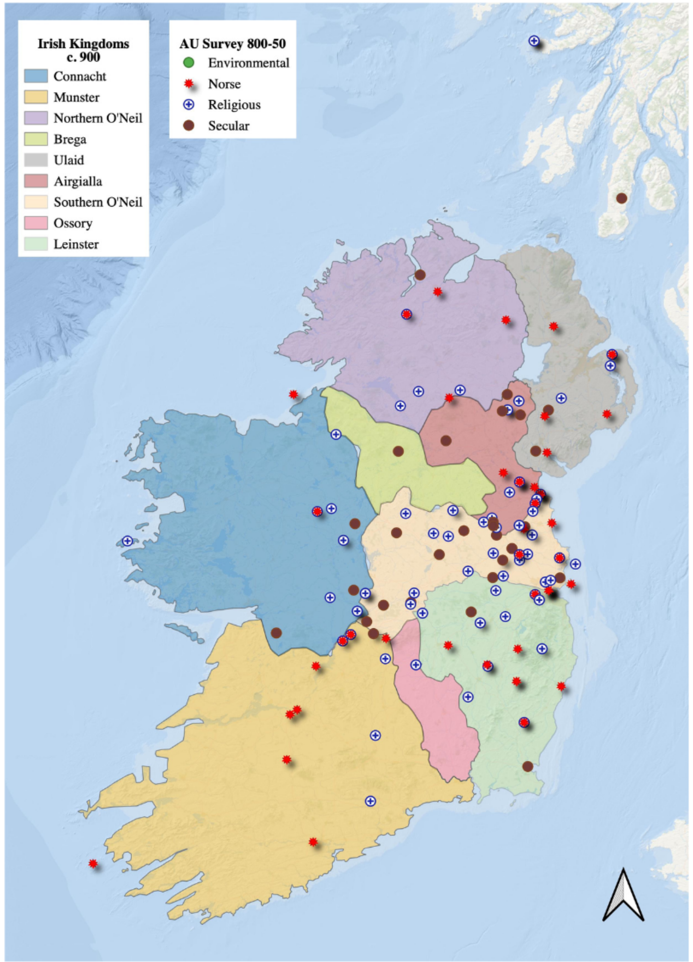
Irish Kingdoms c. 900
Connacht
Munster
Northern O'Neil
Brega
Ulaid
Airgialla
Southern O'Neil
Ossory
Leinster
AU Survey 800-50
Environmental
Norse
Religious
Secular

Figure 4: Annals of Ulster Survey 800-50
with Irish kingdoms c. 900

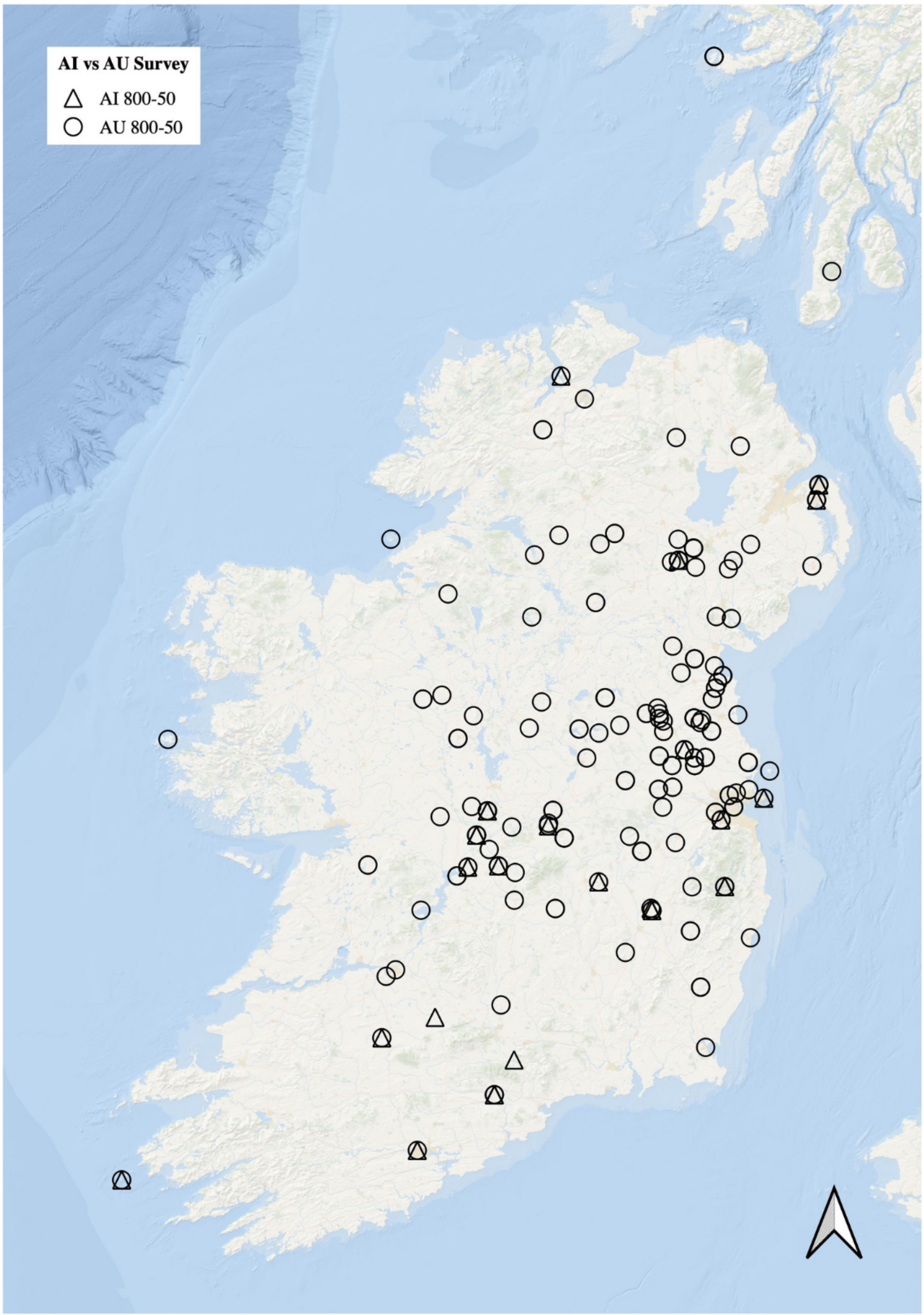
AI vs AU Survey
△ AI 800-50
○ AU 800-50

Figure 5: Comparative Survey
Annals of Inisfallen vs. Annals of Ulster
800-50

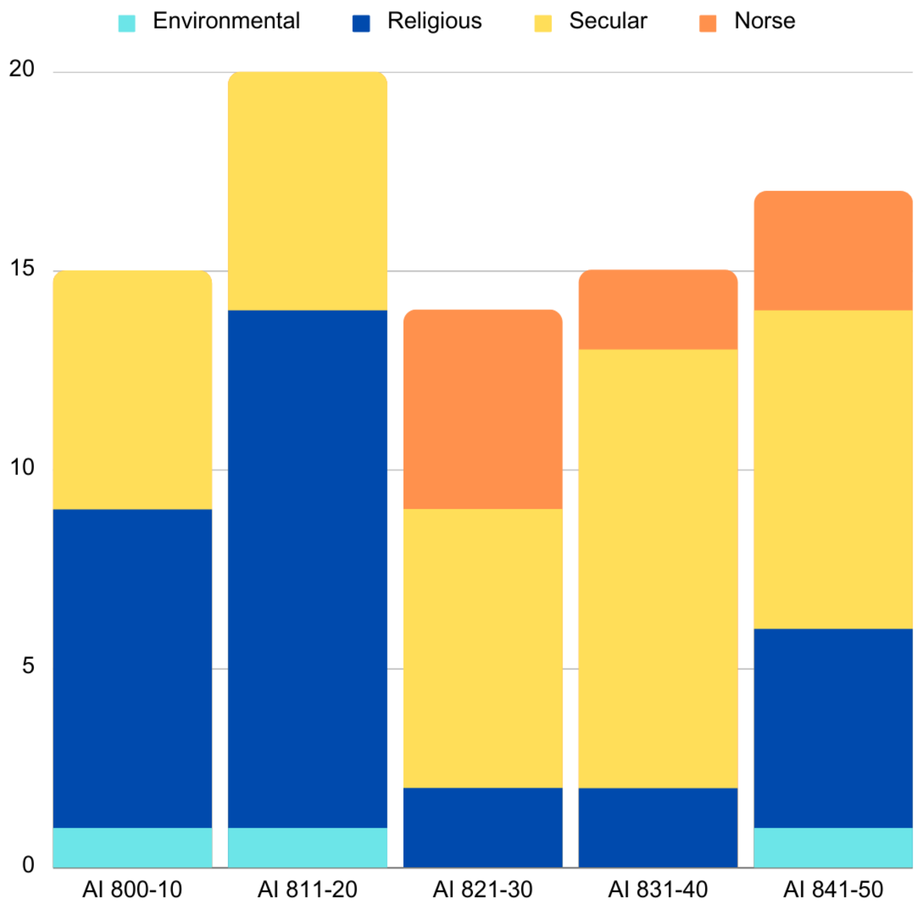

Figure 6: Count of Activity by decade, AI 800-50

Activity	**Count**	**%**
Environmental	3	3.7%
Norse	10	12.35%
Religious	30	37.04%
Secular	38	49.91%
Total	**81**	**100%**

Table 1: Count of Activity total, AI 800-50

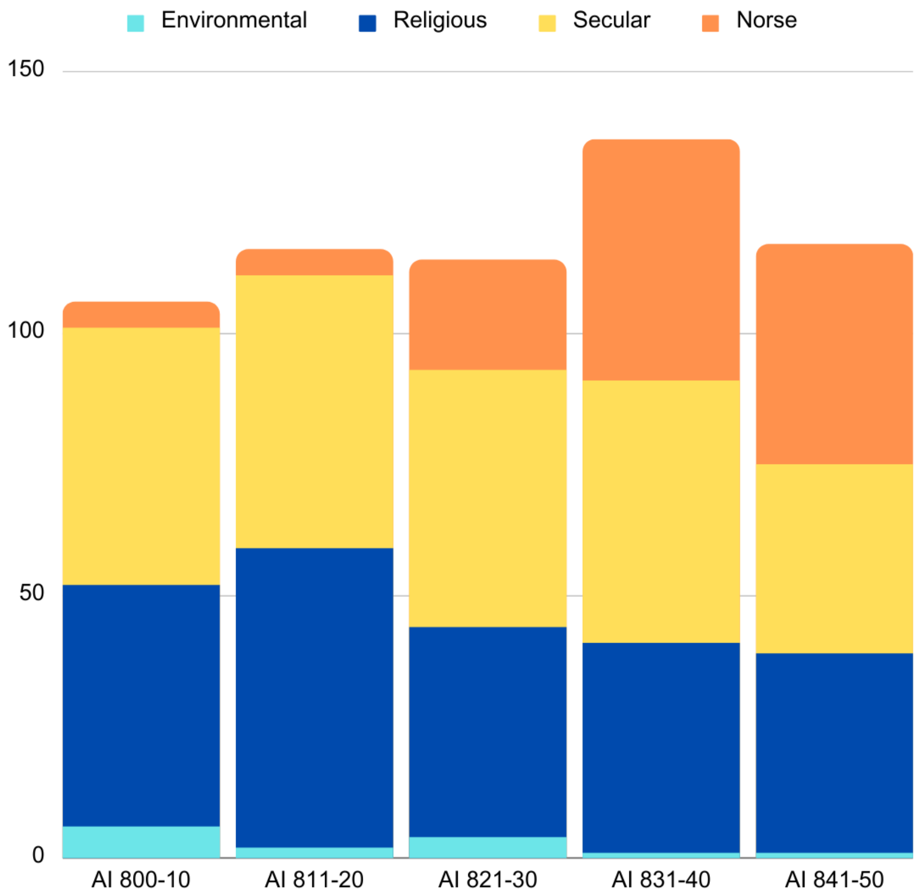

Figure 7: Count of Activity by decade, AU 800-50

Activity	**Count**	**%**
Environmental	14	2.37%
Norse	119	20.17%
Religious	221	37.46%
Secular	38	49.91%
Total	**590**	**100%**

Table 2: Count of Activity total, AU 800-50

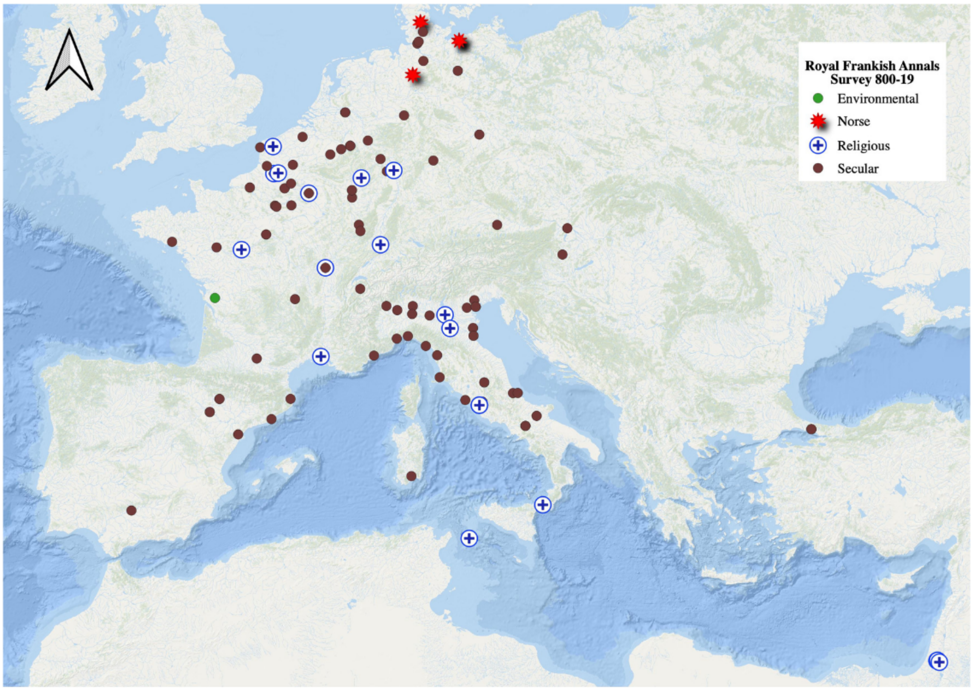
Royal Frankish Annals
Survey 800-19
Environmental
Norse
Religious
Secular

Figure 8: Royal Frankish Annals Survey 800-19

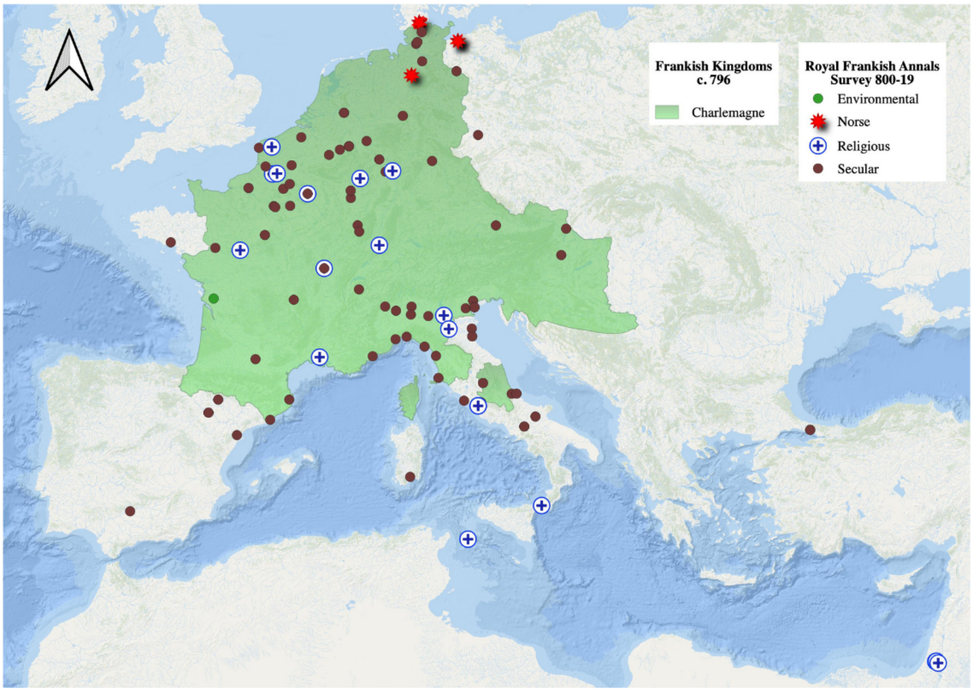
Frankish Kingdoms
c. 796
Charlemagne
Royal Frankish Annals
Survey 800-19
Environmental
Norse
Religious
Secular

Figure 9: Royal Frankish Annals Survey 800-19
with Charlemagne's territories c. 796

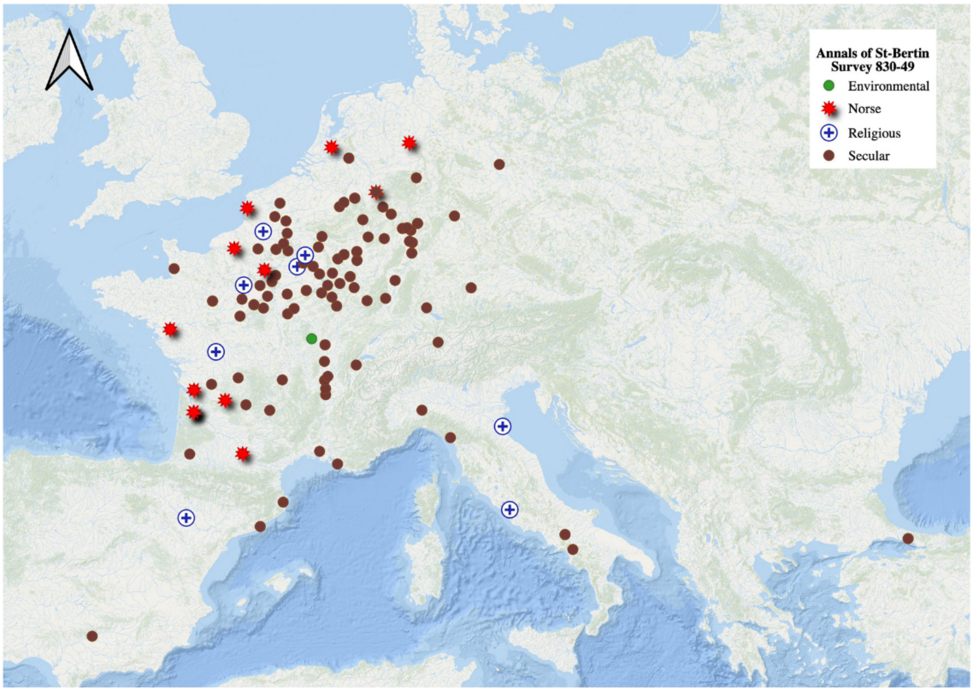
Annals of St-Bertin
Survey 830-49
Environmental
Norse
Religious
Secular

Figure 10: Annals of St-Bertin Survey 830-49

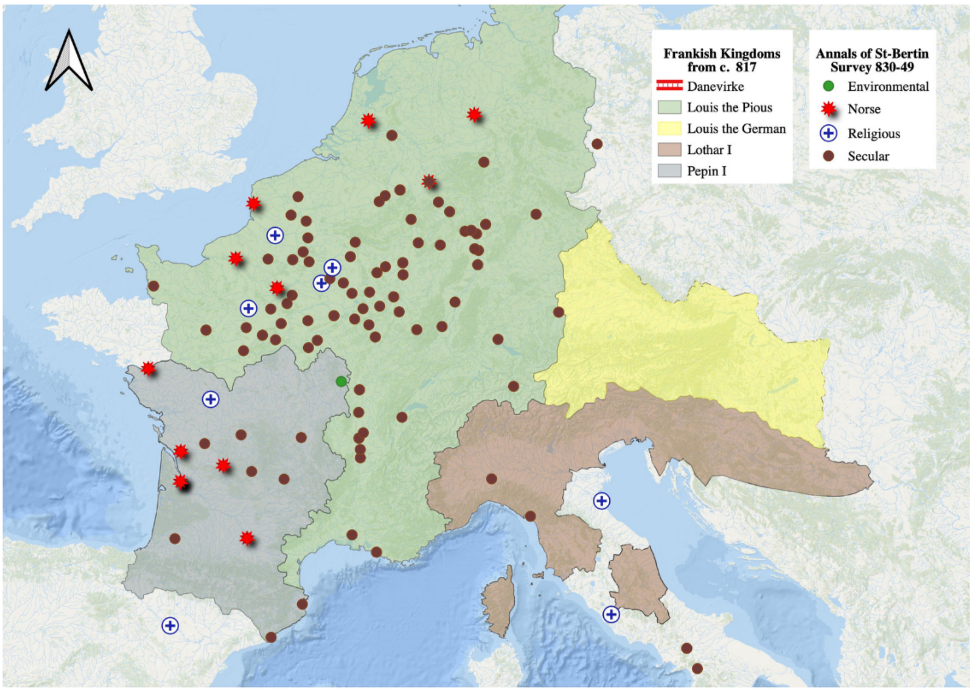
Frankish Kingdoms
from c. 817
Danevirke
Louis the Pious
Louis the German
Lothar I
Pepin I
Annals of St-Bertin
Survey 830-49
Environmental
Norse
Religious
Secular

Figure 11: Annals of St-Bertin Survey 830-49
with Frankish Kingdoms from c. 817

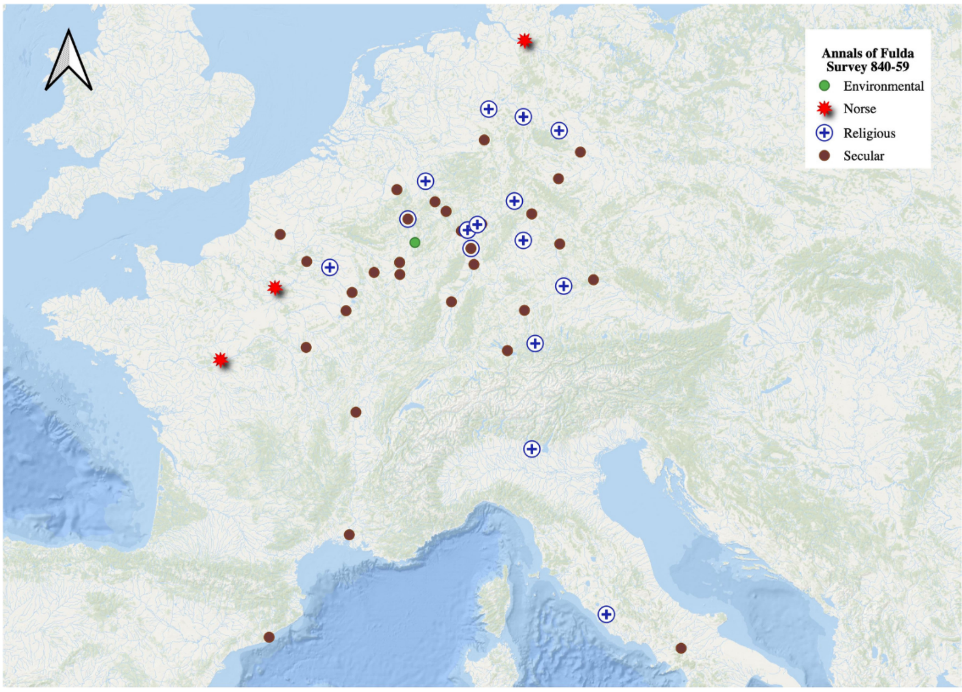
Annals of Fulda
Survey 840-59
Environmental
Norse
Religious
Secular

Figure 12: Annals of Fulda Survey 840-59

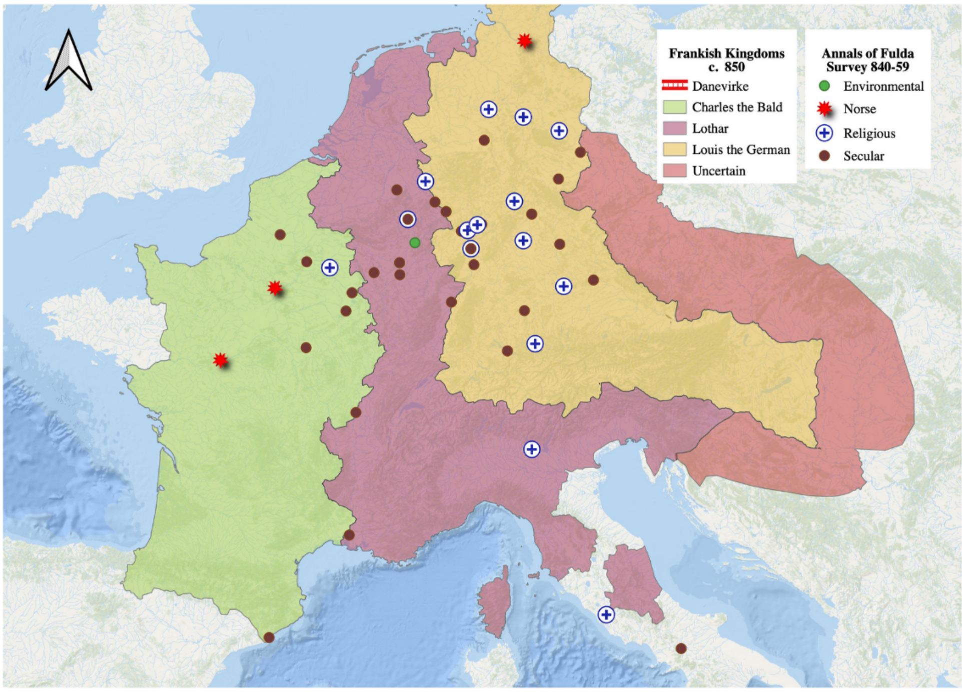
Frankish Kingdoms
c. 850
Danevirke
Charles the Bald
Lothar
Louis the German
Uncertain
Annals of Fulda
Survey 840-59
Environmental
Norse
Religious
Secular

Figure 13: Annals of Fulda Survey 840-59
with Frankish Kingdoms c. 850

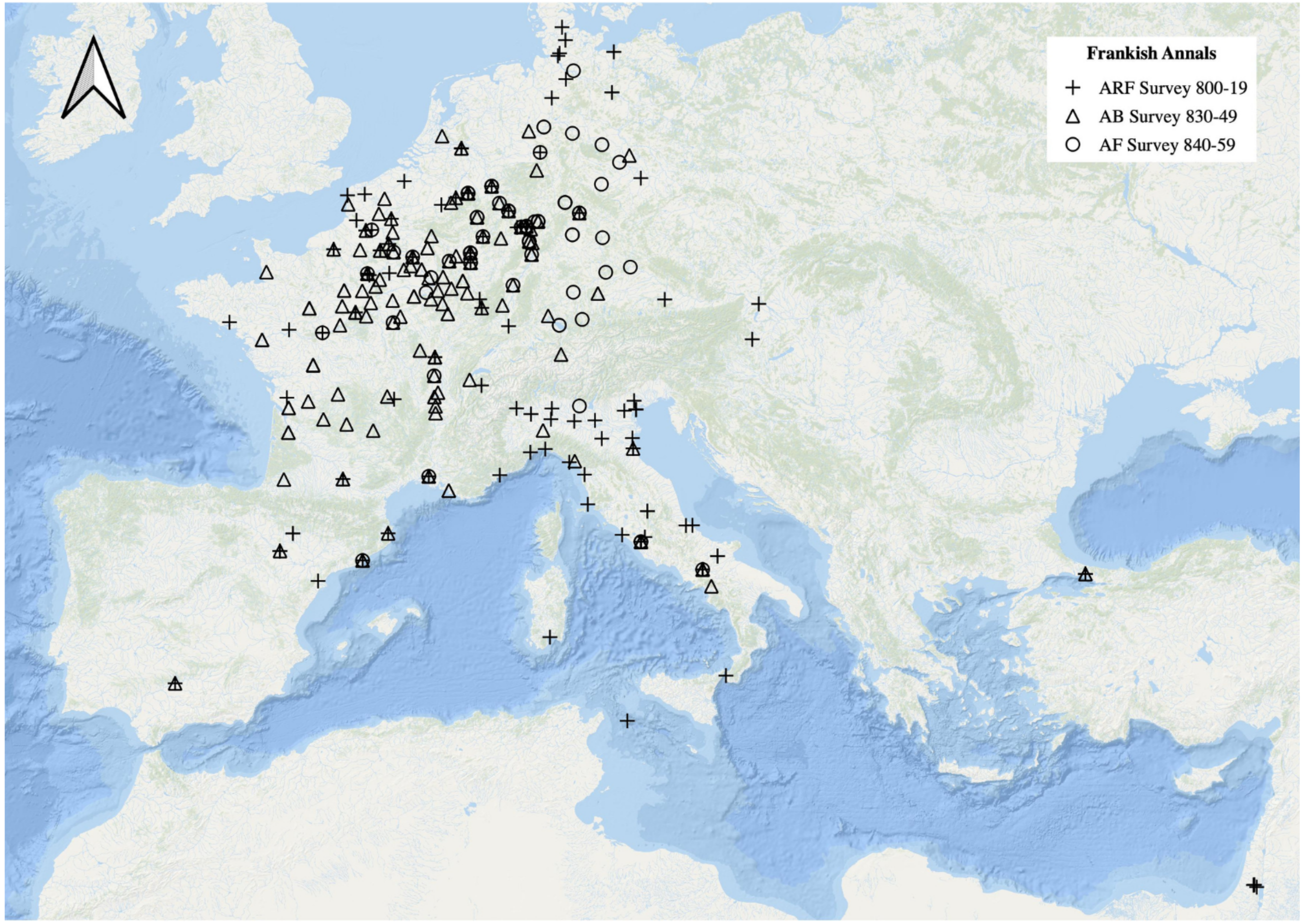
Frankish Annals
+ ARF Survey 800-19
△ AB Survey 830-49
○ AF Survey 840-59

Figure 14: Comparative Survey
Royal Frankish Annals 800-19 vs Annals of St.Bertin 830-49 vs Annals of Fulda 840-59

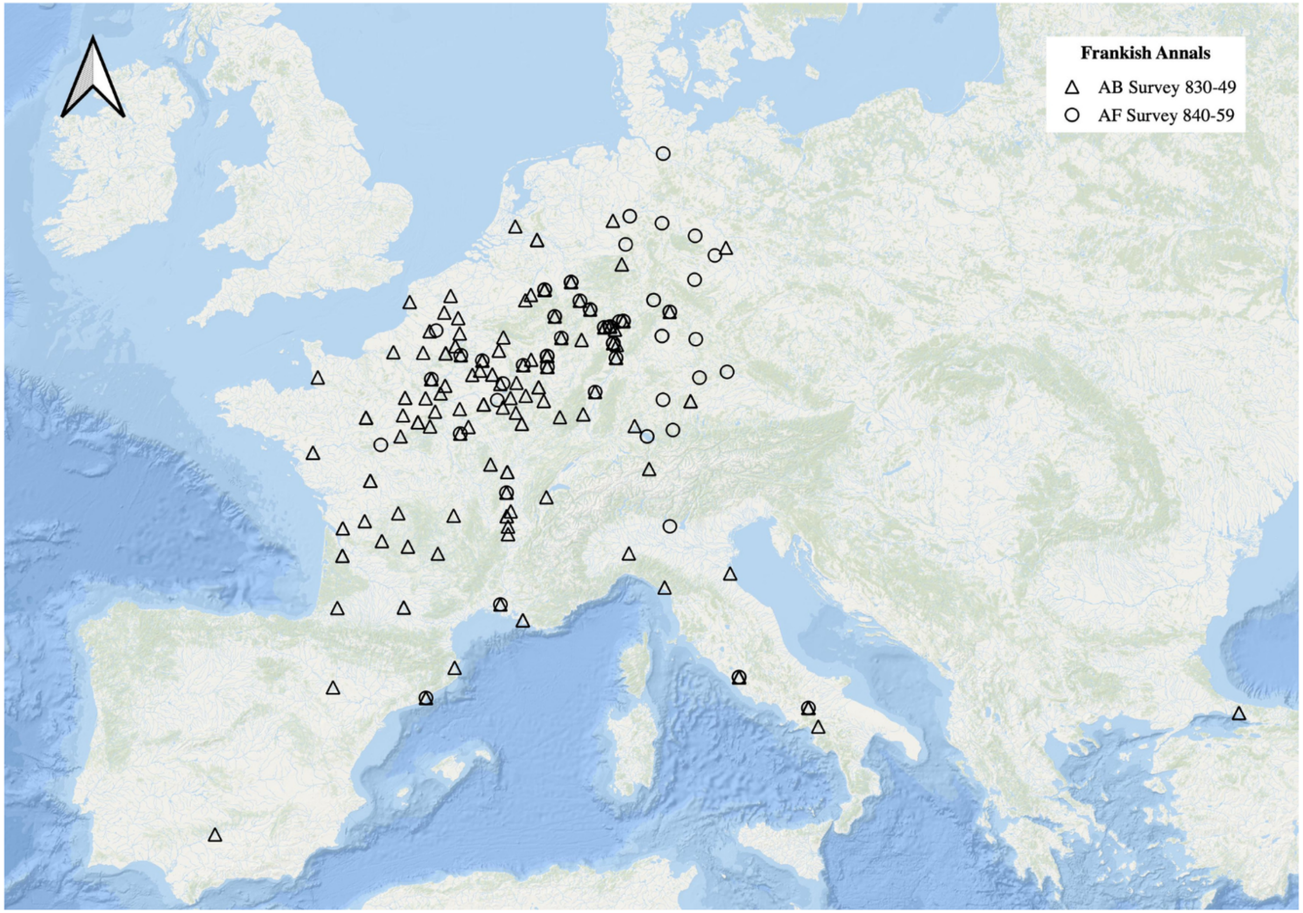
Frankish Annals
△ AB Survey 830-49
○ AF Survey 840-59

Figure 15: Comparative Survey
Annals of St.Bertin 830-49 vs Annals of Fulda 840-59

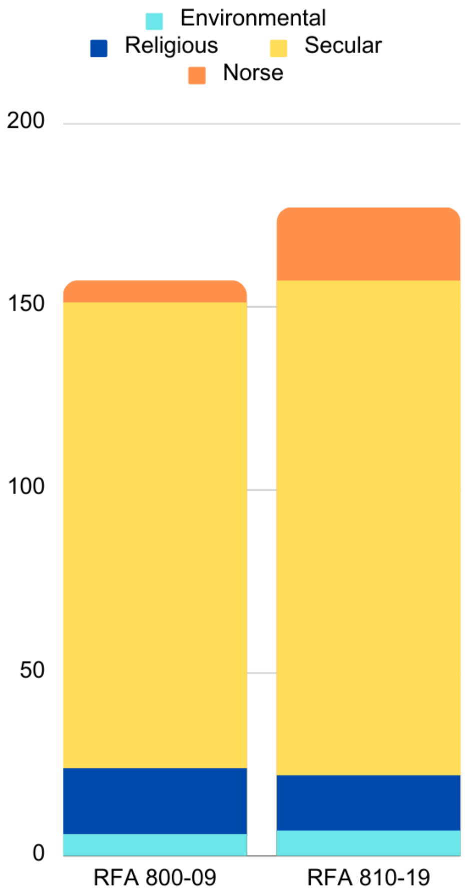

Figure 16: Count of Activity by decade, RFA 800-19

Activity	**Count**	**%**
Environmental	13	3.89%
Norse	26	7.78%
Religious	33	9.88%
Secular	262	78.44%
Total	**334**	**100%**

Table 3: Count of Activity total, RFA 800-19

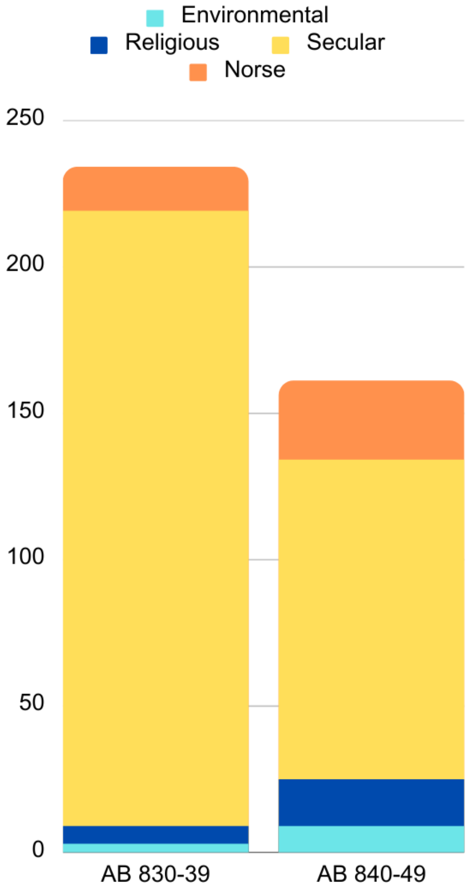

Figure 17: Count of Activity by decade, AB 830-49

Activity	**Count**	**%**
Environmental	12	3.04%
Norse	42	10.63%
Religious	22	5.57%
Secular	319	80.76%
Total	**395**	**100%**

Table 4: Count of Activity total, AB 830-49

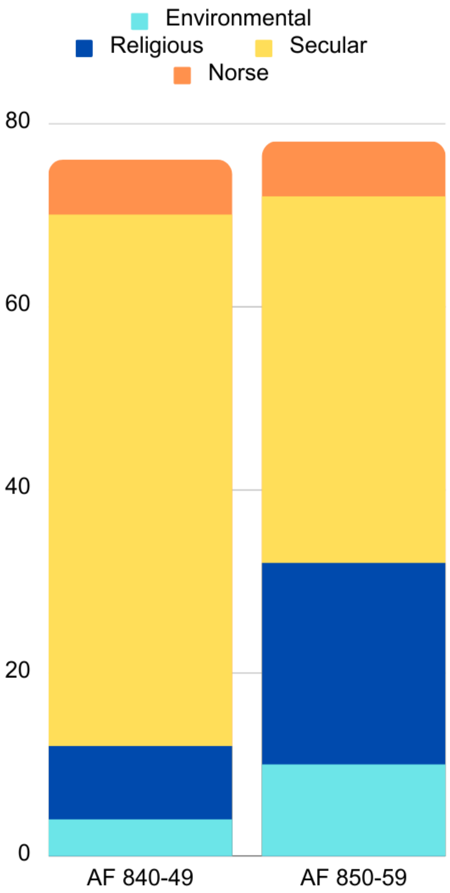

Figure 18: Count of Activity by decade, AF 840-59

Activity	**Count**	**%**
Environmental	14	8.97%
Norse	14	8.97%
Religious	30	19.23%
Secular	98	62.82%
Total	**156**	**100%**

Table 5: Count of Activity total, AF 840-59

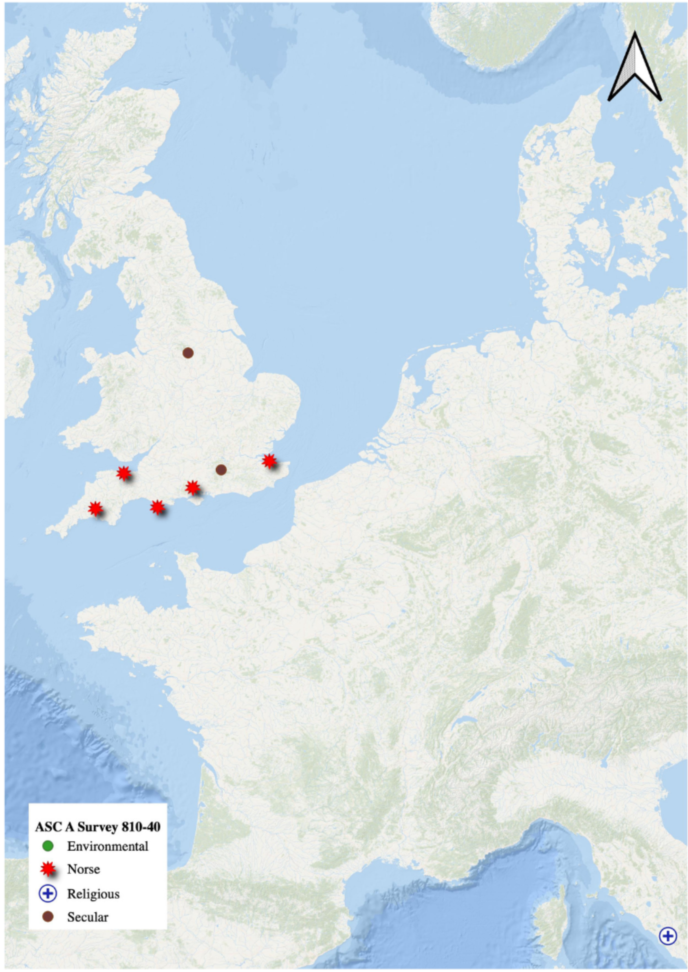
ASC A Survey 810-40
Environmental
Norse
Religious
Secular

Figure 19: Anglo-Saxon Chronicle (A - Winchester) Survey 810-39

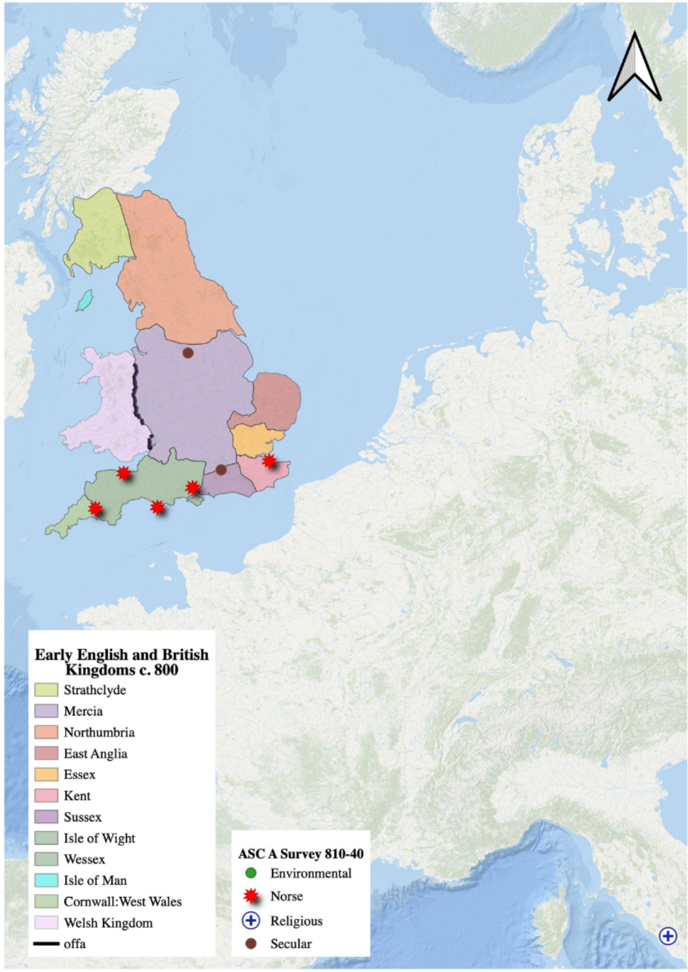
Early English and British Kingdoms c. 800
Strathclyde
Mercia
Northumbria
East Anglia
Essex
Kent
Sussex
Isle of Wight
Wessex
Isle of Man
Cornwall:West Wales
Welsh Kingdom
offa
ASC A Survey 810-40
Environmental
Norse
Religious
Secular

Figure 20: Anglo-Saxon Chronicle (A - Winchester) Survey 810-39 with Early English and British Kingdoms c. 800

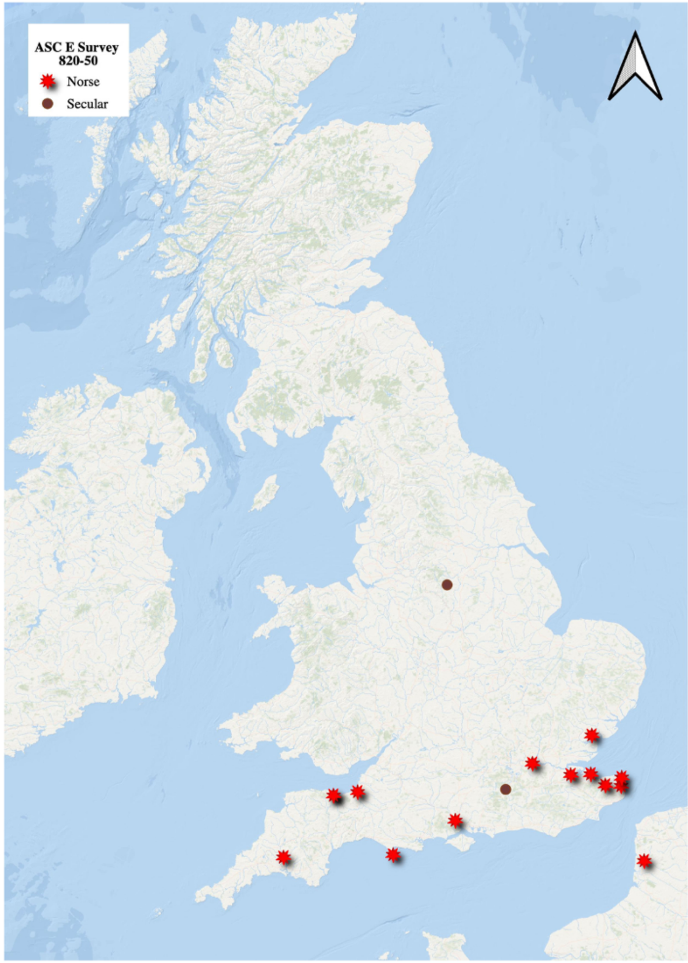
ASC E Survey 820-50
Norse
Secular

Figure 21: Anglo-Saxon Chronicle (E - Peterborough) Survey 820-49

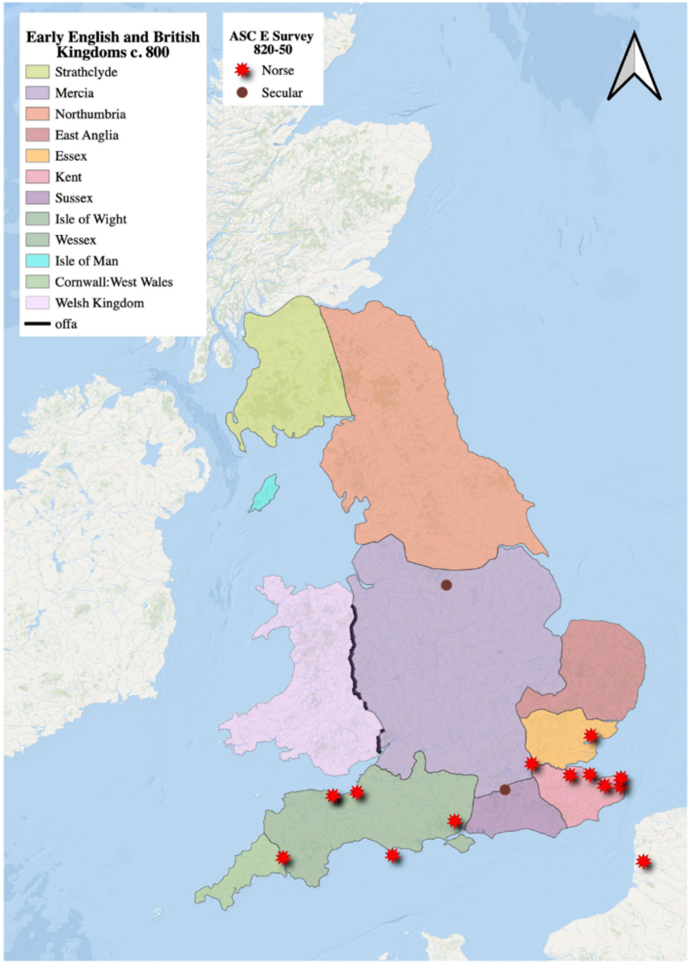
Early English and British Kingdoms c. 800
Strathclyde
Mercia
Northumbria
East Anglia
Essex
Kent
Sussex
Isle of Wight
Wessex
Isle of Man
Cornwall:West Wales
Welsh Kingdom
offa
ASC E Survey 820-50
Norse
Secular

Figure 22: Anglo-Saxon Chronicle (E - Peterborough) Survey 820-49 with Early English and British Kingdoms c. 800

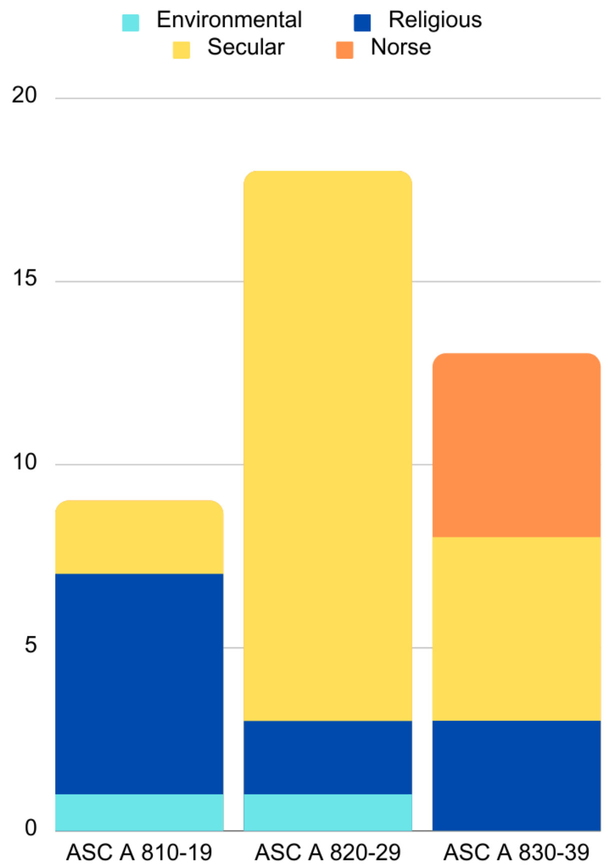

Figure 23: Count of Activity by decade, ASC A 810-39

Activity	**Count**	**%**
Environmental	2	5%
Norse	5	12.5%
Religious	11	27.5%
Secular	22	55%
Total	**40**	**100%**

Table 6: Count of Activity total, ASC A 810-39

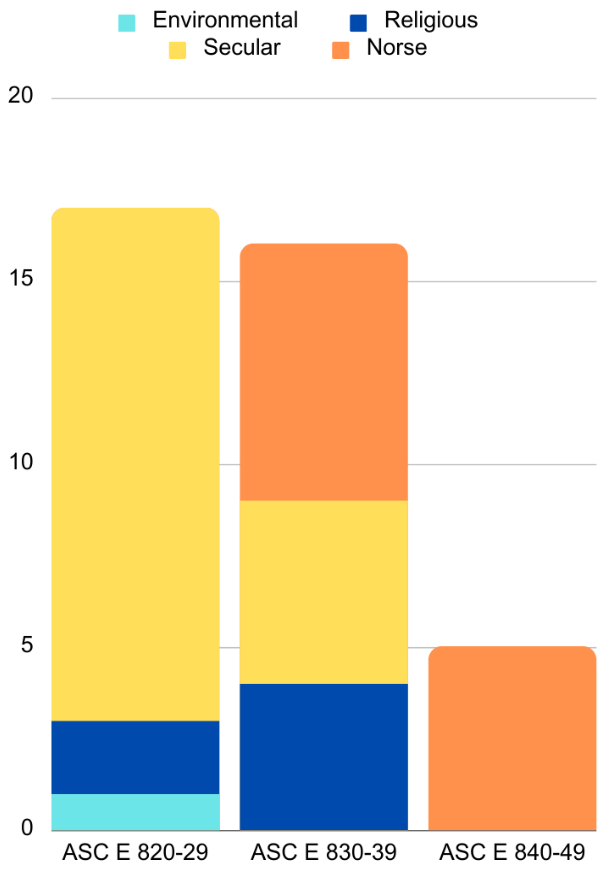

Figure 24: Count of Activity by decade, ASC E 820-49

Activity	**Count**	**%**
Environmental	1	2.63%
Norse	12	31.58%
Religious	6	15.79%
Secular	19	50%
Total	**38**	**100%**

Table 7: Count of Activity total, ASC E 820-49

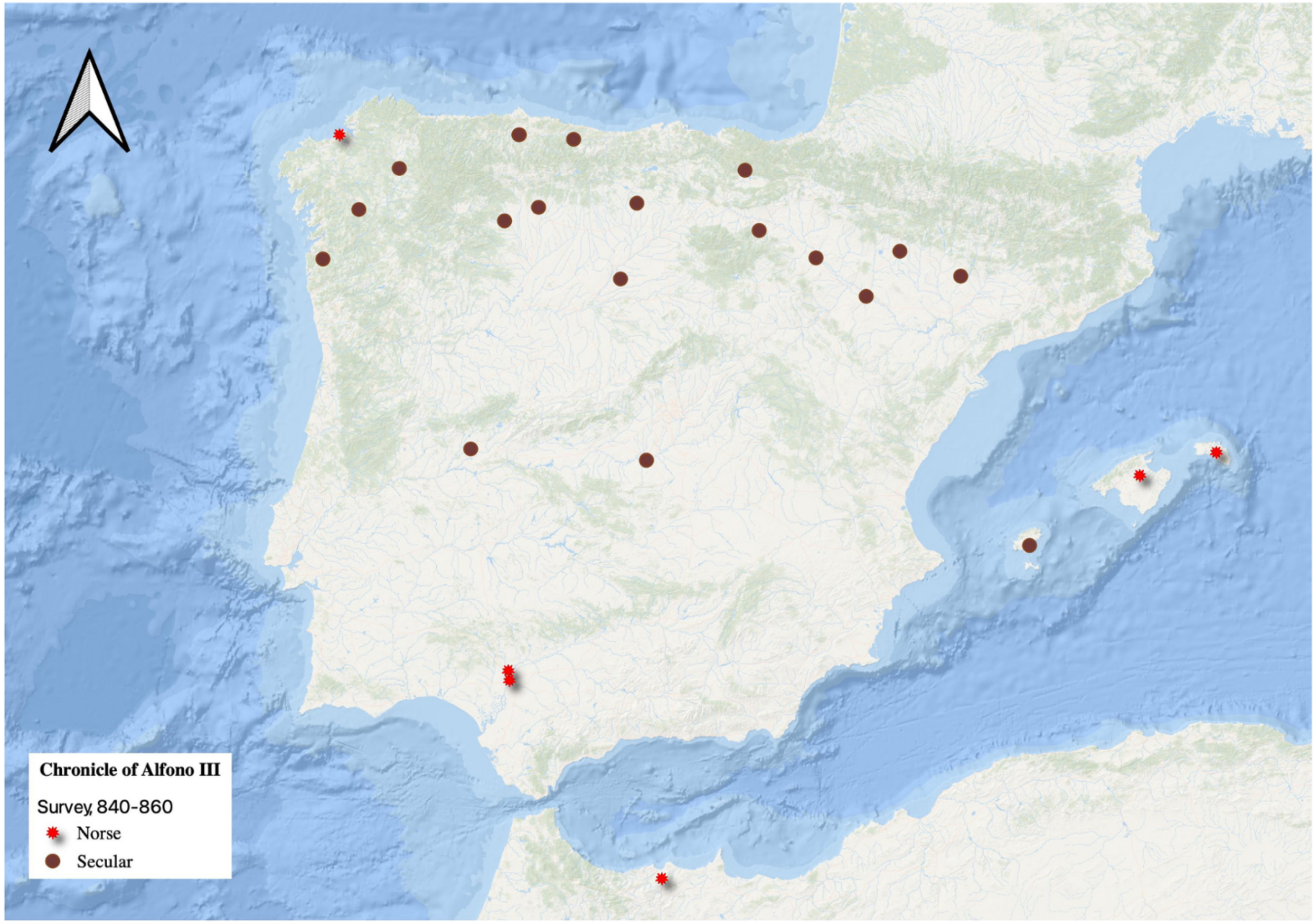
Chronicle of Alfono III
Survey, 840-860
Norse
Secular

Figure 25: Chronicle of Alfonso III Survey 840-60

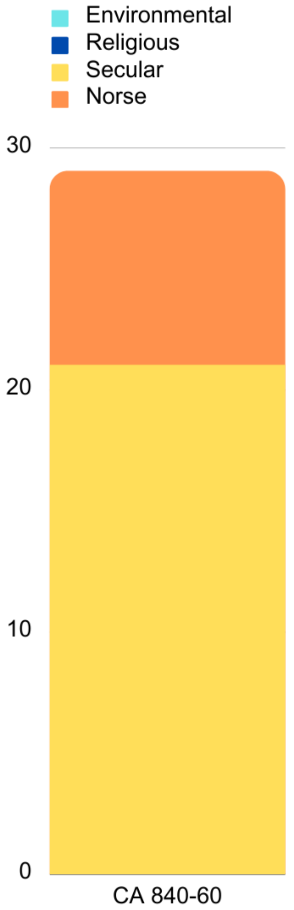

Figure 26: Count of Activity by decade, CA 840-60

Activity	**Count**	**%**
Environmental	0	0%
Norse	8	27.59%
Religious	0	0%
Secular	21	72.41%
Total	**29**	**100%**

Table 8: Count of Activity total, CA 840-60

Chapter 3: Silver Evidence

3.I Introduction

Silver and coin hoards are important sources of archaeological evidence that lend insight into how a society functioned both economically and politically. Jane Kershaw has suggested that the Viking Age can instead be referred to as the 'Age of Silver,' because its distribution is the most extensive archaeological evidence available to link the vast series of Norse trade routes and contact networks across the known world.[226] In the period of the early Viking Age, Atlantic Europe (bar Ireland, Wales, Scotland, and the Isle of Man) generally operated within a coin economy, and an assessment of early medieval mints and silver hoards is fundamental to the reconstruction of the societies that the Norse interacted with. This chapter maps and analyzes the evidence for the silver hoards of Ireland and the mints and silver hoards of Britain, and continental Western Europe, c. 750-950. These layers will be added to the GIS map of textual Norse activity in order to contextualize Norse behavior in the context of a silver economy.

The examination of silver and silver coins will begin with an overview of the silver mines, from which Atlantic Europe was able to produce its coins. Unfortunately, while silver fingerprinting to trace the origin of the ore is available using trace element and lead isotope analysis, it is not currently in common enough use to contribute to a thorough study of early medieval Atlantic European silver origins.

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[226] Jane Kershaw, "Viking-Age silver in North-West England: hoards and single finds," in *In Search of Vikings: Interdisciplinary Approaches to the Scandinavian Heritage of North West England*, ed. David Griffiths, S. Harding, and L. Royles (Boca Raton, FL: CRC Press, 2014).

Instead, the mines of the Near and Middle East and Central Asia will be reviewed and other possibilities in Ireland, Britain, and the Continent will be discussed. A catalogue of Atlantic European mints will then be mapped, inclusive of the early English kingdoms, the Carolingian kingdoms, and the early Danish kingdom; mints, and the accompanying coin economies, did not exist for Ireland, Wales, Scotland, and Europe east of the Rhine for another few centuries. Following the analysis of mines and mints, the silver and coin hoard evidence will then be considered. Single-finds would present a more thorough investigation of economic distribution patterns, but the finds themselves are too numerous for a full analysis of the evidence. On the other hand, while hoards represent a different view of economic activity, they are more easily identifiable, and their value will be discussed in more detail below.

While the period of study for this project is defined by the events outlined in the annalistic sources, namely c. 777-920, the dating for archaeological material will be expanded to c. 750-950. This allows for the analysis of material that cannot be dated exactly, and it permits the use of hoards and silver objects that fall either before or after the defined textual period. The layers will be examined both individually and layered together in order to form inferences about the nature of Norse activity using silver distribution patterns. Specific regions will be broken down chronologically, though conclusions will also be reached based on the two-hundred year picture as a whole. The purpose of this chapter is to understand where the silver of early medieval Europe came from and how its economy changed over the course of the early Viking Age, specifically in relation to Norse activity and contact.

3.II Silver Mines

In this section, the origin of the silver used for the production of Atlantic European coinage, as well as those coins found in Scandinavia during the early Viking Age, will be examined. There is a general assumption among scholars that the number of coins minted by the Frankish and Early English kingdoms c. 750-950 could not be sustained by silver mining production from within Atlantic Europe. As such, it is proposed that significant amounts of silver were imported from the east, either in the form of ore, ingots, or eastern coinage.

3.II.1 The Frankish Kingdoms

Between c. 670-675, the Merovingian rulers of Frankia introduced the silver *denarius*, or denier, which eventually shifted the Merovingian monometallic system of coinage from gold to silver.[227] While scholars have traditionally focused on the breakdown of the Byzantine gold mines that supplied the Merovingian mints, there has been little investigation into the sudden source of silver that must have been made available for the minting of these silver deniers. A rapid shift from gold to silver would have signaled that either the gold was no longer available or that silver was abruptly made available in significant quantities – possibly, both. By 794, Charlemagne had introduced a single denomination monetary system, completely doing away with gold and basing the coinage exclusively on silver. This silver monometallic coinage required significant amounts of silver in order to regulate this new monetary system that relied so heavily upon access to silver.[228]

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[227] Alessia Rovelli, "From the Fall of Rome to Charlemagne (c.400–800)," in *Money and Coinage in the Middle Ages*, ed. Rory Naismith (Leiden: Brill, 2018), 79-80.

An attempt to catalogue and map the silver mines revealed that only a single mine appears to have been exploited for ore in Atlantic Europe at the time: Melle. The archaeological and numismatic evidence from Melle (in Aquitaine, France) produced a significant amount of silver, though even at its peak in the eighth and ninth centuries, estimates for the amount of silver coin circulating on the continent suggest that the production was insufficient to fulfil the needs of all the Carolingian mints.[229] Guillaume Sarah has identified silver sources other than the mines of Melle by using trace element and lead isotope analysis. These sources produced the silver used to mint coins in Toulouse, both during the reign of Charlemagne (793-812) and in the 840s. Unfortunately, the specific source regions of these Toulouse-minted silver coins have yet to be identified, and ultimately this does not definitively indicate that the silver originated from within Frankish boundaries.[230] As such, it is likely that the majority of silver was imported through the Frankish ports along both the Mediterranean and the Atlantic coasts.[231]

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[228] Andrew Woods, "From Charlemagne to the Commercial Revolution," in *Money and Coinage in the Middle Ages*, ed. Rory Naismith, Reading Medieval Sources (Leiden: Brill, 2018), 94.

[229] Guillaume Sarah, "From Local Supply to Long-Distance Trade Networks: Fingerprinting Early Medieval Silver," in *Silver, Butter, Cloth: Monetary and Social Economies in the Viking Age*, ed. Jane Kershaw and Søren Sindbæk, Medieval History and Archaeology (Oxford: Oxford Unviersity Press, 2019), 196.; Téreygeol, "La quantification de la production argentifère: Melle, un cas d’école?" (Mine, métal, monnaie, Melle-Les voies de la quantification de l'histoire monétaire du haut Moyen Age, Droz, 2017).

[230] Sarah, "From Local Supply to Long-Distance Trade Networks," 202.; Trace element and lead isotope analysis allows for scientists to locate the geological origin of medieval silver coins. The geochemical process cannot be used alone, as Sarah states that, “elemental and isotopic analysis of archaeological silver must be performed in intense collaboration between specialists of material sciences, numismatics, mining archaeologists, and historians in order to define a question to answer, a corpus of coins to select, and possible sources of metal for the silver of the coins or objects.”

3.II.2 Britain and Ireland

Silver extraction from British-mined lead has been attested since the Roman occupation, and Bede listed silver as a source of mineral wealth during the eighth century. There are several potential sites for early medieval silver mining in Derbyshire, Cumberland, Somerset, and North Wales, though none of these sites have been conclusively proven to have supported significant mining ventures during the early Viking Age.[232] Instead, it is likely that silver entered Britain from Frankia in the form of Frankish coins through the southern trading ports – namely Canterbury, Rochester, London, and other coastal sites in the kingdoms of Wessex, Sussex, Kent, Essex, and East Anglia. Known mints from these urban sites lend credence to this hypothesis that Frankish coins were then melted down and recycled into Early English coinage and will be discussed in further detail below.

Ireland, similarly, did not produce its own silver to any noteworthy degree, though native ores may have been exploited on a small-scale; these sources have not been identified, should they exist.[233] Nancy Edwards suggests that the silver in

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[231] Simon Coupland, "Medieval and Modern Hoards: Four *Christiana Religio* Hoards of Louis the Pious (814-40)," *The Numismatic Chronicle* 173, Offprint (2013): 354.; G. Sarah et al., "Analyses élémentaires de monnaies de Charlemagne et Louis le Pieux du Cabinet des Médailles: l'Italie carolingienne et Venise," *RN* 164 (2008).

[232] Peter Claughton, "Silver sources in the late 10th century" (Vikings '97, Tavistock, Publicatin Pending, 1997).; Rory Naismith, *Money and Power in Anglo-Saxon England: The Southern English Kingdoms 757-865*, Cambridge Studies in Medieval Life and Thought, (Cambridge: Cambridge University Press, 2012), 158-9.

[233] Thomas R Kerr, Finbar McCormick, and Aidan O'Sullivan, *The Economy of Early Medieval Ireland* (2013), 28.

Ireland was imported from Britain and the Continent, and that the majority of silver-working used recycled silver. [234] Furthermore, silver only became plentiful in Ireland following Norse settlement in the mid-ninth century, and distribution patterns reveal that silver likely entered Ireland from the Norse urban ports of Dublin, Waterford, and Limerick; this too will be discussed in further detail below.

3.II.3 Spain

The evidence from silver mining in Spain is inconclusive. While metal from the Iberian Peninsula may have fueled Roman expansion by contributing to financial growth following the end of the Second Punic War (4th-2nd century BCE), there appears to have been a decline in mining production in the later years of the Western Roman Empire. [235] There is little to indicate that silver mining continued in the early medieval period, especially under Islamic rule in Spain.[236]

3.II.4 The East

While large-scale silver mines in Europe, exclusive of Melle, have not been successfully identified, there is significant evidence that suggests mines from Northern Africa, the Near and Middle East, Central Asia, and Armenia supplied silver to the Islamic world. Bagdad, al-Kufa, and al-Basra, in turn, minted the majority of Islamic coins, or *dirhams*, for this period.[237]

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[234] Nancy Edwards, *The Archaeology of Early Medieval Ireland* (London and New York: Routledge, 1990), 92.

[235] K. J. Westner et al., "ROME'S Rise to Power. Geochemical Analysis of Silver Coinage from the Western Mediterranean (Fourth to Second Centuries BCE)," *Archaeometry* 62, no. 3 (2020): 12-13, https://doi.org/10.1111/arcm.12547.; J. C. Edmondson, "Mining in the Later Roman Empire and beynd: Continuity or Disruption?," *The Journal of Roman Studies* 79 (1989).

[236] Edmondson, "Mining in the Later Roman Empire and beynd: Continuity or Disruption?."

In 761, the Abbasid dynasty took power, and they moved their capital to Baghdad a year later. The al-Jabalī mines of Yemen were one of the most important sources of silver mineral wealth for the caliphate; they were mentioned by the tenth century Yemeni scholar al-Hamdānī, and in 2006 Audrey Peli and Florian Téreygeol undertook an archaeological survey that confirmed their significance.[238] New silver mines in Khorasan and Transoxiana opened in 892/3, providing ore for the mints of Samarkand, Al-Shash (Taskent), and Andarabah. Find patterns suggest that Islamic silver coins made their way to Scandinavia first through the Southern Caucasus, and then up through Eastern Europe, before reaching the Baltic and North Seas.[239] The import began on a small-scale around the year 800, and nearly all coins found in Sweden from c. 800-975 trace their origin to the east.[240] The inflow of Islamic silver peaked in the 950s and then dramatically declined in the 970s.[241]

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[237] Maya Shatzmiller, "The role of Money in the Economic Growth of the Early Islamic Period (650-1000)" (paper presented at the Sources and Approaches across Disciplines in Near Eastern Studies - Proceedings of the 24th Congress, Union Européene des Arabisants et Islamisants, Leipzig, 2008), 280-81.

[238] Audrey Peli and Florian Téreygeol, "Al-Raḍrāḍ (al-Jabalī): a Yemeni silver mine, first results of the French mission (2006)," *Proceedings of the Seminar for Arabian Studies* 37 (2007), www.jstor.org/stable/41224066.

[239] Christoph Kilger, "Kaupang from Afar: Aspects of the Interpretation of Dirham Finds in Northern and Eastern Europe between the Late 8th and Early 10th centuries," in *Means of Exchange: Dealing with Silver in the Viking Age* ed. Dagfinn Skre, Kaupang Excavation Project Publication Series (Aarhus: Aarhus University Press, 2007), 199.

[240] Eeva Jonsson, "Metal analyses of Viking-Age coins," *Metallanalyser av mynt/Metal analyses of coins* 1 (2018): 3.; Jane Kershaw et al., "The scale of dirham imports to the Baltic in the ninth century: new evidence from archaeometric analyses of early Viking-Age silver," *Fornvännen* 116, no. 3 (2021).

[241] Tom Horne, "The Most Praiseworthy Journey: Scandinavian market networks in the Viking Age" (Doctoral University of Glasgow, 2014), 79.

Maps of the above Islamic silver mines have not been included, as the geography of the three mines mentioned above seems to have little consequence on European silver importation. There has been no suggestion by previous historians or archaeologists that raw silver ore was imported into Europe from the Middle East; instead it is much more likely that silver reached European shores in the form of previously minted Islamic coinage.

3.II.5 Conclusion

The proposed hypothesis that the majority of silver present in Atlantic Europe during the Viking Age was imported from outside of Western Europe hinges on a lack of evidence that would support local origins. It is currently impossible to prove that silver mines were exploited on a large-scale in Atlantic Europe, including Ireland, Britain, and the Iberian Peninsula; within the area of study, isotopic analysis has only uncovered evidence of mass production in Melle. This suggests that the Frankish and Early English kingdoms developed their coin economy using eastern Islamic silver. Whether eastern silver arrived as ore, ingots or Islamic coins that were then melted down and recycled into Frankish and English coins remains unknown. Until such time as can be proven otherwise, the evidence currently suggests that silver entered Frankia and Early England through means of foreign trade.

3.III Atlantic European Mints

The extent to which various states within Atlantic Europe operated within a coin economy during the ninth century is still under debate. Simon Coupland suggests that within the Frankish kingdoms, coins were, “undoubtedly available to the whole population, but to a widely differing extent."[242] Louis the Pious increased the number of *oboles* (small half-deniers) struck during his reign, which may have indicated, "an increasing demand for smaller denomination coinage, as people used coins for transactions involving smaller sums."[243] Andrew Woods further asserts that, "coinage could be used in different ways by different people and differing amounts."[244] For example, it is unlikely that coins were used for elite transactions, such as for the purchasing of land. Land grants were most likely used as a form of gift exchange between rulers and their *generales*. Coins, therefore, appear to have been the common currency for those of a lower-status, who used coinage within a barter/trade system. This is to say, while coins were prominent in the Frankish and Early English economies upon the advent of the Viking Age at the end of the eighth century, they did not signify the only means of exchange amongst either the elite or the common populations of Atlantic Europe. Rulers regulated coins during periods of strength, but even then, it is unlikely that coinage served as the only form of payment.

This section surveys and maps the mints of Atlantic Europe over a two-hundred-year period, c. 750-950. The location of mints fluctuated, some springing up late in the record, while some disappeared under one ruler only to return a generation later. Surveys conducted by previous scholars were scraped for information and compiled into a new database, which has been organized thus: 'country,' which indicates the modern nation the mints currently correspond with; 'location';

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[242] Simon Coupland, *The Use of Coin in the Carolingian Empire in the Ninth Century* (Ashgate Publishing Ltd., 2014), 261.
[243] Simon Coupland, "Money and Coinage under Louis the Pious," *Francia* 17 (1990): 26.
[244] Woods, "From Charlemagne to the Commercial Revolution," 114.

'latitude'; 'longitude'; 'years active,' which corresponds to the ruling years of a monarch who minted coins as that location; 'kingdom'; and 'source'. The Carolingian mints were scraped from a survey conducted by Peter Spufford in his 1988 monograph, *Money and its Use in Medieval Europe*.[245] The data regarding the early English mints was compiled using a 1974 study by C.E. Blunt, who more specifically was interested in the expansion of mints under the rule of Æthelstan, c. 924-939.[246] Mints prior to the rule of Æthelstan have been compiled from other sources.[247]

The purpose of this section is to analyze the number and location of mints chronologically. How did distribution patterns change from one ruler to the next, and how would the change in distribution affect the economy of the various kingdoms studied?

3.III.1 Carolingian Mints

In 794, Charlemagne shifted the Frankish economy to a single denomination monometallic coin economy, which thereafter operated on the basis of pennies, *solidus* (12 pennies), and pounds (240 pennies). During Charlemagne's reign, 768-814, he oversaw roughly forty mints that enabled him to ensure that enough coinage was in circulation to satisfy the population of his territories (Figures 27 &

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[245] Peter Spufford, *Money and its Use in Medieval Europe* (Cambridge: Cambridge University Press, 1988), 55-56.

[246] C.E. Blunt, "The Coinage of Athelstan, 924-939: A Survey," *British Numismatic Journal* XLII (1974).

[247] Philip Grierson and Mark Blackburn, *Medieval European Coinage with a Catalogue of the Coins in the Fitzwilliam Museum, Cambridge: The Early Middle Ages (5th-10th centuries)*, Medieval European Coinage, (Cambridge: Cambridge University Press, 1986), 272.; Rory Naismith, *Medieval European Coinage with a Catalogue of the Coins in the Fitzwilliam Museum, Cambridge: Britain and Ireland c. 400-1066*, vol. 8, Medieval European Coinage, (Cambridge: Cambridge University Press, 2017).

28).[248] Under Louis the Pious (Figures 29 & 30), who ruled from 812-840, three re-coinages were issued, and as such his coinage was "characterized by uniformity and strength of control,"[249] The first reissue took place in 814 after the death of Charlemagne, at which time Louis issued a portrait coinage from 814-818. Twelve mints are known to have produced these coins: Dorestad and Quentovic are marked with a symbol of a ship; the silver mine at Melle bears a pair of coin dies and hammers; the towns of Arles, Orléans, Pavia, Sens, Strasbourg, Toulouse, Tours, and Treviso are all stamped with a town gate; and Milan is represented by a stylized temple.[250] In 818, Louis increased the weight of the denier to 1.8g, and signaled a significant strengthening of the coinage, which can only indicate an increased access to silver itself. The increased weight was short lived. In 822-23, Louis issued his third and final re-coinage, dropping the weight of the denier back to 1.7g, at which point past issues were demonetized and removed from circulation.[251] It should also be noted that in 817, the mint at Regensburg was opened; this is the same year Louis the Pious designated the eastern German kingdom to his son Louis. The opening of Regensburg may have indicated that Louis the Pious and his son were attempting to more readily circulate coinage east of the Rhine, though its outputs appear to have been humble, and the mint may be been more symbolic than practical.[252]

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[248] Adrian Verhulst, *The Carolingian Economy*, Cambridge Medieval Textbooks, (Cambridge: Cambridge University Press, 2002), 117.
[249] Verhulst, *The Carolingian Economy*, 119.; Coupland, "Money and Coinage under Louis the Pious."
[250] Coupland, "Money and Coinage under Louis the Pious," 25.
[251] Verhulst, *The Carolingian Economy*, 119.
[252] *Ibid.*

A significant shift in spatial distribution took place during the reign of Charles the Bald, 840-64 (Figures 31 & 32). During this period, mints generally disappeared from the Gallic Coast, though inland centers remained active. While this may have been the result of Norse raids along the coast, Quentovic and Dorestad maintained their operations. Keeping these port-city mints active may have been a necessary risk into order to keep trade open across the Channel with England and the rest of Britain. It would have been necessary to remint any early English coinage that arrived at these ports for Frankish exchange, and similarly Frankish coin would have been expected in exchange for trade goods that came through the ports. Operating mints on-site was necessary to maintain trade links between the Early English and Frankish kingdoms. That being said, the removal of the majority of mints along the coasts speaks to Charles the Bald's political and economic deftness, for he ensured that the currency remained firmly in royal control by keeping the mints out of the reach of attack. Following the political fragmentation of 843, however, the kings of the divided Frankish kingdoms saw a loss of control of the coinage, and deniers in Charles the Bald's early rule contained only 50% silver. Reform in 864 re-standardised the coinage, and Charles the Bald's new deniers shot up to 96% silver. Shortly thereafter, the coinage was once again debased, most likely following a new shortage of silver, and several mints ceased striking coins for nearly a century.[253] Figure 32 reveals that the majority of mint activities were contained in the western kingdom of Charles the Bald, with some activity in Lothar I's middle kingdom, and almost no activity in Louis the German's eastern kingdom.

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[253] Verhulst, *The Carolingian Economy*, 119.; Simon Coupland, "The Early Coinage of Charles the Bald," *Numismatic Chronicle* 141 (1991).; D. M. Metcalf, "A Sketch of the Currency in the Time of Charles the Bald," in *Charles the Bald. Court and Kingdom*, ed. M. T. Gibson and Janet L. Nelson (Aldershot: Variorum, 1990).

Following the death of Charles the Bald, the coinage can be distinctly separated between the Western and Eastern Frankish kingdoms. From c. 877-897, the Western Frankish coinage is minted almost entirely in the monogram/cross types, without the benefit of bust, mint-signature-in-field, or temple types that allow for differentiation between Louis the Stammerer (877-79) and Louis III (879-92).[254] Odo (887-97), struck his coinage at nearly thirty mints, which is considerably more than his predecessors between c. 877-887, though this may have been the result of his longer rule.[255] Unfortunately, a survey of these mints is not available. From c. 897-987, it becomes difficult to date and attribute the coinage, although coins are attributable to all kings of Western Frankia at this time (except one), as well as one queen.[256] Several feudal lords had also begun to mint their own coins, including William Longsword of Normandy, c. 930-43, who was the son of Rollo, the Norseman granted lands by Charles the Simple in 911. The kings of the Eastern Franks do not seem to have minted their own coinage, and it is unlikely that the peoples there used coinage in their transactions.

3.III.2 Early English Mints

Up until c. 880, English coinage was "difficult to interpret and arrange, for political control of the few mints change frequently and few coins are mint-signed."[257]

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[254] Grierson and Blackburn, *Medieval European Coinage: The Early Middle Ages*, 241-42.
[255] Grierson and Blackburn, *Medieval European Coinage: The Early Middle Ages*, 243.
[256] Grierson and Blackburn, *Medieval European Coinage: The Early Middle Ages*, 246.
[257] Grierson and Blackburn, *Medieval European Coinage: The Early Middle Ages*, 284.

Therefore, in comparison to Carolingian mints, mapping the mints of the early English kingdoms is a somewhat simpler process, which is the result of a less sophisticated coin-economy. Mint-signing was rare between c. 760-880, and it appears that during this 120-year stretch, there were only five mint locations south of the Humber River: Canterbury, London, and Rochester, as well mints in the kingdoms of East Anglia and Wessex, which have been attributed to Ipswich and Southampton respectively.[258] Alfred mint-signed his coins at the end of his reign, with locations at Exeter, Gloucester, Oxford and Winchester; Edward the Elder mint-signed a coinage at Bath, and the Norse minted coinage at York and Lincoln.[259] In the tenth-century, even as the number of mints increased, the mints continued to be concentrated around the ports of southern and eastern England.[260] Distribution patterns suggest that the coinage of the southern kingdoms circulated freely, and that royal authorities appear to have been able to exclude the use of Continental coin in local transactions from the end of the eighth century.[261] The coinage of Northumbria did not use a mint signature during this time, though two closely related coin series – one minted by the king and one by the archbishop – can only have been have been issued through York. It is highly unlikely York was the only mint-location in all of Northumbria, though, and Rory Naismith suggests that a single York mint for the entire kingdom would be “the most extreme case.”[262] That being said, no other Northumbrian mint has been successfully identified.

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[258] Rory Naismith, *Anglo-Saxon Coins II: Southern English Coinage from Offa to Alfred c. 760-880*, British Museum: Sylloge of Coins of the British Isles, (London: British Museum Press, 2016), 61-62.

[259] Grierson and Blackburn, *Medieval European Coinage: The Early Middle Ages*, 272.

[260] Peter Sawyer, "From Roman Britain to Norman England," (Methuen, 1978), 233.

[261] Grierson and Blackburn, *Medieval European Coinage: The Early Middle Ages*, 286.

[262] Naismith, *Medieval European Coinage*, 8, 114.

The location of the mints of London, Rochester, Canterbury, Southampton, and Ipswich suggest that the early English coinage relied on imported silver from the continent, as exploitation of native British ores have not been proven to any significant extent. Silver from Quentovic, Therouanne, Ghent, Dorestad, and Tiel must have found its way to England via a steady exchange of goods. There is definitive proof of currency contact and trade across the English Channel during the first half of the eighth century to back this hypothesis: *sceattas* from Frisia and northern Frankia have been found in some number in the southern Early English kingdoms from the later part of the seventh century.[263] Of the English currency found during the eighth century, *sceattas*, small silver deniers that were minted in the Netherlands, make up 25-33% of finds. There is very little evidence for counterflow, suggesting that the early English kingdoms had a thriving export business with the Continent, and also that foreign coin may have kick-started a regional money economy in Britain.[264] This would suggest as well that Frisian silver was recycled at a significant rate in order to mint English pennies.[265]

The West Saxon kingdom instituted a standard coin design in the 850s, and the Mercians followed suit in the 860s. Their intentions were likely an attempt to retain consistency of the coinage, with four main issues taking place between c. 852-885. [266] D.M. Metcalf and J. P. Northover demonstrated that the coinage of Wessex and Mercia was heavily debased from the 850s to 878, suggesting that Norse incursions and their demands for tributes had a significant toll on the Anglo-Saxon monetary system.[267] The debasement would continue until Aethelstan's reforms c. 924.

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[263] Michael D. Costen and Nicholas P. Costen, "Trade and Exchange in Anglo-Saxon Wessex, ca. 600–780," *Medieval Archaeology* 60, no. 1 (2016), https://doi.org/10.1080/00766097.2016.1147785.

[264] D. M. Metcalf, "*Thrymsas* and *Sceattas* and the Balance of Payments," in *Early Medieval Monetary History: Studies in Memory of Mark Blackburn*, ed. Allen Martin, Rory Naismith, and Elina Screen (Ashgate, 2014), 244.

[265] Naismith, *Medieval European Coinage*, 8, 16.

[266] Grierson and Blackburn, *Medieval European Coinage: The Early Middle Ages*, 307.

The mints at York continued to produce coins even when the city fell under Norse occupation. These coins followed English prototypes, although the symbolism was distinctly Norse.[268] Gareth Williams suggests that the Norse produced and circulated their own Anglo-Norse coinage during the period c. 880-895 – beginning roughly a decade after their initial settlement in Northumbria and East Anglia – and that coinage circulated alongside a mixed silver and gold bullion economy.[269] Between c. 895 and 910, two series of coinages can be identified, one from East Anglia and the other from Northumbria.[270] The origin of the East Anglian coinage is obscure, but the Northumbrian coins were almost certainly struck in York.

In 918, the majority of the Danelaw came under Edward the Elder's control, and thus when Athelstan succeeded to the throne in 924, his territories resembled much of the entirety of modern England, excluding Northumbria. By 927, Northumbria had also come under Wessex control. Mint-signage began to be implemented more regularly in 924, and this may have been an attempt to regulate the coinage, as Section 14 of a new law code states: "there is to be one coinage over all the king's dominion, and no one is to mint money except in a town."[271] Following Athelstan's unification of England, the mints indicate that the coinage of the kingdom was minted in towns that traditionally presided outside the Danelaw. This may have been an attempt to retain control of an economy that now included a large Anglo-Norse population, and it may also indicate that minting did not occur to a significant degree under Norse rule.

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[267] D. M. Metcalf and J. P. Northover, "Debasement of the Coinage in Southern England in the Age of King Alfred," *Numismatic Chronicle* cxlv (1985).

[268] Kilger, "Wholeness and Holiness: Counting, Weighing and Valuing Silver in the Early Viking Period," 265.

[269] Gareth Williams, "Coins and Currency in Viking England, AD 865-954," in *Early Medieval Monetary History: Studies in Memory of Mark Blackburn*, ed. Martin Allen, Rory Naismith, and Elina Screen (Ashgate, 2014), 24.

[270] Williams, "Coins and Currency in Viking England, AD 865-954," 28.

3.III.3 Danish Mints

The Danish mints must be acknowledged, although only two, one at Ribe and the other at Hedeby, are known (Figures 37 & 38). Small *sceattas* circulated in Ribe as early as the 750s, suggesting that a coin currency was in use in parts of Scandinavia prior to the early Viking Age, though scholars are undecided as to whether the minting of these *sceattas* took place in Frisia or in Ribe.[272] Around c. 825, both Hedeby and Ribe began to mint their own coins, which appear to have been based on Carolingian coinage, both in design and weight. Dagfinn Skre has further linked a specific type of silver ring, the Duesminde, as a type of exchange system initiated by the Danish king in an attempt to melt down foreign coin into local currency.[273] The minting at Hedeby, and possibly at Ribe, would continue with several interruptions into the second half of the tenth century.[274]

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[271] Dorothy Whitelock and David Douglas, *English Historical Documents 1: c. 500-1042*, 2nd ed. ed., vol. 1 (London: Eyre Methuen, 1979), 381.; Blunt, "The Coinage of Athelstan, 924-939: A Survey."

[272] Kilger, "Wholeness and Holiness," 276.; Brita Malmer, "Münzprägung und frühe Stadtbildung in Nordeuropa," in *Haithabu und die frühe Stadtentwicklung im nördlichen Europa*, ed. Klaus Brandt, Michael Müller-Wille, and Christian Radtke, Schriften des archäologischen Landesmuseums (Neumünster: Wachholtz Velag, 2002), 118-20.; D. M. Metcalf, "A note on Sceattas as a meausre of International Trade, and on the Earliest Danish coinage," *BAR BS* 128 (1984).; D. M. Metcalf, "Danmarks ældste mønter," *Nordisk Numismatisk Unions medlemsblad* 1985:1 (1985).

Their locations, on the eastern and western coasts of the Jutland peninsula, are convenient. From the western side, the Early English and the Frankish coinage could be intercepted at the port of Ribe and melted down, either into the local Danish coins or into the Duesminde. On the eastern coast, dirhams from the east would have arrived in Hedeby, similarly, to be recycled into a more acceptable currency.

3.III.4 Conclusion

Changes in the distribution of the mints are clear. The centralized Frankish economy collapsed towards the end of the ninth century. If the hypothesis is correct that silver arrived into the Frankish kingdom from the east at least partially through the ports of the North Sea, then it is possible to see how the coastal mints collapsed between pirate raids and a redirection of that silver. The mints relied on this importation, and failed without a healthy flow of incoming silver. Meanwhile, the Early English coinage struggled through the early Viking Age, only to expand and centralize once Æthelstan took power and initiated reform in 924. The Danish mints, while often overlooked, provide strong evidence for a state-controlled economy north of the Frankish kingdoms. However, while the locations of the mints are known, the dating is uncertain. It should be noted that silver and the coinage it produced clearly relied on distribution through the North Sea trade networks, as there are no mints in Germany to indicate any east-west exchange. The early Viking Age was clearly a period of economic fluctuation in the Early English and Frankish kingdoms, and the Norse almost certainly made a large impact how and where rulers minted their coinage. An examination of the coinage follows below, which will lend greater insight into the role of coins and the effect the Norse had on the Western European economy.

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[273] Dagfinn Skre, "Dealing with Silver: Economic Agency in South-Western Scandinavia AD 600-1000," in *Means of Exchange: Dealing with Silver in the Viking Age*, ed. Dagfinn Skre, Kaupang Excavation Project (Aarhus: Aarhus Univeristy Press, 2007), 343.

[274] Malmer, "Münzprägung und frühe Stadtbildung in Nordeuropa."; Kilger, "Wholeness and Holiness," 254.

3.IV Silver Hoards

This section maps regional collections of silver bullion, mixed and coin hoards to determine how and to what extent the presence of the Norse in Atlantic Europe affected distribution of the deposition patterns. I will first clarify the difference between single-finds and hoards in relation the circulation of silver and coins within the Atlantic European economy; this explanation includes why single-finds are outside the scope of this thesis. This project analyzes distribution patterns by surveying and mapping the hoards and comparing depositions in relation to mint and urban locations, as well as clusters near to water-routes. By combining previous surveys, which were limited in scope by region or chronology, this project seeks to identify indicators that can illuminate economic patterns and trading networks.

3.IV.1 Single-finds vs Hoards

There are two types of find evidence that can be used to discuss the role that silver played in the early Viking Age economy of Western Europe: single-finds and hoards. Both groups have their merits in representing the economies in which they existed, and the following section will outline the ways that they can be used to analyze currency use and monetary activity.

Single-finds will not explored due to constraints of time. However, it is worthwhile to explore what they are, and what insights they contribute to explorations of economy. To begin, single-finds are more common than hoards. They often appear in the form of smaller coins of lower values, which were more likely to change hands on a regular basis. While isolated single-finds are unlikely to shed much light by themselves, collected en-masse they can be useful in understanding the trajectory of a region's economy. Single-find coins are recovered in both rural areas and in 'productive sites,' which are areas that have produced other single-finds, and are most likely areas of settlement.[275] Mark Blackburn asserts that, "as single finds, treated as accidental losses from circulation, these are prime evidence for the scale and use of currency."[276] Andrew Woods, who also argues for the superiority of single-finds, suggests that the chance-loss element can be used as a proxy for 'momentary activity,' which is indicative of the number of coins in circulation and the frequency of exchange. These single-finds further allow for geographical and chronological comparison.[277]

Despite the fact that they are arguably better conduits for understanding monetary activity and their economies, cataloguing single-finds on a macro-level would be an incredibly time-consuming undertaking, and thus compiling a single-find database for Western Europe is outside the bounds of this project. While single-finds have been published in the UK in the Coin Register of the *British Numismatic Journal*, and they have been compiled online in the *Corpus of Early Medieval Coin Finds* (EMC), which is maintained by the Fitzwilliam Museum,[278] other countries/regions have not been so generous, which makes a macro-mapping project difficult, if not impossible.

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[275] Naismith, *Medieval European Coinage*, 8, 7.; T. Pestell and K. Ulmschneider, *Markets in Early Medieval Europe: Trading and 'Productive' Sites, 650-850* (Macclesfield, 2003).
[276] Mark Blackburn, "The Coin-finds," in *Means of Exchange: Dealing with Silver in the Viking Age*, ed. Dagfinn Skre, Norske Oldfunn XXIII (Denmark: Aarhus University Press, 2008).
[277] Andrew Woods, "Monetary Activity in Viking-Age Ireland: The Evidence of the Single-Finds," in *Early Medieval History: Studies in Memory of Mark Blackburn*, ed. Martin Allen, Rory Naismith, and Elina Screen (Ashgate, 2014), 296.

Hoards, then, are a possible solution to this conundrum because of their more limited discoveries, and the spatial distribution of hoard patterns can be incredibly useful in understanding a specific aspect of a region's economy. A hoard, simply defined, is a collection of material valuables that have been deliberately deposited in a place by an individual or individuals. For whatever reason, whether intentional or otherwise, these individuals ultimately failed to return and retrieve their valuables.[279] Hoards possess the advantage of being (almost) entirely composed of inorganic materials. Therefore, they have been able to survive in various climates and soils much longer than other archaeological evidence. If the hoards contain coins, they possess the potential to be dated, and individual coins can often be traced to the site where they were minted. Non-coin metals, such as arm-rings or ingots can be dated through typology, and sometimes the metals can be run through stable isotope analysis in order to understand their place of origin. For this project, coin, mixed, and coinless silver hoards have all been included.

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[278] "Corpus of Early Medieval Coin Finds," Fitzwilliam Museum, Cambridge, www-cm.fitzmuseum.cam. ac.uk/emc.

[279] Jacek Gruszczyński, *Viking Silver, Hoards, and Containers: The Archaeological and Historical Context of Viking-Age Silver Coin Deposits in the Baltic c.800-1050*, Routledge Archaeologies of the Viking World, (London and New York: Routledge, 2019), 2.; F. Curta and A. Gandila, "Hoards and Hoarding Patterns in the Early Byzantine Balkans," in *Dumbarton Oak Papers* (Cambridge: 2011/2012), 45.

3.IV.2 Defining ‘Hoard’

Numismatists do not follow an exact rule concerning the number of pieces required to make up a hoard. Some scholars require a minimum of five or ten metal pieces, while others allow for a minimum of three coins found together.[280] This project will be using previously compiled data on known hoards and will not be creating its own criteria. As such, there may be an inconsistency in the nature of the hoards used across Atlantic and Baltic Europe, but this does not detract from the study itself. These depositions serve as useful indicators for the presence of deposited wealth, which can be contrasted against georeferenced textual markers and other archaeological material.

Similarly, the hoards utilized in this project are comprised of various compositions, namely coin, coinless, and mixed. Coin hoards are comprised entirely of coins; while this project is not overly concerned with the origin of these coins, Coupland’s datasets – used here - include only hoards that contain three or more Carolingian coins. Moreover, I do make note of hoards that contain Islamic coinage, ie dirhams, as they suggest handling by Norse groups. Coin hoards are much more common in Frankia, which was a coin economy during the early Viking Age. Coinless hoards, as the name suggests, are comprised of silver and other metal objects that have not been stamped as coinage. They may include bullion, as well as art and other forms of metal decoration and jewelry. Coinless hoards are most common in

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[280] Gruszczyński, *Viking Silver, Hoards, and Containers*, 17.; T.S. Noonan, "The Vikings in the East: coins and commerce," in *Developments around the Baltic and the North Sea in the Viking Age*, ed. Björn Ambrosiani and Helen Clarke, Birka studies (Stockholm: Statens historika museum, 1994), 221.; Torun Zachrisson, "Gård, gräns, gravfält: sammanhang kring ädelmetalldepåer och runstenar från vikingatid och tidig medeltid i Uppland och Gästrikland" (Doctoral Stockholm University, 1998).; Kilger, "Kaupang from Afar."; Simon Coupland, *A Checklist of Carolingian Coin Hoards 751-987*, (London: The Royal Numismatic Society, 2011), 207.

Scotland and Ireland, where standardized coinage was not in use. Mixed hoards, of course, are comprised of both coins and non-coin metal objects. These are most found along the Frisian coast and in England, where coinage was in use, but poorly regulated. For the distribution of these three hoard types, see Figure 39.

Jacek Gruszczyński outlines different scenarios for three types of hoards that have been discovered and recorded as part of the archaeological record: economic, political, and ritual symbolic.[281] The first, political, suggests that hoards were deposited due to disruption and instability in the social and political spheres.[282] He cites Bolin as the leading advocate for this explanation, who argued in his 1926 doctoral dissertation that depositions illuminated periods of violence and unrest. In this case, hoards served as a reflection of the historical events that occurred in a given region that would have led to their deposition.[283] Political depositions hold that because a hoard was never recovered, this indicates a permanent loss most likely due to warfare.[284] This further suggests that hoards were buried within or nearby the settlement of the individual burying the hoard, or where the owner had taken refuge in the case of unrest.[285] P.J. Casey also makes an excellent point in stating that because of the chaos and destruction of plunder and warfare, the original or legitimate owners of the contents of a hoard did not necessarily deposit said hoard. Thieves would simply have buried their booty and waited until calmer times allowed them to retrieve their stolen valuables, and for whatever reason failed to return.[286]

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[281] Gruszczyński, *Viking Silver, Hoards, and Containers*, 18-20.

[282] Gruszczyński, *Viking Silver, Hoards, and Containers*, 18.

[283] Sture Bolin, "Fynden av romerska mynt i det fria Germanien: studier i romersk och äldre germansk historia" (Doctoral Lund, 1926), 197-204.

[284] Philip Grierson, *Numismatics* (London, Oxford and New York: Oxford University Presss, 1975), 132.

[285] Gruszczyński, *Viking Silver, Hoards, and Containers*, 18.; Grierson, *Numismatics*, 133.

The idea that a hoard served an economic purpose, and that it should be associated with trade and an individual or family's accumulation of wealth, grew in counterpoint to Bolin's theories.[287] According to this argument, hoarding increased when the economy was growing, and it decreased as the economy declined. An individual would have had access to their hoard at all times, and thus made regular withdrawals and additions.[288] Florin Curta and Andrei Gândilâ assert that modern numismatists regard hoarding as a conscious process, in which valuables are selected and stored in order to retain value, and can thus be understood as a pattern of personal defense against the depreciation of the currency or against the loss of the valuables in the face of impending disaster.[289] B. Malmer has likened these hoards as being similar to modern day savings accounts, or 'safe-deposit boxes' (*bankfack*).[290] The fact that the hoard was left in the ground to be discovered in more modern times indicates that something exceptional occurred: either a mundane example of forgetfulness, or something more dramatic and politically based, like plunder, violence, and warfare.

The final deposition type took place under ritual or symbolic circumstances. In this case, the hoard was never meant to be retrieved, and these are often found in boggy, watery and/or liminal places.[291] Many of the hoards examined in this study are likely to be identified as either political or economic, though it should be noted that hoards found with burials will be identified as grave goods. As valuables deposited along with the dead are intended to follow their deceased owner into the afterlife, and therefore have neither political nor economic motives, grave depositions will thus fall under the typology of ritual/symbolic.

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[286] P.J. Casey, *Understanding Ancient Coins: An Introduction for Archaeologists and Historians* (London: University of Oklahoma Press, 1986), 56.

[287] Gruszczyński, *Viking Silver, Hoards, and Containers*, 18.; V. Jammer, *Die Anfänge der Münzprägung im Herzogtum Sachsen (10. und 11. Jahrhundert)* (Hamburg: Museum für Hamburgische Geschichte, 1952), 39-43.; W Hävernick, "Epochen der deutschen Geldgeschichte im Frühen Mittelalter," *Hamburger Beiträge zur Numismatick* 9, no. 10 (1956).

[288] Casey, *Understanding Ancient Coins*, 55.

[289] Curta and Gandila, "Hoards and Hoarding Patterns," 45-6.

[290] B. Malmer, *Mynt och människor* (Stockholm, 1968), 7.

3.IV.3 Survey of Hoards

A total of 596 hoards have been recorded for this project. The hoards are compiled into their own database and are organized thus: 'country,' indicative of the modern boundaries in which the hoards are found; 'location'; 'latitude'; 'longitude'; 'deposition date,'; 'TPQ' (*terminus post quem*); 'date discovered'; 'context'; 'contents,' in which the specific contents of the hoard are descripted; 'context,' for example, whether the hoard was discovered with a grave or in a settlement site; and 'source,' citing the original survey the data was compiled from. The 'deposition date' and 'TPQ' are used separately from one another; there is some disagreement in the numismatic community as to whether a *TPQ* date or an estimated date of loss provides a more accurate picture of coin/hoard deposition. A *TPQ* date signifies the earliest possible date at which point a coin will have been lost or a hoard would have been deposited, because it is based on the youngest dated coin in a find. Blackburn argues that archaeologists and numismatics are more interested in when a coin was lost. Given the coin economies of Atlantic Europe during the ninth century, he suggests that a coin was in circulation for about ten to

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[291] Gruszczyński, *Viking Silver, Hoards, and Containers*, 19.

20 years before it was lost/deposited; in the Scandinavian mixed-bullion economy, its circulation period was extended.[292] Coupland similarly finds dating Carolingian hoards difficult because of the nature of minting and circulation. He too prefers an estimate of deposition over a *TPQ*, because “it will frequently be necessary to date a hoard to within a period over which a coin was minted, especially when the contents of a hoard are poorly recorded.”[293] It is also necessary to determine the date of deposit for a hoard that either has no coins or possesses coins that are too corroded to be dated. The coinless hoards must thus have a wider date-range. This project follows the interpretations of the historians and archaeologists who have compiled their own data, and the type of dating used will be noted in the database.

It is likely that this database is incomplete, because publications of previously-recovered hoards and discoveries of new hoards are occurring on a frequent basis. For example, in 2014, Simon Coupland published a supplement to his 2011 Carolingian coin hoard catalogue, in which he added an additional twenty-five hoards to his original publication.[294] It is also important to note that not all hoards are recorded or made known to the public. There are several reasons for this: for example, in France, the laws that surround metal detecting are quite restrictive, and Coupland suggests that this results in a number of finds going unreported because the detectorists fear confiscation and/or prosecution.[295] Separately, in Britain, detectorists are similarly known to covet their finds, and are not always cooperative with reporting to police or local heritage outlets.[296] The collection of hoard data for this project ended in December 2020.

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[292] Blackburn, "The Coin-finds," 38.; Kershaw et al., "The scale of dirham imports to the Baltic in the ninth century: new evidence from archaeometric analyses of early Viking-Age silver."
[293] Coupland, *A Checklist of Carolingian Coin Hoards 751-987*, 206-7.
[294] Simon Coupland, *A Supplement to the Checklist of Carolingian Coin Hoards, 751-987*, (London: The Royal Numismatic Society, 2014), 213-22.
[295] Coupland, *A Checklist of Carolingian Coin Hoards 751-987*.

The hoards represented above have been scraped from a variety of sources, some of which are over forty years in age. What has been compiled comes from surveys and checklists of coin/silver hoards recorded for various regions (i.e. the British Isles) or containing specific elements (such as eastern dirhams or Carolingian coins.) The hoards represent a specific time period, c. 750-950. Because the sample data may be biased or skewed, it is important to acknowledge that the maps are not a complete representation of the Atlantic European coin and silver economy. Hoard distribution indicates brief flashes of collected wealth; it does not reflect common monetary exchanges of ordinary ninth-century peoples.

3.IV.3.i Carolingian Hoards

In the area that was once the Frankish Empire, one hoard has been recovered from Austria, two from Spain, six from Belgium, ten from Italy, ten from Switzerland, 34 from Germany, 48 from the Netherlands, and 161 from France. In total, 261 hoards from Frankia meet the criteria for this project.

There have been a number of surveys of Carolingians hoards with pre-920 dates, beginning with Hans Herman Völckers's study of select Carolingian coinage in 1965.[297] Karl Morrison and Henry Grunthal's comprehensive list appeared in 1967, which, while more inclusive than Völckers work, was deemed to contain numerous errors.[298] Further lists have been compiled by Duplessy in 1985,[299] Haertle in 1997,[300] Armstrong 1998,[301] Coupland in 2011[302] and amended in 2014,[303] and Moesgaard in 2012.[304] Coupland's and Moesgaard's compilations are the most up-to-date, including the most recently discovered hoards. Their dating is similar, but deposit dates may sometimes vary by several years. Figure 40 below represents the geo-referenced locations of Coupland's compiled databases for hoards c. 750-950.[305]

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[296] Significant progress has been in recording metal detectorist finds since the implementation of the Portable Antiquities Scheme in 1997.

[297] Hans Herman Völckers, *Karolingische Münzfunde der Frühzeit (751-800)*, Abhandlungen der Akademie der Wissenschaften in Göttingen, philologisch-historische Klasse III.61, (Göttingen, 1965).

Simon Coupland defines Carolingian coinage as coins struck under all rulers of Frankish territories until 987, after which the Capetians seized the crown in France and the Ottonians took control of Germany and Italy. He excludes feudal coins, which were struck by local counts and not official monarchs.[306] To be considered a Carolingian hoard, there must be a minimum of three Carolingian coins, as two could perhaps serve as a marker of burial custom (i.e. paying the ferryman) or simply have been lost by their owner. Additionally, the catalogue lists hoards that have been found outside territories ruled by the Franks, including Poland, Hungary, Spain, Scandinavia, and Britain, but which contain Carolingian coins. Coupland's study does not offer *TPQ* dates, but instead provides estimated dates of deposition, which is based on the circulation periods of the coins.

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[298] Karl F. Morrison and Henry Grunthal, *Carolingian Coinage*, Numismatic Notes and Monographs, (New York: American Numismatic Society, 1967).; Coupland, *A Checklist of Carolingian Coin Hoards 751-987*, 203.

[299] J. Duplessy, *Les Trésors monétairs médiévaux et modernes découverts en France*, vol. 1, 751-1223 (Paris, 1985).

[300] C.M. Haertle, *Karolingische Münzfunde aus dem 9 Jahrhundert* (Colonge, Weimar and Vienna, 1997).

[301] Simon Armstrong, "Carolingian Coin Hoards and the Impact of the Viking Raids in the Ninth Century," *The Numismatic Chronicle* 158 (1998), https://www.jstor.org/stable/42668554.

[302] Coupland, *A Checklist of Carolingian Coin Hoards 751-987*.

[303] Coupland, *A Supplement to the Checklist of Carolingian Coin Hoards, 751-987*.

[304] Jens Christian Moesdgaard, "Les ateliers monétaires normands dans la tourmente viking," in *Circulations monétaires et réseaux d'échanges en Normandie et dans le Nord-Ouest européen* Antiquités-Moyen Age (Caen: Publications du CRAHM, 2012).

[305] Due to complications with the Coronavirus Pandemic, I was forced to exclusively use Simon Coupland's data, which was made publicly available online.

[306] Coupland, *A Checklist of Carolingian Coin Hoards 751-987*, 207. Hoards of this nature would lend useful insights into the nature of the Frankish economy during this period, but unfortunately no such surveys could be found.

There are 297 Carolingian hoards identified by Coupland that fit within the period of study c. 750-950, and it should be noted that only 14 of them appear to have any evidence of Norse activity/handling. Namely, the inclusion of dirhams, as well as 'pecking' at coins to check for the quality of the silver, indicates evidence of Norse handling. Of these fourteen, five are found in Great Britain, two in Norway, two in Denmark, and one in Sweden. That leaves only two in France, one in Germany, and one in Italy; thus, five hoards found within the Frankish territories qualify as definitively linked to the Norse.

Figure 40 reveals that Carolingian coin hoards were deposited mainly within the borders of the Frankish territories, while mixed hoards are found in Frisia and up into Scandinavia, and there is also an interesting cluster within modern-day Hungary. Carolingian hoards containing dirhams were discovered in northern and eastern territories, which suggest that the dirhams were more often than not intercepted and recycled into Frankish coinage before they had a chance to circle widely in the Carolingian economy.

3.IV.3.ii Insular Hoards

A total of three hoards have been recorded for Wales, six for Scotland, 27 hoards Ireland, and 75 for England. In total, 111 insular hoards meet the criteria for this project. Data for the insular hoards has been scraped from a variety of sources, some of which overlap. Graham-Campbell compiled a survey in 1975 of silver and gold hoards “of Scandinavian character” for Scotland, which has allowed for the inclusion of mixed and coinless hoards within the confines of this study.[307] This is especially helpful, as Scotland did not operate under a coin-economy during this early period. Blackburn and Pagan’s 1986 compilation is the most useful survey of insular coin hoards, which itself builds on Michael Dolley’s 1966 check-list.[308] Blackburn and Pagan list coin hoards between c. 500-1100, so their aim is not to characterize hoards, but instead to understand metal distribution throughout Britain for the early medieval period. Moving to Ireland, Linn Marie Krogsrud compiled a complete check-list for the silver hoards on the island.[309] Krogsrud’s 2012/2013 list ranges from c.800-1180, beginning in the early Viking Age and extending until the Anglo-Norman invasion of Ireland; her list is compiled from the works of Johannes Bøe,[310] Michael Dolley,[311] James Graham-Campbell, [312] Richard Hall,[313] and John Sheehan.[314] The Portable Antiquities Scheme website was also utilized in order to look for coin, mixed, and coinless hoards that have not yet been published within England.[315]

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[307] James Graham-Campbell, "The Viking-age silver and gold hoards of Scandinavian character from Scotland," *Proceedings of the Society of Antiquaries of Scotland* 107 (1976).

[308] Mark Blackburn and Hugh Pagan, "A revised check-list of coin hoards from the British Isles c. 500-1100," in *Anglo-Saxon Monetary History: Essays in memory of Michael Dolley*, ed. M. A. S. Blackburn (Leicester: Leicester University Press, 1986).; R. H. M. Dolley, *The Hiberno-Norse Coins int he British Museum*, Sylloge of the Coins of the British Isles, B, I., (London: British Museum, 1966).

[309] Linn Marie Krogsrud, "Checklist of Viking-Age silver hoards from Ireland," *The Journal of the Royal Society of Antiquaries of Ireland* 142/143 (2012-2013).

[310] Johannes Bøe, *Norse antiquities in Ireland* (Oslo, 1940).

[311] Dolley, *The Hiberno-Norse Coins int he British Museum*.

[312] James Graham-Campbell, "Viking-Age silver hoards of Ireland" (paper presented at the Seventh Viking Congress, Dublin, 15-21 August 1973).

[313] Richard Hall, "A check list of Viking-Age coin hoards from Ireland," *Ulster Journal of Archaeology, Third Series* 36/37 (1973-4).

[314] John Sheehan, "Early Viking Age silver hoards from Ireland their Scandinavian elements," in *Ireland and Scandinavia in the early Viking Age*, ed. H.B. Clarke, M. Ní Mhaonaigh, and R. Ó Floinn (Dublin: 1998).

3.IV.3.iii Dirham hoards of Scandinavia and the Baltic

A total of three hoards have been recovered from Norway, five from Denmark, 41 from Poland, and 136 from Sweden. In total, 185 hoards from Scandinavia and the Baltic meet the criteria for this project.

Two sources were used to survey the eastern dirham hoards that were deposited in Scandinavia and the Baltic basin. For Dagfinn Skre's second volume on the Kaupang project, *Means of Exchange,* Christoph Kilger compiled a database of all dirhams finds from the Near and Middle East and Central Asia, up the river networks of Eastern Europe, and finally into the Baltic basin and the North Sea areas.[316] His own map, shown below (Figure 50A), is more geographically comprehensive than my own, but the hoards he uses (*TPQ* 771-892) are ultimately limited chronologically by a time-frame constrained by the life of Kaupang's settlement.

Following on the heels of Kilger's impressive study, Gruszczyński published *Viking Silver, Hoards and Containers* in 2019, though his study encompasses a larger chronological distribution, c. 800-1050.[317] His own map, Figure 50.B below, uses a kernel density overlay to highlight hoarding 'hot spots,' which is slightly misleading in its analysis. By creating the overlay, he is suggestive that the patterns are continuous throughout the period of study, as if the depositions are simultaneous. While the map is certainly impressive looking, it does not offer an unbiased assessment of dirham hoarding throughout the Baltic Basin, Britain and Ireland.

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[315] "Portable Antiquties Scheme," 2020, https://finds.org.uk.

[316] Kilger, "Kaupang from Afar," 201.

[317] Gruszczyński, *Viking Silver, Hoards, and Containers*.

As can be seen in Figure 48, dirham hoarding in the Baltic Basin was relatively limited between c. 750-950. On the other hand, there is an intense clustering on Gotland, suggesting the location was hotspot for dirham importation. Notably, dirham hoards, and thereby possibly dirhams themselves, do not appear west of the German heartland, nor are they common in Denmark, Norway, or the Swedish mainland. This suggests one of two things: first, the silver itself did not move west into Atlantic Europe; or second, that local currencies were sufficiently strong in not only the Frankish kingdoms, but also in Atlantic Scandinavia, wherein these dirhams were melted down and recycled into local forms of silver currency. The second hypothesis is much more likely, and will be discussed in greater depth below.

3.V Chronological Survey

The data scraped from previous studies, represented above, is clearly indicative of bias, whether that is chronological, geographical, or source type. By focusing on Carolingian vs. Islamic coin-types, or narrowing regions to either Britain and Ireland or the Baltic Basin, it is impossible to understand the economy of Atlantic Europe as a whole, and what drove it during this early period. By combining this data and mapping the hoards chronologically, it is proposed that spatial analysis will reveal patterns of activity for both native populations and the Norse who moved throughout Western Europe.

3.V.1 Hoards during the reign of Charlemagne, 750-814

The hoards represented in Figure 43 are inclusive of all hoards that were deposited from c. 750 until the end of Charlemagne's reign in 814, even those that do not contain evidence for Carolingian currency. The map, Figure 43, suggests that hoarding during this period is relatively uncommon. On closer examination, the map reveals that the majority of hoards were deposited either on the coast or along waterways/river systems. Only eleven Islamic coin hoards have been discovered for this period, which would seemingly indicate that the silver Charlemagne used to mint his silver deniers was not imported from the Islamic territories to the east through the Baltic basin. Three Islamic coin hoards were found along the River Rhine. The Wiesbaden-Biebrich hoard contains over 4000 Carolingian coins, as well as Islamic and Papal coins; its deposition date is estimated to be between c. 795-813.[318] The hoard at Ilanz (II) contains 48 Carolingian coins, as well as Arabic dirhams and Anglo-Saxon coins, with a deposition date c. 794-795[319]. Steckborn consists of only three Carolingian coins, but contains 37 Arabic dirhams; deposited between c.800-813, Coupland suggests that the coins were buried with an individual, although a ritual deposition is unconfirmed.[320] This may suggest that Charlemagne imported Islamic silver through other routes in the south.

Mixed hoards are found in Frisian and Saxon territories, between the Frankish territories and a unifying Danish kingdom, and not near any known Carolingian *emporia.* The hoard at Krinkberg, deposited c. 790-794, contains 76 Carolingian coins, as well as early Danish coins (most likely the *sceattas* of Ribe), as well as non-coin mineral material. The Krinkberg hoard suggests trade and/or travel between the two coin-economies due to its combination of coins.

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[318] Coupland, *A Checklist of Carolingian Coin Hoards 751-987*.
[319] Coupland, *A Supplement to the Checklist of Carolingian Coin Hoards, 751-987*.
[320] *Ibid.*

There do not appear to be coinless hoards from this period, nor have any coin hoards been recovered in either Ireland or Britain (again, see Figure 43). While the lack of hoards may be supplemented by single-finds, an attempt to compile Anglo-Saxon coins from the reigns of early English monarchs, c.750-814, resulted in over one thousand finds using the EMC database. As such, a lack of hoards in Britain cannot suggest silver scarcity, because of the abundance of single-find coins. Even within areas known to operate using coinage, no discoveries have been reported, which may lead to the conclusion that hoarding in the form of a 'safety-deposit box,' was not a viable or logical option for those using coin as a form of currency during the late-eighth and early-ninth centuries.

3.V.2 Hoards during the reign of Louis the Pious, 814-840

Hoarding patterns under Louis the Pious are similar to those under Charlemagne, which supports claims that Louis's rule was one of strength and stability (Figure 44). Coin hoards, mostly comprised of Carolingian coins, have been recovered from within the Frankish boundaries, and may have either been political or economic. No hoards can be observed in the Early English kingdoms at this time, and only a single hoard has been recovered in Ireland, which is in the vicinity of Dublin, where the Norse first settled c. 840-41. A clustering of dirham hoards can be seen on Gotland, though Islamic coin hoards do not increase outside of this grouping.

3.V.3 Hoards following the division of the Carolingian Empire, 840-876

Hoarding began in earnest during the rule of Charles the Bald, which overlaps with the rules of Pepin I, Pepin II, Charles of Provence, Lothar I, and Louis the German (Figure 45). It is clear from the number of rulers during this period alone that the Franks were in the midst of great upheaval during the middle of the ninth century, which can be confirmed using the literary sources. Moreover, the crises were both internal and external, and this is reflected in hoarding activity.

As discussed above, the mints moved away from the coast during the rule of Charles the Bald. As the mints moved inland, hoards appear to become more common close to the shore. Similar to the hoards recovered from the rules of Charlemagne and Louis the Pious, closer inspection of the geographical distribution reveals that inland hoards were most often deposited along water routes.[321] By mapping the hoards on top of the kingdom boundaries, there is a very stark contrast between the number of hoards found in the territories of Charles the Bald and Lothar I, versus the single hoard recovered from the territory of Louis the German. There are only two mints recorded within Louis the German's kingdom, and these two lie close to its western borders. This indicates that only limited silver entering his territories was recycled for local coinage. With only a single hoard and two mints identified in Louis's kingdom, this begs the question: where is the silver for the eastern Frankish kingdom?

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[321] This may be a correlation, as opposed to causation, given that settlements tend to cluster near to main water sources. However, the observation should not go unnoted.

During this period, an Islamic coin hoard had reached Hedeby, which may indicate that the mint in the urban site had begun to slow or stop altogether, because it was not melted down and recycled into local currency. While Islamic coin hoards were buried at a significant rate in Gotland at this time, there are only three depositions along the southern Baltic coast, and nor had any Islamic coin hoards made their way into Frankish territories.

While there was an increase in hoarding on the Continent, hoard depositions had not yet become popular in Britain or Ireland. Only one coin hoard and one mixed hoard has been recovered in Ireland for this period, while England has recovered one coin hoard located north of Ipswich, near to the coast.

3.V.4 Hoards at the end of Carolingian rule, 877-924

The mints of Charles the Bald and his co-ruler/successors were maintained within the Frankish kingdom for this final period of study; no survey of the later mints is currently available. Hoarding patterns remain constant in the west Frankish kingdoms, although hoards appear to be less common along the coast. However, hoards do appear to concentrate along the westernmost mint locations (see Figure 46). This may suggest one of two things: first, that coins were not much in use along the coast following the removal of the mints, given the Frankish attempt to control the currency. Second, that the areas around the mints were in a frequent state of crisis, which led individuals to deposit their wealth in an attempt to keep their fortunes intact.

Hoarding becomes much more common in Britain and Ireland during this period. Within Britain, it is unsurprising that the hoards were deposited in areas where the

Norse chose to settle. This was a period of significant Norse activity, as the Norse were carving out territory in what became the Danelaw, in England, and in Dublin, in Ireland. It should be noted that two of the hoards deposited in Ireland (Drogheda and Nobber), and four British hoards (Cuerdale, Harkirke, Dean, and Goldsborough) contained Islamic coins, indicating silver importation via the Baltic channels and in line with the increase of hoarding in the Baltic itself.[322]

3.V.5 Hoards, 924-950

Hoarding began to slow in the Frankish heartlands during this last twenty-six-year period of study. This may be a result of less minting being undertaken. Grierson and Blackburn assert that the coins cannot be considered royal currency: "they were really coins of the great feudatories, who issued them in the king's name but to their own profit in what were effectively their own mints."[323] There may ultimately have been less coins in circulation at this point, because – despite governmental instability, as indicated by contemporary sources – hoarding within the Frankish heartlands decreases. Moreover, hoards in the Baltic and Eastern Europe remain stable, though Islamic coins do not cross into Frankia, Britain, or Ireland.

Hoarding also slows in the areas of England where Æthelstan established mints. Figure 47 reveals that hoards were deposited in either Norse-dominated areas or along the border of the territories that had previously been the Danelaw; the Norse living in this area may have continued to rely on a mixed-bullion economy. In

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[322] These dirham hoards are not colour-coded in blue because they may be more likely to be identified as a Coin hoard or mixed hoard, because they either contained a number of other coins from non-Islamic kingdoms, or because the dirhams were accompanied by non-coin material.

[323] Grierson and Blackburn, *Medieval European Coinage: The Early Middle Ages*, 246.

Ireland, hoarding continues around the periphery of Norse-controlled Dublin, with one coin hoard recovered from the south of the island, which may be connected to the Norse settlement at Cork.

3.V.6 A note regarding Ireland and Scotland

The kingdoms of/within Scotland, Wales, and Ireland did not mint their currency at this time. It is therefore impossible to fully appreciate the economic impact of the Norse raids on these kingdoms. The tribes and kingdoms of Scotland and Wales did not mint their own coin, but no significant amount of silver has been left behind in the form of hoarding to suggest that bullion was ever a large-scale form of currency. Lack of evidence suggests that Scotland and Wales were silver-poor, and hoards have not been recovered from inland territories in either kingdom; the only hoards recovered have been found along their coast. Ireland has far better documentation for silver deposition, especially in the inland regions; Viking Age Ireland hosts the greatest concentration of silver hoard deposits outside of Scandinavia.[324]

At the beginning of the ninth century, Ireland was divided into a number of petty kingdoms, which were overseen by a smaller number of overkings.[325] Ireland was largely non-urban and relied on kin-based relationships, and a regimented monetary system was mostly unnecessary within the confines of intraregional trade.Because silver transactions likely did not occur intra-regionally to any large extent, silver did not need to be recycled into local coin in order to be used as currency.

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[324] Emer Purcell and John Sheehan, "Viking Dublin: Enmities, Alliances, and the Cold Gleam of Silver," in *Everyday Life in Viking 'Towns': Social Approaches to Viking Age Towns in Ireland and England c. 800-1100*, ed. D. M. Hadley and L. T. Harkel (London: Oxbow Press, 2013), 37.

[325] Bart Jaski, *Early Irish Kingship and Succession* (Dublin: Four Courts Press, 2013); Valante, *The Vikings in Ireland*.; F. J. Byrne, *Irish Kings and High Kings* (Dublin: Four Courts Press, 2001).

By mapping the Irish hoards, it becomes clear that there are few finds in the west of the island; a large concentration has been recovered in the east, which is where the sources suggest that a majority of the Norse activity took place. Viking Age hoards recovered in Ireland reveal much about the geographical distribution of Norse settlement and trade, with Michael Kenny stating that “this in turn is intimately bound with the question of who used coins and in what manner.”[326] Furthermore, this draws our attention to the fact that a concentration of depositions lies north and west of the Liffey, but within an arc of between 30 and 70 miles from Dublin.[327] This distance would indicate that the depositions did not lie within the immediate hinterlands of Dublin, and thus would not have been deposited by Norse/Hiberno-Norse hands.

It is important to point out that the majority of the hoards buried in Ireland c.850-950 are actually coinless, with mixed hoards increasing between c.900-50.[328] In fact, only four of the coin hoards date from the ninth century, and the coin hoards that do appear more routinely in the tenth-century are significantly lighter than the coinless and mixed hoards that have been discovered.[329]

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[326] Michael Kenny, "The Geographical Distribution of Irish Viking-Age Coin Hoards," *Proceedings of the Royal Irish Academy: Archaeology, Culture, History, Literature* 87, C (1987): 511.

[327] Kenny, "The Geographical Distribution of Irish Viking-Age Coin Hoards," NEED PAGE NUMBER.

[328] John Sheehan, "Ireland’s early Viking Age silver hoards: components, structure and classification," *Acta Archaeologica* 71 (2000): 53-4.; Note: there are number of coin-only hoards in Ireland, however the majority of these are dated after 950.

[329] Purcell and Sheehan, "Viking Dublin: Enmities, Alliances, and the Cold Gleam of Silver," 37.

3.V.7 The Silver Curtain

In applying a distribution layer of the Islamic coin hoards c. 750-950 against the Atlantic European mints, patterns indicate that Islamic coinage rarely passes from Eastern Europe and the Baltic into Frankish territories. This phenomenon will henceforth be referred to as the *silver curtain* (see Figure 49)*,* which suggests that any silver entering Europe from the east remained in the form of Islamic coinage until it encountered a local coin economy, where it was then melted down and recycled into local coinage or bullion. Islamic coin hoards, while abundant in Sweden and the Baltic Basin, are uncommon in Norway and Denmark, and this may have been the result of interception by the mints at Ribe and Hedeby, despite the erratic minting of the Danish kingdom. Similarly, Islamic coin hoards are even less prevalent in the Carolingian territories; while Islamic coins do appear along the eastern edge of the minting areas, they do not penetrate the Frankish heartlands. This lack of silver may simply be an example of absence of evidence. It is possible that silver hoards have been recovered in central Germany, but that a survey of depositions has yet to be compiled. If, however, no silver depositions exist in central Germany for this period whatsoever, then this lack of visible trade must be examined.

Outside of York – a sometime-Norse stronghold – the only English hoard to contain dirhams is at Croydon, indicating that the eastern coins were unlikely to survive intact once they entered the Early English coin economy. Islamic coin hoards are also to be found on the west coast of England and on the east coast of Ireland, which would suggest Norse influence. As discussed above, the majority of the hoards buried in Ireland c.850-950 are either coinless or mixed; only four hoards containing coins date from the ninth century, and the coin hoards that do appear more routinely in the tenth-century are significantly lighter than the coinless and mixed hoards that have been discovered.[330] The lack of coins suggests that the coin itself held little value to the Norse economies of the Viking Age. Instead, it is proposed that weighted silver drove economic exchange in Britain and Ireland, as it did throughout the rest of the Norse world. The Hiberno-Norse weighed out coins, ingots, and other forms of hack-silver to service their bullion currency.[331] That being said, the lack of Islamic coins within the Danelaw is perplexing, as Jane Kerhsaw suggests that Islamic coins were the primary source of silver for the Danelaw economy.[332] It is therefore likely that the Danelaw economy was strong enough to ensure that any imported Islamic dirhams were recycled into the local form of currency.

The presence of the silver curtain lends credence to the theory that a significant amount of silver was imported from the east and brought west via Norse networks. The above has demonstrated that European mines did not produce nearly enough silver to support the economies of Atlantic Europe. The most likely explanation is that the silver came from the east, and while Mediterranean merchants likely distributed part of it, the very lack of dirham hoards between the Baltic and the Frankish territories indicates that the silver was redistributed and recycled once the Islamic coinage passed from east to west.

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[330] *Ibid.*
[331] Purcell and Sheehan, "Viking Dublin: Enmities, Alliances, and the Cold Gleam of Silver," 36-7.
[332] Jane Kershaw, "An early medieval dual-currency economy: bullion and coin in the Danelaw," *Antiquity* 91, no. 355 (2017): 174, https://doi.org/10.15184/aqy.2016.249.

3.VI Conclusion

This chapter serves as a methodological foundation for understanding how silver-hoard depositions can expand analysis of Norse movement during the early Viking Age. This chapter began with an investigation into the known silver mines in Western Europe, as well as those found in the Near and Middle East and Central Asia, c. 750-950. Melle remains the only Western European site that has been definitively proven to have exploited silver to any significant degree, although parts of northern England may have produced silver at a very minimal scale. It must therefore be concluded that silver was imported from the east in order for the western European coinages to have circulated at the level that is currently hypothesized by numismatists and economic historians.

Mints in Frankia were numerous under Charlemagne, and Louis the Pious followed his father's reign by ensuring that the currency was strictly regulated and uniform. Towards the end of his reign, and certainly by the beginning of Charles the Bald's, the mints began to move away from the Gallic coast, most likely because of intensifying Norse aggression. By Charles's death, the economy and its currency were suffering; both external influence and internal infighting ensured that the economy would not recover by the end of this period of study, c. 950. Across the Channel, the Early English kingdoms did not begin regularly mint-signing their coins until c. 924, when Æthelstan took power. Up to this point, only a select number of mints in the south of England are known. After the foundation of the Danelaw, the Norse did continue to mint English-style coins, but it likely that the areas operated using a mixed-bullion economy.

Denmark minted sporadically in the towns of Hedeby and Ribe, but the dating of the coins cannot be identified conclusively, nor is it clear to what extent the Danish kingdom used coin-currency. It is not until a much later period that Scandinavia began to mint its own coinage in earnest; Sigtuna first minted Svealandic coinage c. 995,[333] and Norway minted limited coinage in 990s under Olaf Tryggvason and then again after 1015, when Olaf Haraldsson became king.[334]

The evidence suggests that the currency of Frankia remained strong enough to stop the infiltration of Islamic coinage from mixing with the circulating Frankish currency in its original form. The Islamic coins do not pass the silver curtain intact, and thus whatever Islamic coins may have passed into Frankia were melted down and re-minted by Carolingian rulers. The same may also be said for the Early English kingdoms, despite limited mint locations.

Ireland, despite being a coinless area during this early period, features an impressive number of hoards. While Gotland is clearly the island of greatest silver deposition, Emer Purcell and John Sheehan have identified 125 silver hoards with ninth and tenth century dates, indicating that the hoards represent, "a concentration of deposits not equaled elsewhere outside of Scandinavia during this period."[335] Of those 125 hoards, only 66 of them lie within our date of study, c. 750-950, which remains an impressive number. The remaining 59 hoards are mixed or coin hoards and were deposited between c. 950-1000.

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[333] Thomas Lindkvist, "Kings and provinces in Sweden," in *The Cambridge History of Scandinavia*, ed. Knut Helle (Cambridge: Cambridge University Press, 2003), 224.' Gruszczyński, *Viking Silver, Hoards, and Containers*, 156.

[334] Svein H. Gullbekk, "Vestfold: A Monetary Perspective on the Viking Age," in *Early Medieval Monetary History: Studies in Memory of Mark Blackburn*, ed. Rory Naismith and Elina Screen (Taylor and Francis Group, 2014), 345.

[335] Purcell and Sheehan, "Viking Dublin: Enmities, Alliances, and the Cold Gleam of Silver," 37.

Despite the tribute that the Norse demanded from the English and Frankish kingdoms, as recounted in the chronicles, there is no significant evidence for hoarding in Norway, Denmark, or even the Danelaw of Britain or Norse-held Normandy. While it is likely the Norse melted the coinage down and recycled the silver for bullion use, there is currently not enough silver evidence to suggest that the Norse fed the silver back to the Scandinavian homelands.

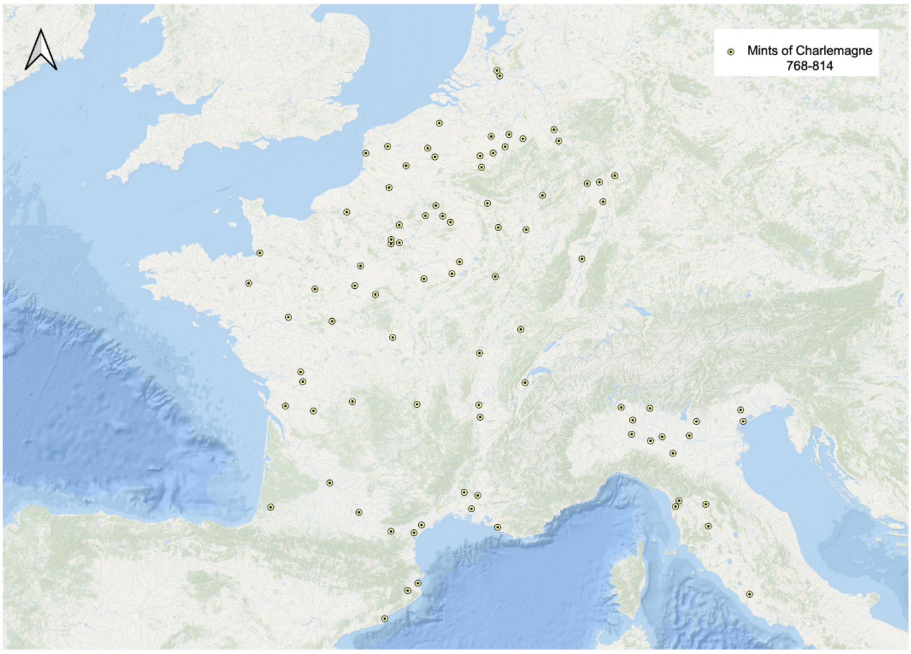
Mints of Charlemagne
768-814

Figure 27: Mints of Charlemagne, 768-814

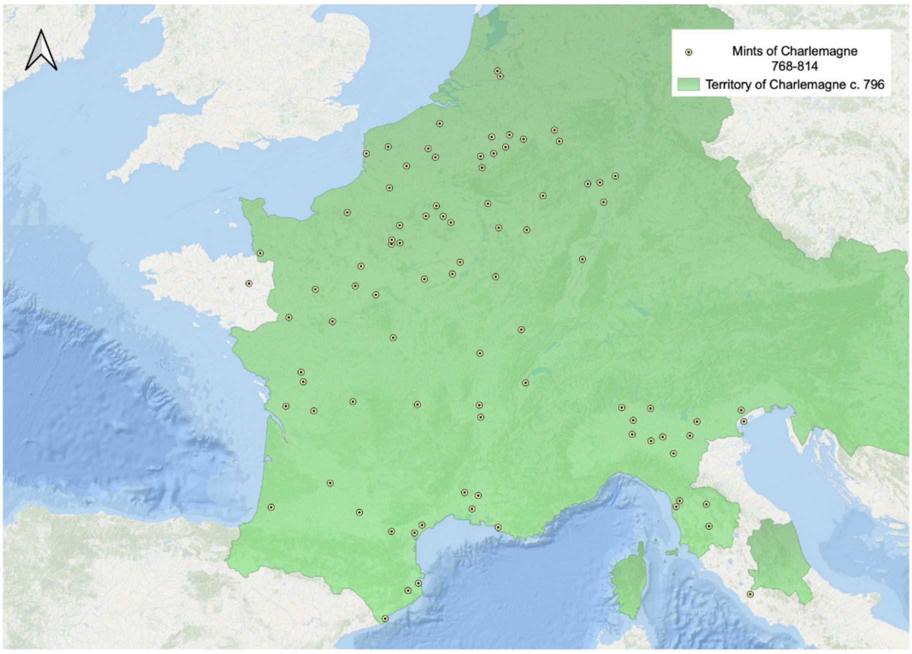
Mints of Charlemagne
768-814
Territory of Charlemagne c. 796

Figure 28: Mints of Charlemagne, 768-814
with Frankish kingdom c. 796

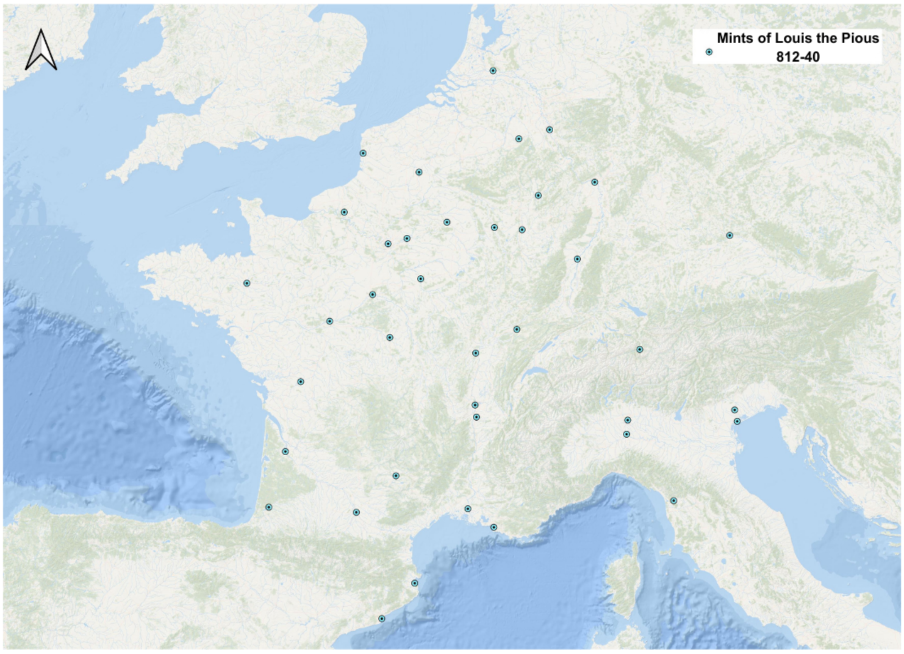
Mints of Louis the Pious
812-40

Figure 29: Mints of Louis the Pious, 812-40

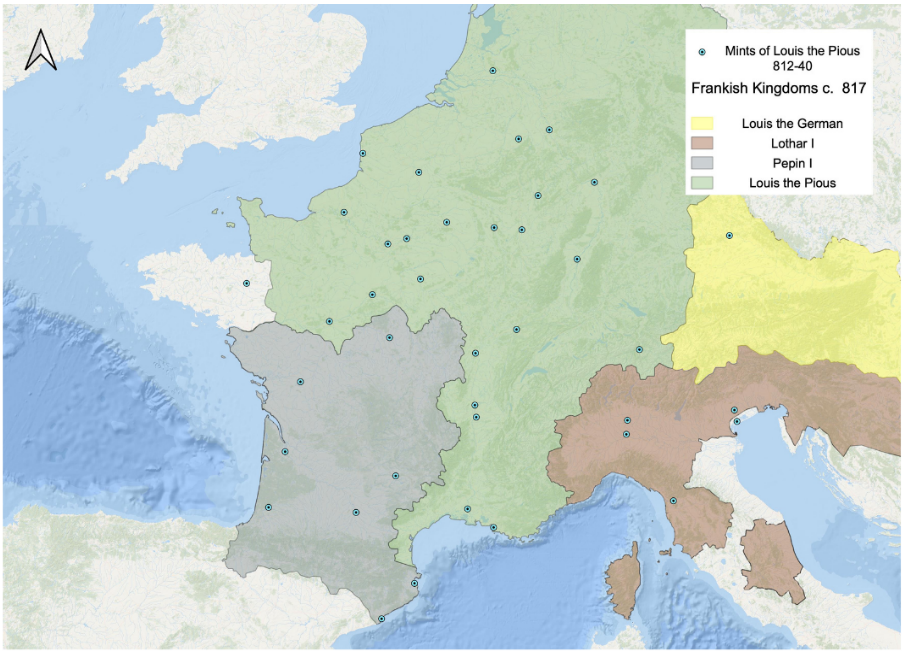
Mints of Louis the Pious
812-40
Frankish Kingdoms c. 817
Louis the German
Lothar I
Pepin I
Louis the Pious

Figure 30: Mints of Louis the Pious, 812-40
with Frankish kingdoms c. 817

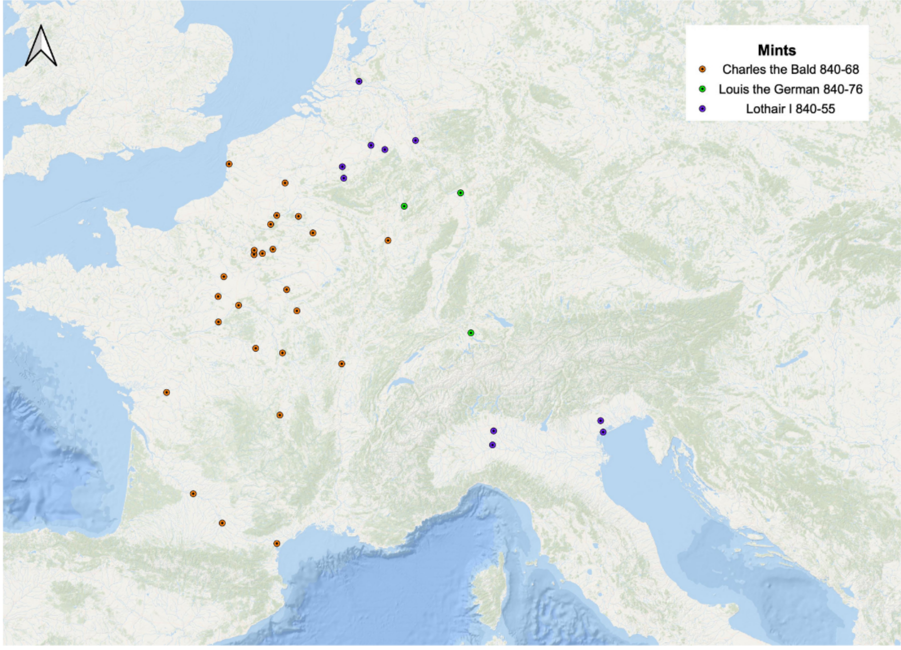
Mints
Charles the Bald 840-68
Louis the German 840-76
Lothair I 840-55

Figure 31: Mints of Charles the Bald 840-86, Louis the German 840-76, and Lothair I 840-55

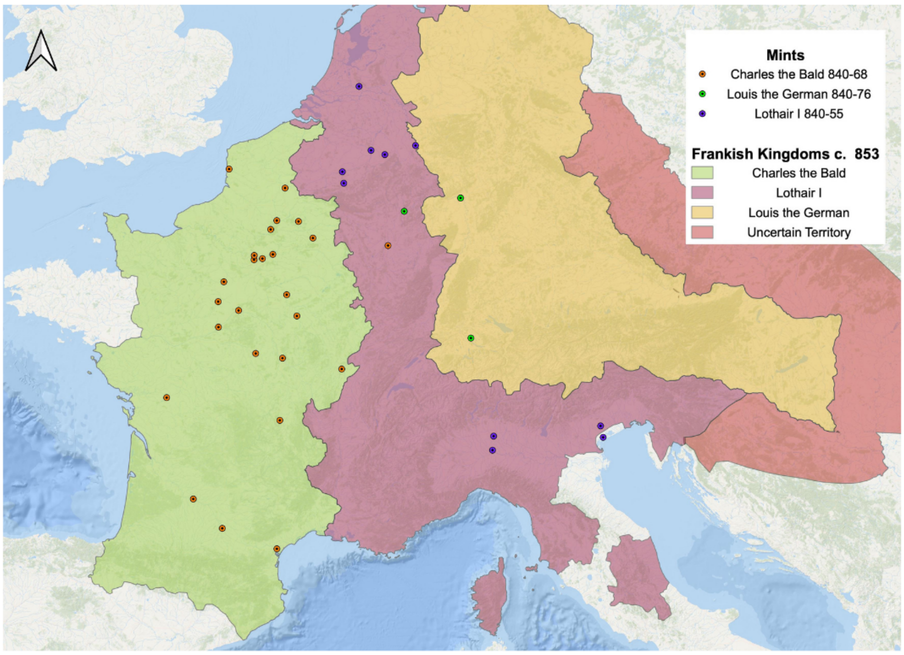
Mints
Charles the Bald 840-68
Louis the German 840-76
Lothair I 840-55
Frankish Kingdoms c. 853
Charles the Bald
Lothair I
Louis the German
Uncertain Territory

Figure 32: Mints of Charles the Bald 840-86, Louis the German 840-76, and Lothair I 840-55 with Frankish kingdoms c. 853

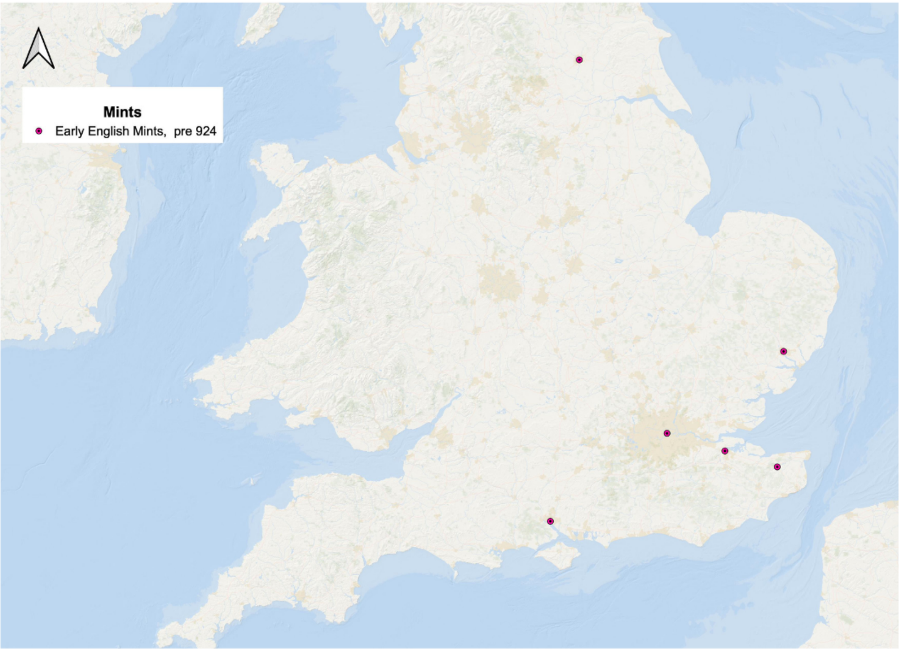
Mints
Early English Mints, pre 924

Figure 33: Early English mints pre-924

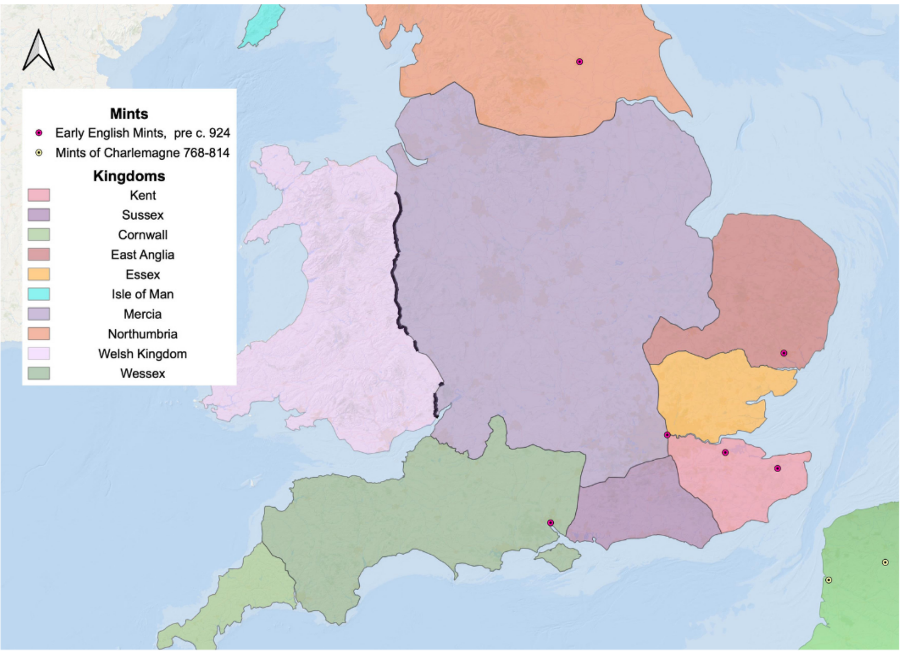
Mints
Early English Mints, pre c. 924
Mints of Charlemagne 768-814
Kingdoms
Kent
Sussex
Cornwall
East Anglia
Essex
Isle of Man
Mercia
Northumbria
Welsh Kingdom
Wessex

Figure 34: Early English mints pre-924
with Early English kingdoms c. 800

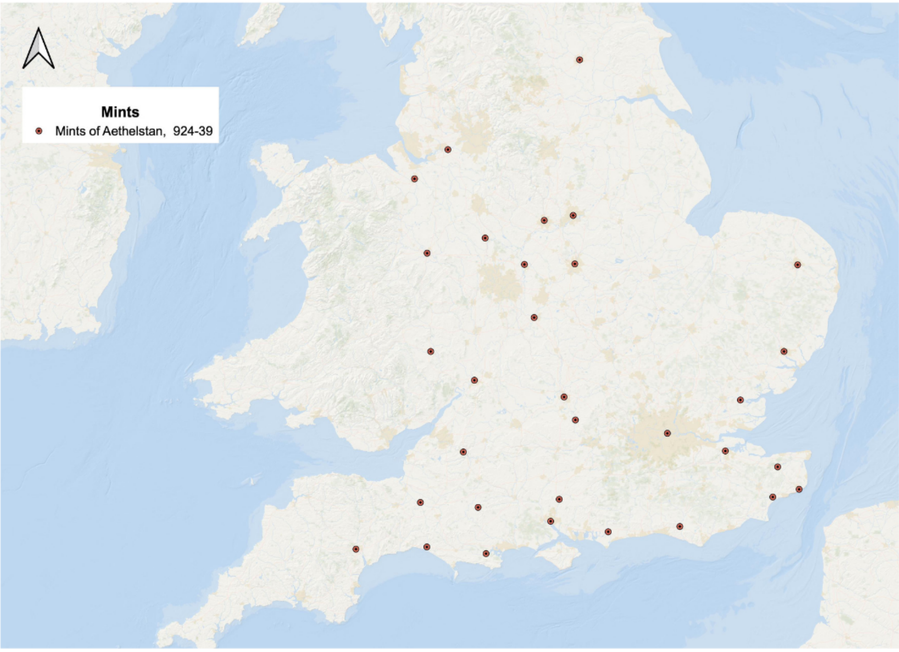
Mints
Mints of Aethelstan, 924-39

Figure 35: Mints of Aethelstan 924-39

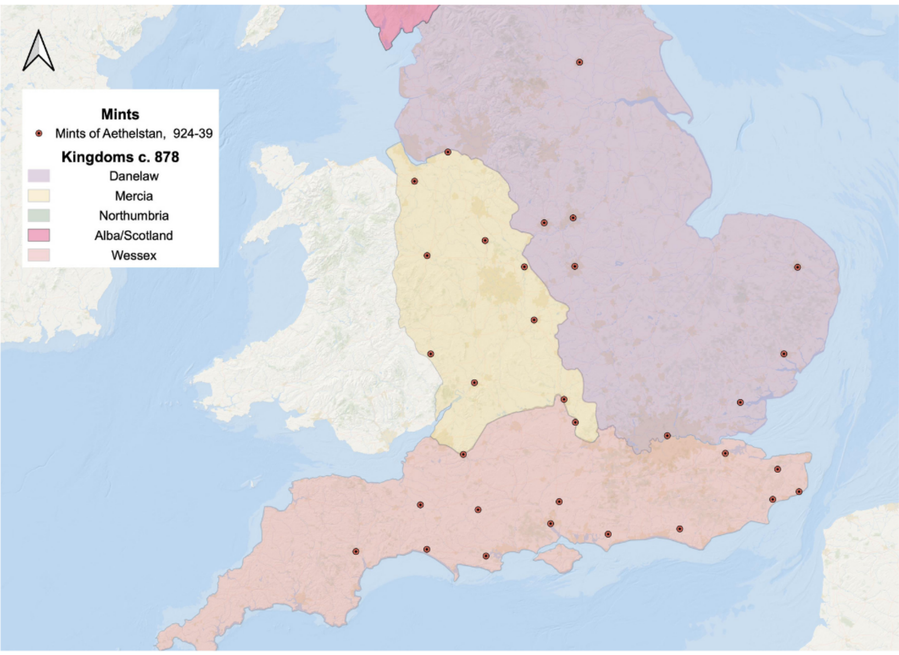
Mints
Mints of Aethelstan, 924-39
Kingdoms c. 878
Danelaw
Mercia
Northumbria
Alba/Scotland
Wessex

Figure 36: Mints of Aethelstan 924-39
with Early English kingdoms c. 878

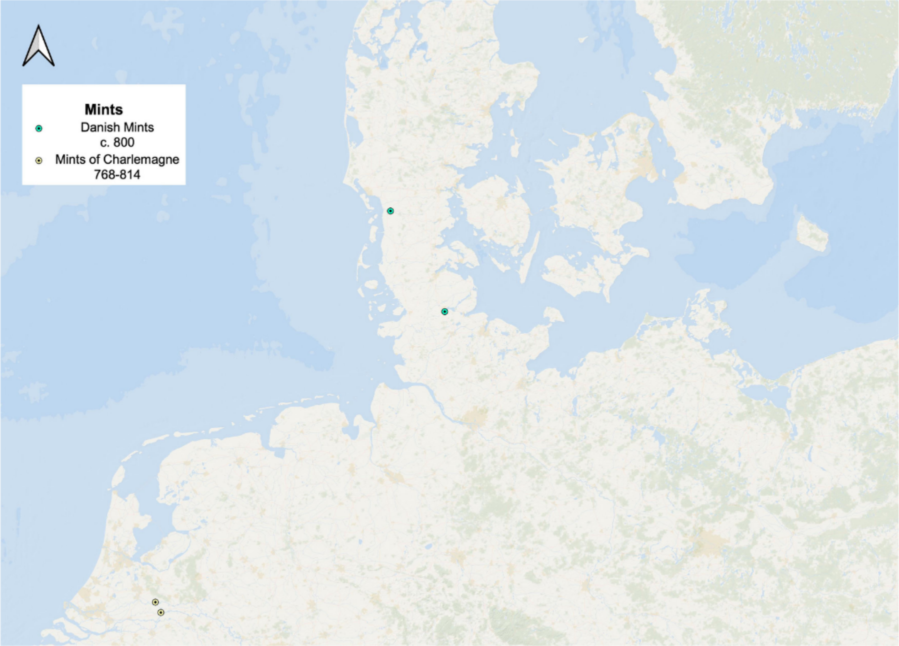
Mints
Danish Mints c. 800
Mints of Charlemagne 768-814

Figure 37: Danish mints c. 750-950

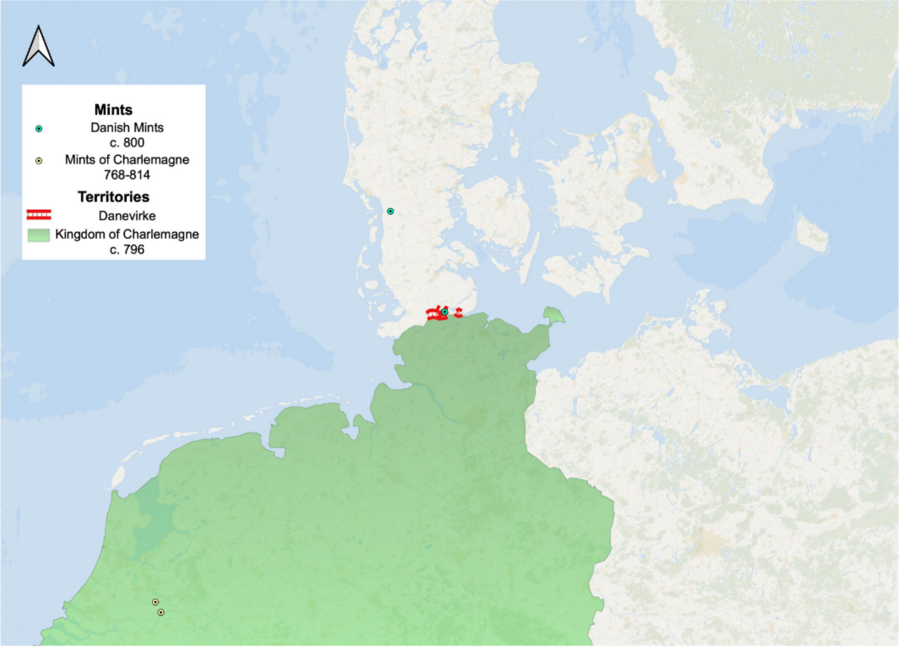
Mints
Danish Mints c. 800
Mints of Charlemagne 768-814
Territories
Danevirke
Kingdom of Charlemagne c. 796

Figure 38: Danish mints c. 750-950
with Danevirke and Frankish kingdom c. 796 and

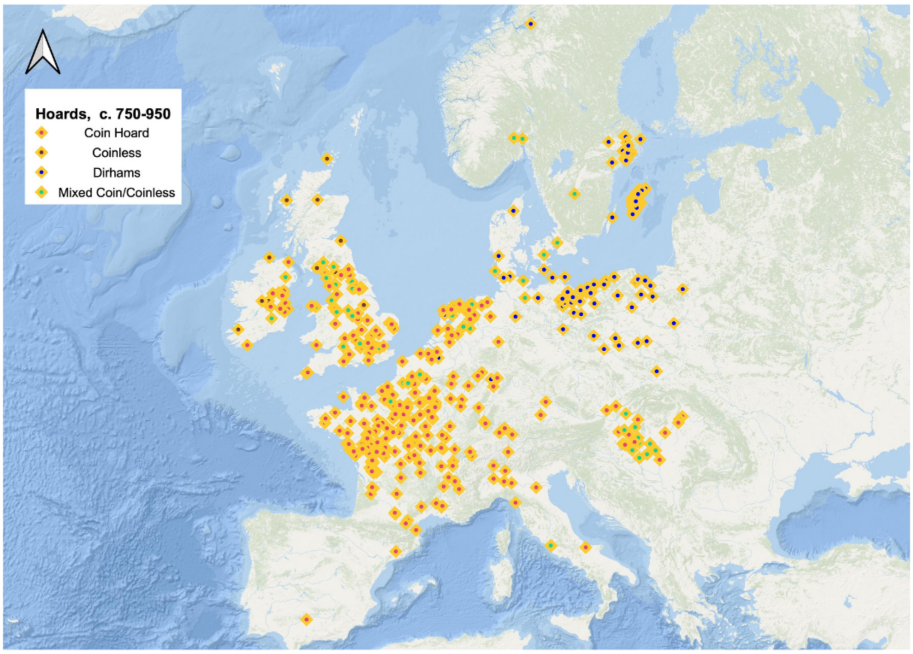
Hoards, c. 750-950
Coin Hoard
Coinless
Dirhams
Mixed Coin/Coinless

Figure 39: Hoards c. 750-950

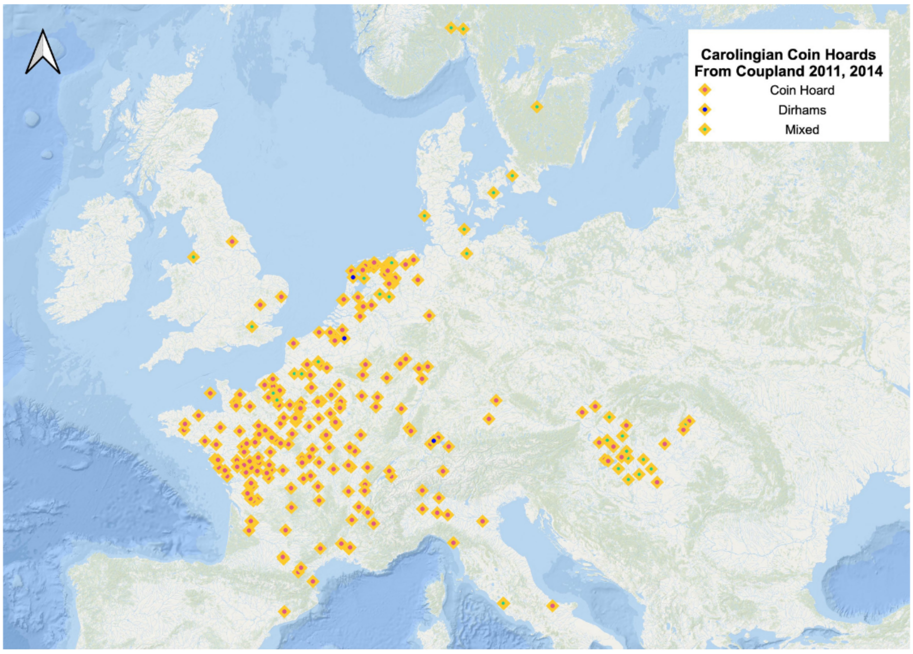
Carolingian Coin Hoards
From Coupland 2011, 2014
Coin Hoard
Dirhams
Mixed

Figure 40: Carolingian Hoards c. 750-950
from Coupland 2011, 2014

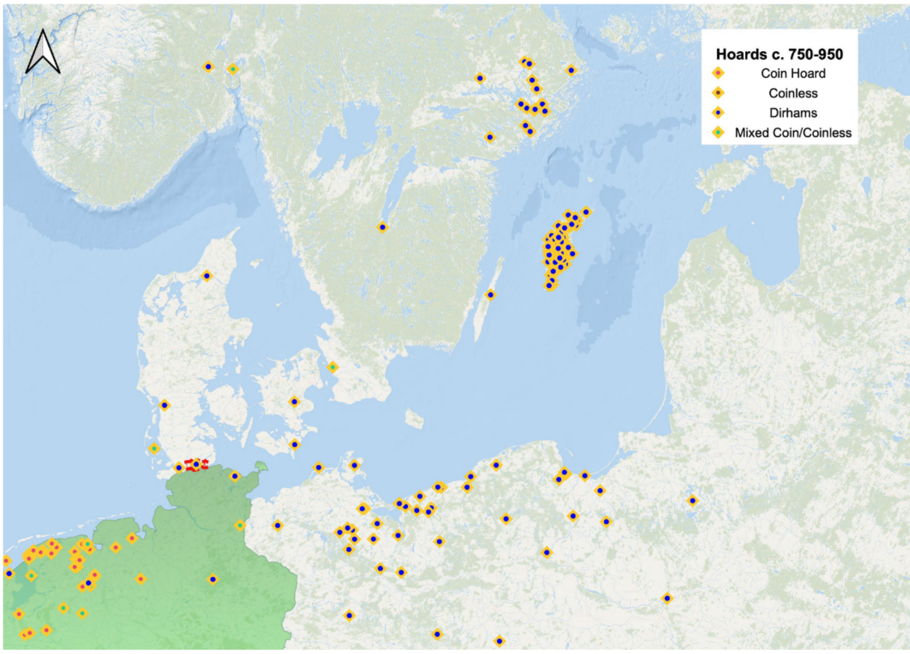
Hoards c. 750-950
Coin Hoard
Coinless
Dirhams
Mixed Coin/Coinless

Figure 41: Hoards c. 750-950, Baltic Region

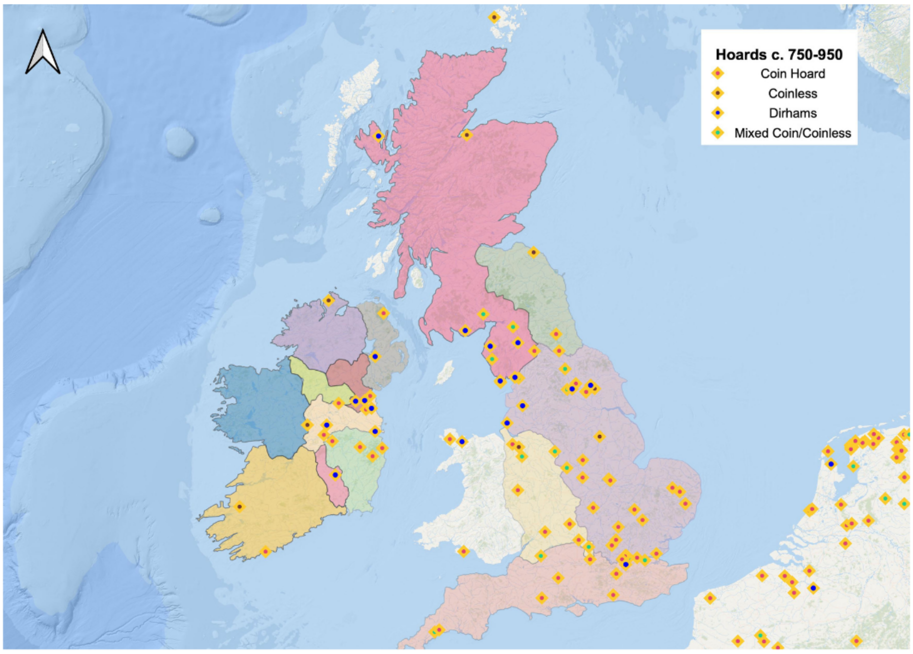
Hoards c. 750-950
Coin Hoard
Coinless
Dirhams
Mixed Coin/Coinless

Figure 42: Hoards c. 750-950, Britain and Ireland

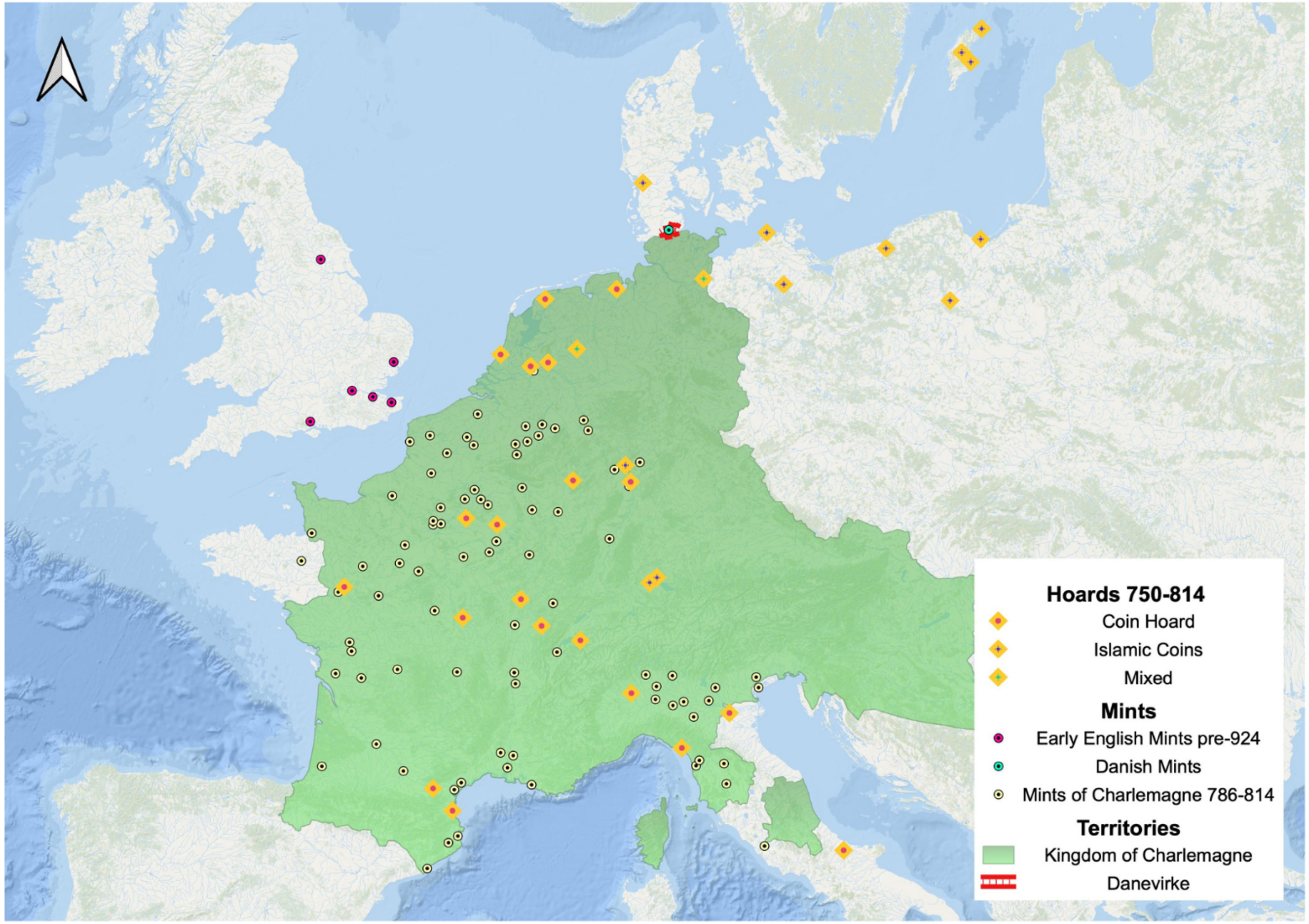
Hoards 750-814
Coin Hoard
Islamic Coins
Mixed
Mints
Early English Mints pre-924
Danish Mints
Mints of Charlemagne 786-814
Territories
Kingdom of Charlemagne
Danevirke

Figure 43: Hoards and Mints c. 750-814

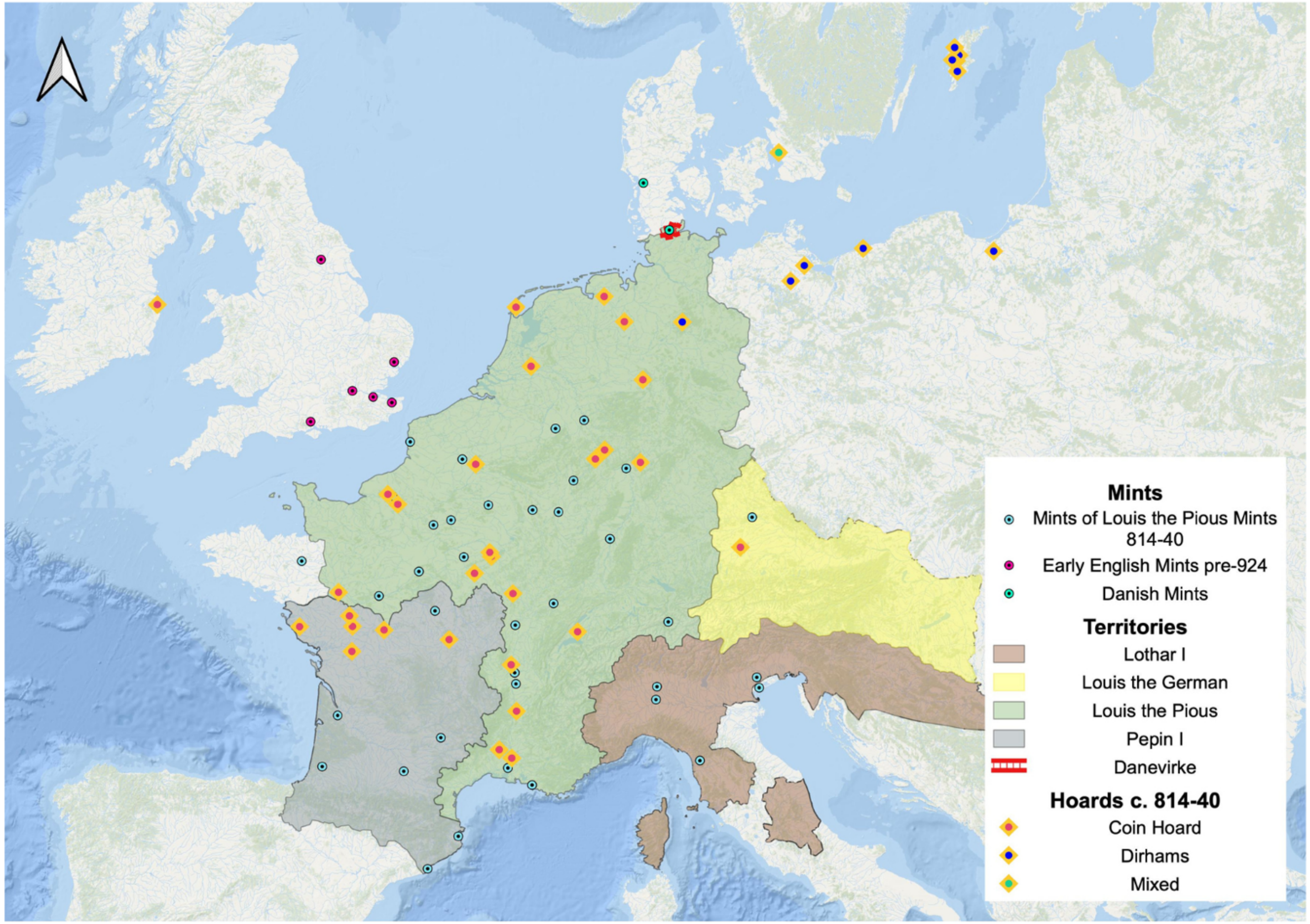
Mints
Mints of Louis the Pious Mints 814-40
Early English Mints pre-924
Danish Mints
Territories
Lothar I
Louis the German
Louis the Pious
Pepin I
Danevirke
Hoards c. 814-40
Coin Hoard
Dirhams
Mixed

Figure 44: Hoards and Mints c. 814-40

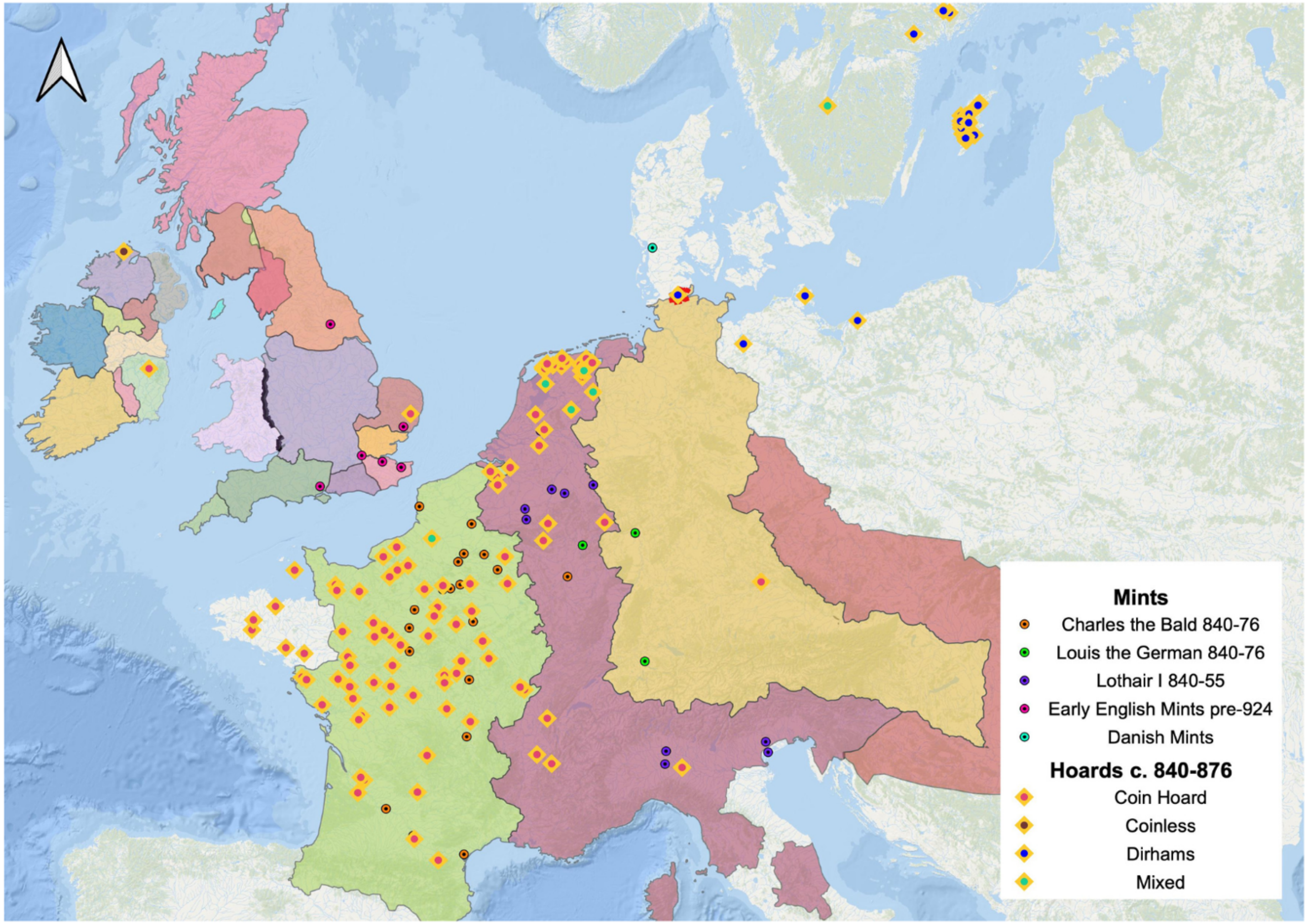
Mints
Charles the Bald 840-76
Louis the German 840-76
Lothair I 840-55
Early English Mints pre-924
Danish Mints
Hoards c. 840-876
Coin Hoard
Coinless
Dirhams
Mixed

Figure 45: Hoards and Mints c. 840-76

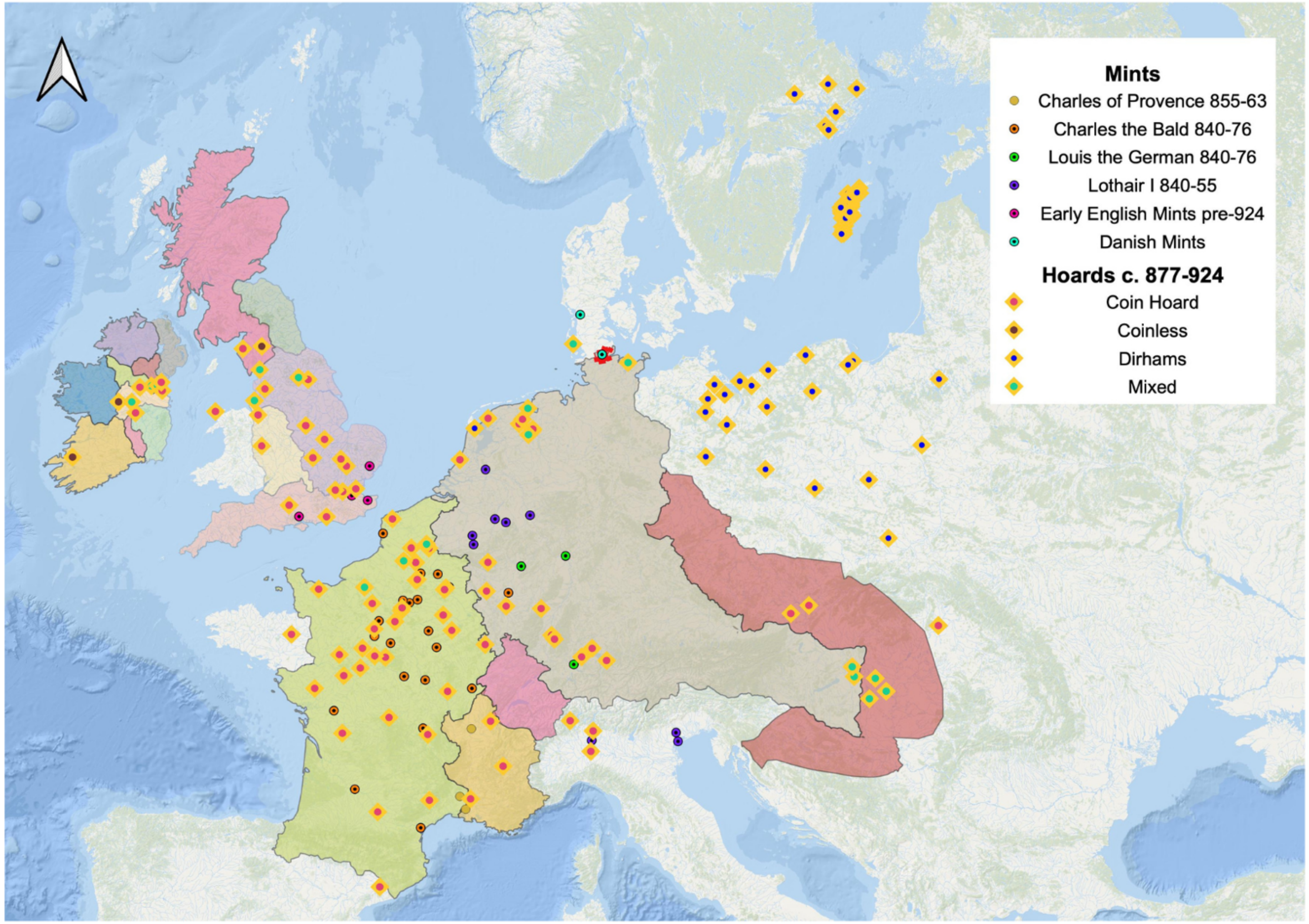
Mints
Charles of Provence 855-63
Charles the Bald 840-76
Louis the German 840-76
Lothair I 840-55
Early English Mints pre-924
Danish Mints
Hoards c. 877-924
Coin Hoard
Coinless
Dirhams
Mixed

Figure 46: Hoards and Mints c. 877-924

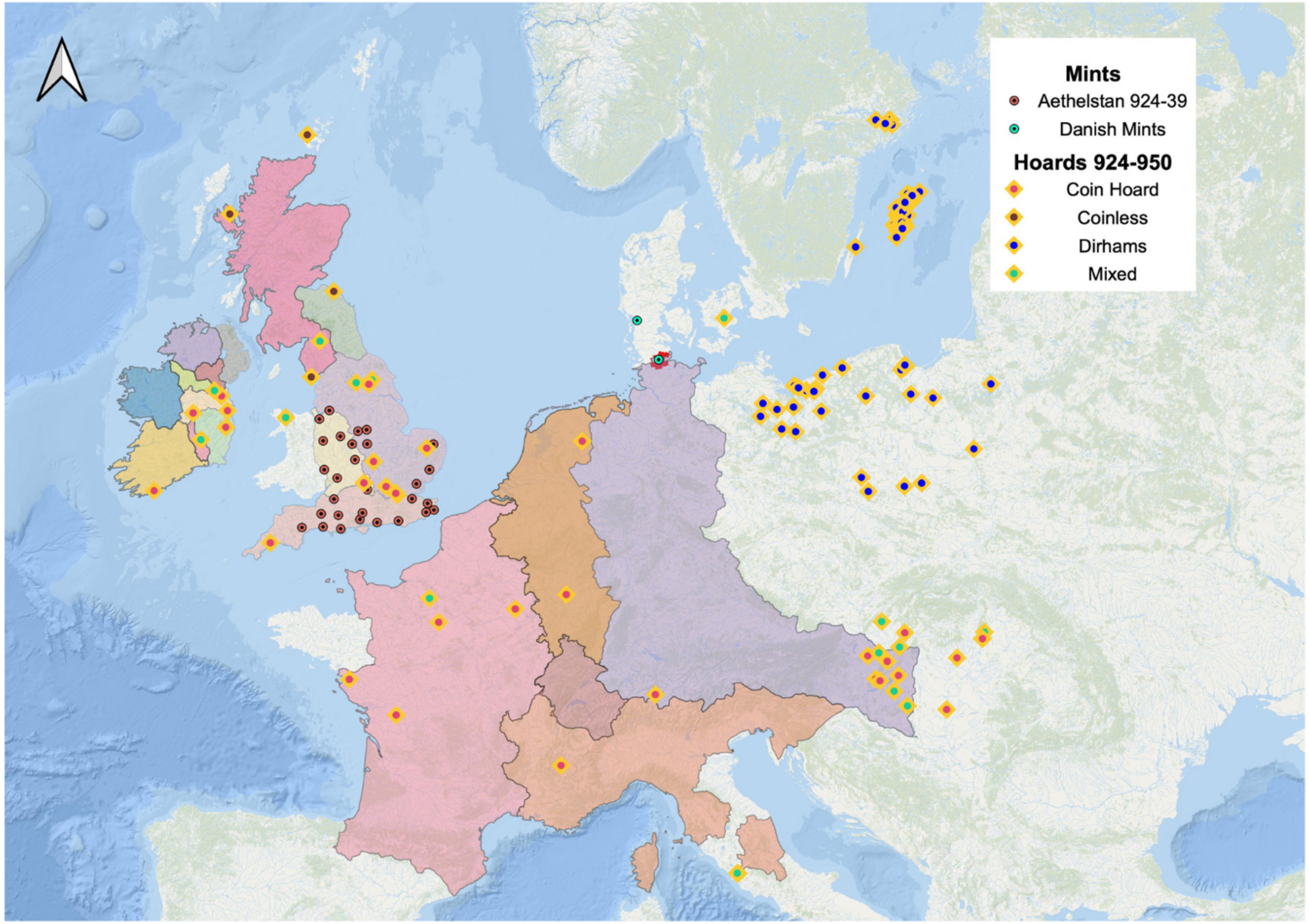
Mints
Aethelstan 924-39
Danish Mints
Hoards 924-950
Coin Hoard
Coinless
Dirhams
Mixed

Figure 47: Hoards and Mints c. 924-50

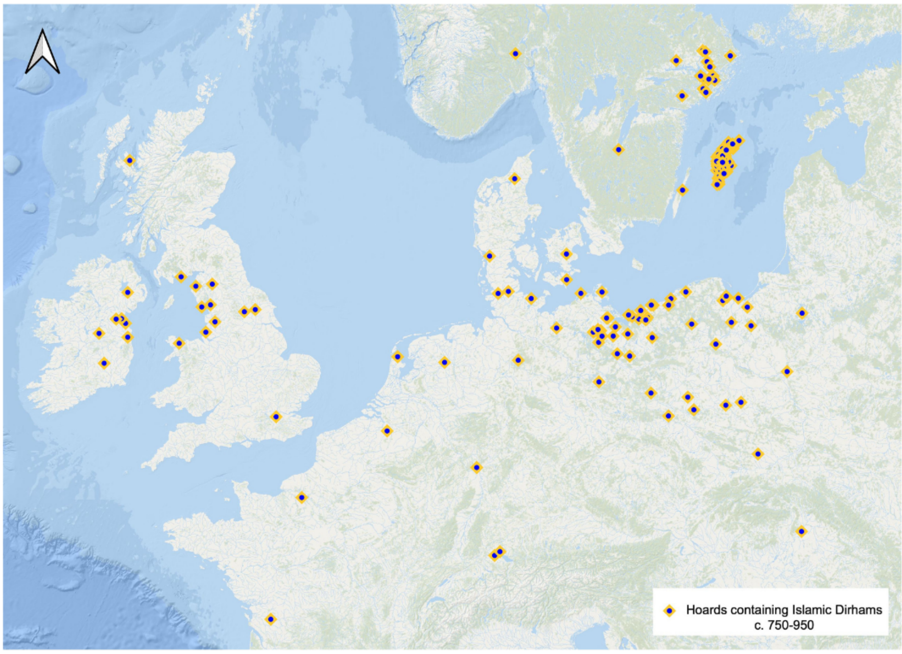
Hoards containing Islamic Dirhams
c. 750-950

Figure 48: Hoards containing Islamic Dirhams c. 750-950

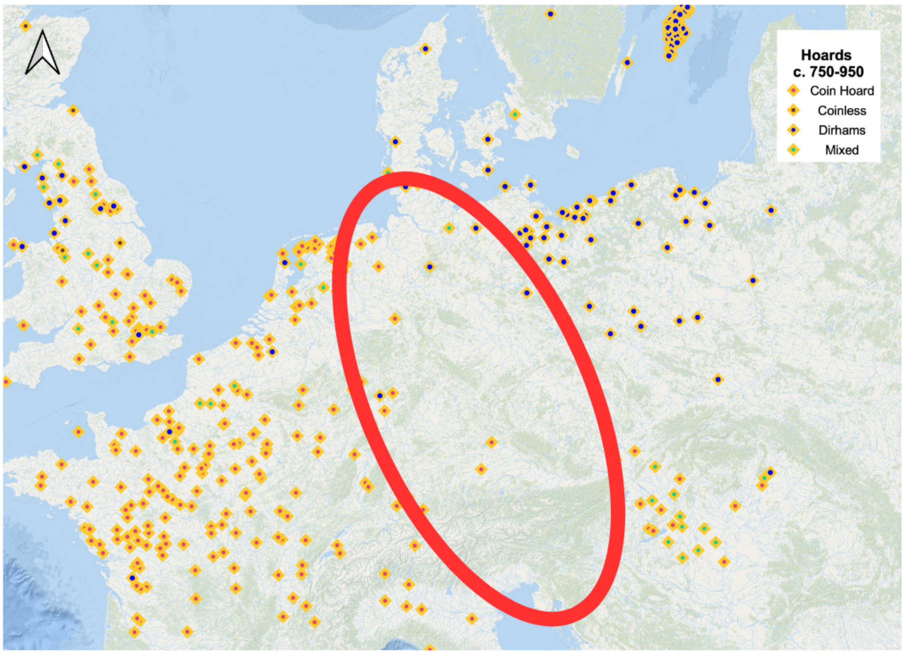
Hoards
c. 750-950
Coin Hoard
Coinless
Dirhams
Mixed

Figure 49: Hoards c. 750-950, Silver Curtain highlighted

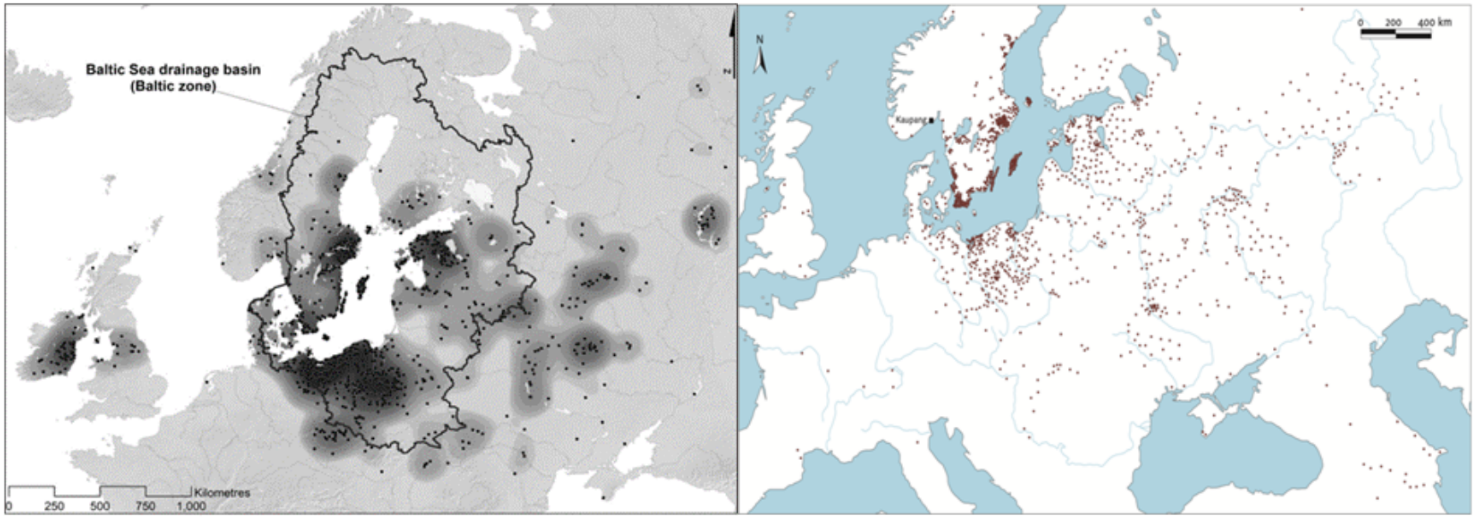
Baltic Sea drainage basin
(Baltic zone)
N
0
250
500
750
1,000
Kilometres
N
Kaupang
0
200
400 km

Figure 50: A) Dirham Distribution (Kilger, 2007); B) Dirham distribution (Gruszeczyński, 2019)

Chapter 4: Burial Evidence

4.I Introduction

This chapter seeks to analyze Norse burials in order to conclude whether they provide independent support for the distribution of Norse activity. Specifically, the dataset will focus on burials containing swords/axes or oval brooches. While this inevitably excludes known Norse burials, by identifying examples using the stated criteria, clear distribution patterns of early Viking Age life and death emerge across Atlantic Europe.

Burials from the early Viking Age are one of the most identifiable archaeological markers of the Norse presence throughout Atlantic Europe because of their distinct Otherness. By the beginning of the ninth century Ireland, Britain, and the Frankish kingdoms interred their dead using Christian burial practices, which are recognizable for their simplicity: orientated east to west and wrapped only in a shroud without accompanying grave goods. In comparison, the pagan peoples of Atlantic Europe, namely those from Scandinavia and the Norse diaspora, displayed varying levels of ritual and consumption that inevitably left identifiable cultural markers. Judith Jesch calls the practice of accompanied burials a “boon to the archaeologist,” because the accompanying grave goods provide a wealth of information regarding the period and the peoples that inhabited it. Furthermore, despite regional differences, Scandinavian graves are similar enough in character and typology that archaeologists can identify them “in places as far apart as Greenland and Russia.”[336]

However, despite this apparent ease in identification, there are no clear standards for Norse funerary practices.[337] Johan Callmer has previously demonstrated that villages, farmsteads, and individuals throughout Scandinavia buried their dead according to broad local variations. Norse burials followed patterns of both cremation and inhumation, but the deposition details allowed for a variety of experiences.[338] There are further “epistemological difficulties” associated with the identification of pagan graves, as opposed to Christian ones.[339] Where Christian burials orient body position east-west, Else Roesdahl has pointed out that pre-Christian Scandinavian burials cannot exclude an east-west orientation as well.[340] Similarly, inhumations in flexed positions likely suggest pagan burial customs, but this relates to an absence of evidence for flexed burial customs amongst early medieval Christians. Furthermore, while the presence of grave-goods likely implies that a burial is pagan, an absence of grave-goods is not indicative of a Christian, and therefore, non-Norse, burial.[341] The lack of positive evidence is only that: a null indicator, and archaeologists therefore rely on a flawed system of assumption that burials containing grave-goods are customary of Norse traditions, while burials lacking grave-goods are automatically assumed to be Christian, and therefore non-Norse.

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[336] Judith Jesch, *Women in the Viking Age* (Woodbridge: The Boydell Press, 1991), 12.
[337] Sverre Bagge, "Den politiske ideologi i Kongespeilet" (Thesis (doctoral) _ Universitetet i Bergen, 1980., [S. Bagge], 1979).
[338] J. Callmer, "Territory and dominion in the Late Iron Age in southern Scandinavia," in *Regions and Reflections: In Honour of Märta Strömberg*, ed. K. Jennbert et al. (Lund: Almqvist & Wiksell International, 1991).
[339] J. H. Barrett, "Christian and pagan practice during the conversion of Viking Age Orkney and Shetland," in *The Cross Goes North*, ed. M. Carver (Woodbridge: Boydell Press, 2003), 212.
[340] Else Roesdahl, *The Vikings*, Revised and updated edition. ed. (London: Allen Lane, 1991), 3.
[341] Barrett, "Christian and pagan practice during the conversion of Viking Age Orkney and Shetland," 212.

In this way, Norse burials become not just a category, but an interpretation as well. Frida Espolin Norstein suggests in her doctoral thesis: “there is often an implicit – and at times explicit – creation of the dichotomies Scandinavian/local and pagan/Christian.”[342] That is to say, archaeologists rely on indications that the Norse burials in Atlantic Europe do not follow the patterns of the indigenous Christians, however, non-Christian burials practices are archaeologically visible and therefore allow for simpler identification practices. A general assumption persists that the majority of the Norse were not of Christian affiliation prior to settlement outside of Scandinavia, although there are suggestions that the Norse converted to Christianity within two to three generations of settlement, particularly within the Danelaw where Christianization appears to have taken hold quite quickly.[343] That would suggest that amongst the diaspora pagan burials, complete with grave goods, disappeared from the collective archaeological profile by the middle of the tenth century at the latest, thereby losing an archaeological record of culturally Norse burials. Indeed, of the approximately 130 ‘pagan’ graves of Norse style known from northern and western Scotland, the great majority of them come from the mid-ninth to the mid-tenth century.[344] Conversion was likely a long and complicated process, and the Christianization of the Norse and the changing of long-held traditions likely took even longer still, but burial patterns swiftly moved from furnished to un-furnished, making the Christian Norse invisible.[345]

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[342] Frida Espolin Norstein, "Processing death: Oval brooches and Viking graves in Britain, Ireland and Iceland" (Doctoral Gothenburg University, 2020), 7.

[343] J. D. Richards, "Pagans and Christians at the frontier: Viking burial in the Danelaw," in *The Cross Goes North: Processes of Conversion in Northern Europe*, ed. M. Carver (Woodbridge: Boydell Press, 2003), 383.

[344] Barrett, "Christian and pagan practice during the conversion of Viking Age Orkney and Shetland," 219.; James Graham-Campbell and Colleen E. Batey, *Vikings in Scotland: An Archaeological Survey* (Edinburgh University Press, 1998), 47. http://www.jstor.org/stable/10.3366/j.ctvxcrj4x.

Central to discussions of categorization and identity, gender is often identified through burial customs. In 1984, Sellevold et al. conducted a study of 320 Viking Age individuals found within Denmark.[346] 85 remains were identified as male, 73 as female, and the remaining 162 skeletons were of undetermined gender. The team was able to provide evidence for a high correlation between sex and the objects buried with them. Men were often accompanied by swords and/or spears, axes, spurs, riding equipment, blacksmith's tools, and penannular brooches. Women went to their graves with oval brooches (often in pairs), disc brooches, trefoil buckles, arm rings, necklaces, caskets, and spindle whorls. Buckles, combs, clay pots, wooden vessels, knives, whetstones, coins, and beads were commonly found in both graves. It should also be noted that Norstein's thesis suggests that while brooches are indicative of female burials, weapons have been recovered in the graves of both genders.[347] Sellevold's study seems to confirm that the material possessions found in Viking Age burials help to signify that gendered roles were assigned to men and women during life. However, there are examples that serve as exceptions to the rule, and current studies are challenging whether the rules should stand as such. As recently as 2017, Charlotte Hedenstierna-Jonson used DNA to establish that grave Bj 581 in Birka, which had classically been used as an example of an “elaborate high-status male warrior grave,” was, in fact, female.[348] A similar mis-sexed grave has been identified in Åsnes, Norway, in which a female was buried with weaponry, including a sword, an axe, and spears: items completely un-related to prevailing perceptions of female gendering.[349]

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[345] Richards, "Pagans and Christians at the frontier," 383.; Lesley Abrams, "Conversion and Assimilation," in *Cultures in Contact: Scandinavian Settlement in England in the Ninth and Tenth Centuries*, ed. D. M. Hadley and J. D. Richards (Turnhout: Brepols, 2000).; Lesley Abrams, "The Conversion of the Danelaw" (paper presented at the Vikings and the Danelaw: Select Papers from the Proceedings of the Thirteenth Viking Congress, Nottingham and New York, 1997).

[346] Berit Jansen Sellevold, Ulla Lund Hansen, and Jørgen Balslev Jørgensen, *Iron Age Man in Denmark: Prehistoric Man in Denmark, Vol. III*, Det Kongelige Nordiske Oldskriftselskab, (København, 1984).

[347] Norstein, "Processing death."

The chapter begins with an overview of Norse burial within Scandinavia and addresses why it is difficult to identify the exact geographic origins of the migrants who were buried in Atlantic Europe. This is followed by a survey of the Norse burials in Ireland, England, Scotland, the Isle of Man, France, and Iceland. The examination of burials containing swords/axes and oval brooches seeks, in addition to an in-depth spatial analysis, to assess how graves could correlate to settlement patterns across the North and Irish Seas. It should be noted that Iceland’s inclusion is only made possible in this chapter due to its available contemporary material relating to Norse burials; neither written accounts nor silver hoards have been recovered from the early Viking Age. Moreover, Viking Age Iceland provides an unique example as a Norse colony in a previously unsettled land, and it furthermore has a genetically-proven profile of mixed ethnic identity.

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[348] C. Hedenstierna-Jonson et al., "A female Viking warrior confirmed by genomics," *Am J Phys Anthropol* 164, no. 4 (Dec 2017): 857, https://doi.org/10.1002/ajpa.23308, https://www.ncbi.nlm.nih.gov/pubmed/28884802.

[349] Per Hernæs, "C 22541 a-g. Et gammelt funn tolkes på ny," *Nicolay* 43 (1984): 31.

4.II Scandinavia

In comparison to the approximately 206 Norse burial sites and 765 burials that have been uncovered in Scotland, Ireland, England, and France, several thousand Viking Age graves have been recorded in Denmark, Norway, and Sweden. Because of the sheer number of Norse burials, it has proved difficult to conduct a statistical analysis that mirrors the criteria used for Norse burials outside of Scandinavia, i.e. the identification of swords/axes or oval brooches. As such, this section surveys general burial practices of Viking Age Scandinavia in order to explore how these customs transgressed borders and cultural contact in Atlantic Europe.

Within Denmark, inhumations are the predominant burial practice. Bodies were generally placed in a wooden coffin and deposited within a flat grave, while mound burials, cists with grave-cuts, and cremations were rare[350] Recovered inhumations tend to have few grave goods deposited along with the bodies. Female-gendered jewelry is more common than either weapons or iron tools, suggesting that women were more likely to be buried with grave goods than men. Jylland, Fyn, and Langeland all serve as regional exceptions to the rule: of the approximately 240 weapons and/or horse gear recovered from grave contexts in Denmark (including areas of historic Danish rule, including Schleswig and Skåne[351]

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[350] Angela Z. Redmond, *Viking Burial in the North of England: A Study of Contact, Interaction and Reaction between Scandinavian Migrants with Resident Groups, and the Effect of Immigration on Aspects of Cultural Continuity*, British Archaeological Reports, (Oxford: John and Erica Hedges Ltd., 2007), 9-10.; Klavs Randborg, *The Viking Age in Denmark: The Formation of a State*, New approaches in archaeology, (Duckworth, 1980), 122.

The most recent count of Viking Age burials found in Norway numbers around 8000, though this estimate has almost certainly risen since 2010.[352] In contrast to Denmark, both cremation and inhumations were popular burial practices. Cremation has been shown to be the predominant funerary practice in Sweden.[353] Angela Redmond cites the cremation cemetery at Helgö as her primary example for Swedish pagan burial practices, noting that 86.5% of cremations were carried out *in-situ,* at which point over two-thirds were then placed in urns, and rings with Thor's hammer pendants and non-burnt poultry bones and eggs were then placed inside the urns.[354] Cremations in Norway were often deposited beneath mounds or cairns with grave goods, which appear to have been deliberately damaged by fire. Moreover, a number of burial mounds have been found to not contain a body at all.[355] In contrast, inhumations are generally found in flat graves or in stone coffins, and the associated goods do not appear to have any deliberate damage done to them. In both instances, weapons, iron tools, weaving implements, and other domestic goods were frequently deposited with the dead.[356]

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[351] Anne Pedersen, "Weapons and Riding Gear in Burials - Evidence of military and social rank in 10th century Denmark?," in *Military Aspects of Scandinavian Society in a European Perspective, AD 1-1300: Papers from an International Research Seminar at the Danish National Museum, Copenhagen, 2-4 May 1996*, ed. Anne Nørgård Jørgensen and Birthe L. Clausen, The National Museum Studies in Archaeology & History (Copenhagen: PNM, 1997), 124.

[352] Frans-Arne Stylegar, "Hvorfor er det færre kvinne- en mannsgraver fra vikingtiden i Norge?," *Primitive Tider* 12 (2010): 71.

[353] Neil Price, "The Scandinavian Landscape. The People and the Environment," in *Vikings - The North Atlantic Saga*, ed. W.W. Fitzhugh and E.I. Ward (Washington and London: Smithsonian Institute in association with the National Museum of Natural History, 2000), 39.

[354] Redmond, *Viking Burial in the North of England*, 11.; A-S Gräslund, *Birka IV. The Burial Customs. A study of the Graves on Björkö*, Kungl Vitterhets Historie Och Antikvitets Akademien, (Stockholm: Ailmqvist & Wiksell International, 1980), 51; 54.

[355] Marianne Moen, "Challenging Gender - a reconsideration of gender in the Viking Age using the mortuary landscape" (PhD University of Oslo, 2019), 114, http://urn.nb.no/URN:NBN:no-85086.; It should be acknowledged that a missing body may be accounted to archaeological oversight, though it is likely that many mounds do, indeed, lack burials.

A 2003 study suggests that Viking Age burials in Norway are found at a ratio of 5:1 male to female burials.[357] Marienne Moen has countered this unverified estimate regarding a “supposed ‘lack of women’” in three points. First, burials recovered from cemeteries reveal a ratio closer to 50/50 for male and female burials (as opposed to burials recovered as single or double burials). Second, it is problematic that female burials are often determined solely through the presence of oval brooches, especially in the context of poor skeletal preservation in the Norwegian soil (whereas Sweden and Denmark typically allow for greater preservation of organic remains). Third, this “lack of women” is only present in Norway, whereas Sweden and Denmark do not reflect an equal absence of female burials.[358] The problems addressed by Moen are important to the discussion of burials – or the absence of burials – within Ireland and Britain later in this chapter. For now, it important only to note that the inability to identify female burials may be due to burials customs, in which women are less likely to be buried with gender-identifying furnishings. Clusters of ninth-century Insular metalwork from Scotland and Ireland have been recovered from burials in five western Norwegian areas: Vestfold, Rogaland, Sogn, Møre and Trøndelag. With the earliest of these finds recovered from Sogn and Møre, Dagfinn Skre suggests that Scandinavian westward expansion began here before rapidly radiating outward.[359] Furthermore, Egon Wamers has suggested that "the rich, insular loot in western Norway indicates an immense transfer of goods, people, and ideas in both directions."[360] This transfer of people and ideas almost certainly references shifts in religious and, therefore, burials practices. However, a shift in burial practices in ninth-century Scandinavia has not yet been detected following interaction with cultural contact abroad. It is clear that neither regional nor national differences can reveal a distinct common pattern of burial practice within Viking Age Atlantic Scandinavia, nor are numbers readily available pertaining to inclusions of swords/axes and oval brooches. The act of grave good deposition appears to be the only common factor across the regions, and even this has been proven to be an inconsistent practice. For example, areas of Denmark appear to be poor in grave good depositions, suggesting that burials of the Dano-Norse diaspora abroad may be invisible to the record due to a similar lack of accompanying grave goods. Additionally, there have been at least 1500 female brooches recovered from Sweden, a similar number recovered from Norway, but "considerably fewer from Denmark."[361] This would suggest that areas of Dano-Norse settlement would provide less evidence for grave-good deposition, but it is impossible to prove absence of evidence versus evidence of absence.

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[356] Redmond, *Viking Burial in the North of England*, 10.; Liv Helga Dommasnes, "Late Iron Age in Western Norway. Female Roles and Ranks as Deduced from an Analysis of Burial Customs," *Norwegian Archaeological Review* 15, 1-2 (1982).

[357] Bergljot Solberg, *Jernalderen i Norge, 500 før Kristus til 1030 etter Kristus* (Oslo: Cappelen akademisk forlag, 2003), 169.

[358] Moen, "Challenging Gender - a reconsideration of gender in the Viking Age using the mortuary landscape," 118-19.

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[359] Dagfinn Skre, "From Kaupang and Avaldsnes to the Irish Sea," in *Clerics, kings and vikings: essays on medieval Ireland in honour of Donnchadh Ó Corráin*, ed. Emer Purcell (Dublin: Four Courts Press, 2015), 245.

[360] Egon Wamers, "Insular Finds in Viking Age Scandinavia and the State Formation of Norway," in *Ireland and Scandinavia in the Early Viking Age*, ed. Howard B. Clarke, Maíre Ní Mhaonaigh, and Raghnall Ó Floinn (Dublin: Four Courts Press, 1998), 71.

[361] Norstein, "Processing death," 41.; see also: Kershaw, *Viking identities: Scandinavian jewellery in England*, 227.; Ingmar Jansson, *Ovala spännbucklor: En studie av vikingatida standardsmycken med utgångspunkt från Björkö-fynden*, vol. 7, Archaeological Studies /Uppsala University, Institute of North European Archaeology, (Uppsala: Institutionen för arkeologi, 1985).

Furthermore, information regarding health and wealth patterns during the Viking Age was revealed when Sellevold’s team compared burial practices across chronological periods. The study suggests that the average number of grave goods is larger for both men and women who measured above average in height. Unfortunately, the richest graves did not have skeletons that were well-preserved enough to measure, and in some cases, skeletal remains were missing completely. A male skeleton at Jelling is the only exception, The individual measures 175cm, which is 3cm taller than the Viking Age male average.[362] This signifies that height is in some way connected to social position.[363] In summary, it appears that those found with grave goods were likely members of a wealthier and/or powerful class within society.

4.III Atlantic Europe

Norse burials of the Viking Age are identifiable from native (read Christian) Atlantic European burials due to deposition orientation, body position, and the presence of typologically identified grave goods. However, the Norse buried outside of Scandinavia inevitably mingled with different cultures, who expressed themselves through distinct behaviors, ideologies, and materialisms.[364] As such, the Norse burials of Atlantic Europe possess a blended/hybrid identity. The question of identity hangs heavy over this chapter, inclusive of gender and sex, national and regional backgrounds and loyalties, and ideas of temporary versus permanent settlement across foreign landscapes.

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[362] Sellevold, Hansen, and Jørgensen, *Iron Age Man in Denmark: Prehistoric Man in Denmark, Vol. III*, 231.

[363] J. Steffensen, "Stature as a criterion of the nutritional level of Viking Age Iceland" (Third Viking Congress, Reykjavík, 1958).

[364] Zanette Tsigaridas Glørstad, "Homeland - Strange Land -New Land. Material and Theoretical Aspects of Defining Norse identity in the Viking Age," in *Celtic-Norse Relationships in the Irish Sea in the Middle Ages 800-1200*, ed. Jón Viðar Sigurðsson and Timothy Bolton (Leiden: Brill, 2014), 152.

The record is further muddied by issues of identification that arise from the poor records kept by antiquarians who made note of Norse burials uncovered between the seventeenth and early twentieth century. In these records, serious errors and/or absences are obvious, including such factors as whether human remains were recovered alongside depositions such as swords or brooches, let alone position or orientation of recovered skeletal remains, or the context in which they were deposited. As such, current surveys are woefully incomplete, though modern scholars are quick to acknowledge gaps in the record.

The dating for the Norse burials shifts forward slightly from that of the hoards. Because no graves have been found that can be identified prior to the ninth century, the chronology for burials begins c. 800. Furthermore, current dating techniques utilize typology instead of scientific analysis, and many objects can only be identified to within a century. Therefore, the period for the burial study stretches to c. 1000.

A databank for all Norse burials within Atlantic Europe was created, inclusive of England, Ireland, Scotland, the Isle of Man, France, and Iceland. For ease of analysis, several of the columns utilize a true or false ("T/F") system wherein "1" indicates positive evidence and "0" signals either negative and/or lack of evidence. The databank (see Appendix) is organized thus: 'ID,' 'Country,' 'SiteName,' 'Lat' (latitude), 'Lon' (longitude), 'Cemetery_T/F', 'NumIndividuals_Min' (minimum number of individuals identified at burial site), 'HumanRemains_T/F,' 'Cremation_T/F,' 'Sword/Axe_T/F,' 'Brooch_T/F,' 'Horse_T/F,' ‘Definite/Probably/Possible_T/F’ (in which the inclusion of a sword or axe or oval brooches marks the burial as definite in the context of this study), ‘GraveGoods.’

The combined total of Norse burials exclusive of Iceland accounts for a minimum of 765 individuals across 206 sites. Including Iceland, these totals rise to 1011 individuals across 452 burial sites. Classifying the depositions of swords or axes, and brooches is intended to identify patterns of Norse activity across Atlantic Europe.

In order to avoid typing by sex, the burials were catalogued to identify depositions of swords and/or brooches. Swords are generally considered indicative of male burial, and with a total of 100 burials accompanied by swords (80 exclusive of Iceland), this allows for a reliable analysis of deposition patterns. Similarly, brooches are considered to be markers of female burial. Exclusive of Iceland, 60 burials have been found to be accompanied by brooches, with an additional 30 brooch finds from Iceland.

Horses are examined because of their prevalence as grave good depositions within Icelandic pagan burials. Within Iceland, 104 burials have been found buried with horse bones. While this phenomenon will be discussed in greater detail below (4.III.1), it appears that only 9 Atlantic European burials outside of Iceland also contain horse depositions. As such, unfortunately, identifying horses across Atlantic European burials adds little insight into patterns of pagan burials as a whole.

This section begins with a review of the Viking Age burials recorded in Ireland, followed by Scotland, England, Isle of Man, and the burials in Brittany and Pîtres in France. A survey of Icelandic Norse burials closes the chapter, because the island serves as a unique case study, in that the individuals represent a hybrid identity of Norse and Insular settlers, yet with higher Norse hierarchy so that visible practices are primarily Norse. At the same time, the empty landscape means that the burials of these settlers do not compete with native practices.

4.III.1. Ireland

In total, there are at least 103 individuals associated with the 64 sites, of which 35 sites contain human remains and two are associated with cremations. Within the criteria of the project, there are 86 individuals who are associated with 50 burial sites. 43 sites contain a weapon (sword and/or axe), while 14 sites contained oval brooches, and six sites contained both (see Figure 54 for visual representations.)

The source data is pulled exclusively from Stephen H. Harrison and Raghnall Ó Floinn's compendium *Viking Graves and Grave-Goods in Ireland*. The graves classified by the authors are indicative of 401 artefacts dated c. 750-1000, and "are either definitely or probably from Viking graves in Ireland."[365] The authors have furthermore rejected materials previously associated with Norse graves, which they believe were incorrectly classified or attributed to burials of Norse character, thereby cataloguing the definitive list of Norse burials in Ireland.[366] Harrison has thus suggested that there are “a grand total of *approximately* 71-76 burials for the island as a whole.”[367]

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[365] Stephen H. Harrison and Raghnall Ó Floinn, *Viking Graves and Grave-Goods in Ireland*, vol. 11, Medieval Dublin Excavations 1962-81, (Dublin: National Museum of Ireland, 2014), 301.

[366] *Ibid.* These artefacts have been included in the appendices. "Appendix 1 lists those Irish sites and associated artefacts that have been rejected. Appendix 2 describes a small group of artefacts in the NMI that can now be shown to have been found in Scandinavia. Appendix 3 lists a small group of Viking Age artefacts that, despite having been interpreted as grave-goods in the past, can now be shown to come from non-funerary contexts. Finally, appendix 4 deals with a number of artefacts from Kilmainham that formed part of larger acquisition groups but are themselves clearly post-Viking Age in date" (301).

Of the burials identified by Harrison and Ó Floinn, 64 burial sites were able to used for this study; only miscellaneous grave goods for which provenance could not be identified were excluded. Additionally, some burials included in their compendium did not supply sufficient evidence to suggest definitively that an individual or individuals were buried with the artefacts found.

The spatial distribution places the majority of burials along the east coast of Ireland, as can be seen in Figure 59, with Dublin and its surrounding areas hosting the largest proportions. In his own analysis, Harrison has illustrated that roughly 80% of Norse burials occurred within five kilometers of Dublin’s city center.[368] This is even more significant when considering that 75% of these burials were recovered from one of two cemeteries at Kilmainham and Islandbridge. Outside this central eastern bubble, burials are decidedly sparser. Evidence for Norse burials in the other major recorded *longphuirt* is virtually nonexistent. No burials have been recorded near Cork or Limerick, one burial has been recovered from Woodstown in Co. Waterford, one burial has been recovered from Arklow in Co. Wicklow. Three burial sites have been recovered from the west coast, which indicates that the Norse were active in these areas, though clearly not to the same extent as within the Irish Sea area. No boat graves have thus far been discovered in Ireland; their absence in the record may be due to a lack of recognition or because they have yet to be discovered, or simply because the Norse who settled in Ireland did not prescribe to boat burials as a funerary practice.

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[367] Stephen H. Harrison, "Viking Graves and Grave-goods in Ireland," in *The Vikings in Ireland*, ed. A. S. Larsen (Roskilde: 2001), 63.

[368] Harrison, "Viking Graves and Grave-goods in Ireland," 63.

4.III.1.i A note on Irish cremation practices

There are only two suspected Norse cremations within Ireland, neither of which have proved definitive. Firstly, Connolly et al. postulate that the practice may have taken place in a cave complex at Cloghermore, Co. Kerry. At least one inhumation is confirmed in the cave, and the presence of six additional artefacts in a separate area has suggested that a missing body may be due to cremation.[369] Secondly, cremated remains have also been discovered at Knoxspark in Co. Sligo, which Eamonn Kelly suggests could be from the Viking Age, as he speculates that the human remains are related to a possible *longphort* at the site.[370] The cremation at Knoxspark is part of an even greater burial complex, which Kelly speculates was centered around a ship or boat burial, based on the recovery of “many nails… mainly above the levels of the burials.” Although nothing conclusive can be drawn from the current analysis, Kelly does recommend “a programme of isotope analysis” for the burials at Knoxspark cemetery and the Ballysadare burial mounds, which could shed light on the ethnic and cultural backgrounds of those who lived and died in the community.

However, a recent study at Queen’s University Belfast radically disrupts perceptions of post-conversion Christian cremation within local Irish populations.

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[369] Harrison and Ó Floinn, *Viking Graves and Grave-Goods in Ireland*, 11, 620.; Connolly et al. 2005

[370] Eamonn P. Kelly, "Re-evaluation of a supposed inland promontory fort: Knoxspark, Co. Sligo – Iron Age fortress or Viking stronghold.," in *Relics of Old Decency: archaeological studies in later prehistory. Festschrift for Barry Raftery*, ed. G. Cooney et al. (Dublin: Wordwell, 2009), 489.

Patrick Gleeson and Rowan McLaughlin undertook a radiocarbon analysis of human cremations spanning across the first millennium. They discovered that there was “a significant upsurge” in cremations from the beginning of the eighth-century – a full hundred years prior to the arrival of the pagan Norse. While they concede that cremations may been used as a sort of reactionary paganism, or possibly indicative of plague, they also suggest that many of the cremations dated between the seventh and ninth centuries are actually buried or placed near churches and occurred alongside inhumation.[371] Specifically, their analysis would seem to discount the proposal of a Viking Age cremation at Knoxspark, as animal bone from below the cremated remains returned dates for AD 559-663 & AD 716-916.[372] While Gleeson and McLaughlin suggest an outright dismissal, the radiocarbon dates cannot automatically discount Norse activity in the area. However, the evidence that Irish (and/or Christian) cremation practices continued through to the end of the first millennium implies that this cremation does not have to be a pagan funerary ritual, and therefore it does not have to be Norse.

It is unknown at this time whether cremation practices continued in Christianized areas post-conversion in other lands outside of Ireland, though these finding could have significance in Scandinavia, where the story of Christian conversion is not yet complete. Ultimately, the idea of Christianized cremations adds another element of uncertainty in identifying Norse graves abroad.

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[371] Patrick Gleeson and Rowan McLaughlin, "Ways of death: cremation and belief in first-millennium AD Ireland," *Antiquity* 95, no. 380 (2021): 390-96, https://doi.org/10.15184/aqy.2020.251.

[372] Gleeson and McLaughlin, "Ways of death: cremation and belief in first-millennium AD Ireland," 390.; Their methodology takes into account the Marine Reservoir Effect, which could have potentially misdated the bones of individuals who consumed diets rich in seafood.

4.III.2 Scotland

In total, there are at least 153 individuals associated with the 83 sites, of which 25 sites contain human remains and two are associated with cremations. Within the criteria of the project, there are 94 individuals who are associated with 53 burial sites. 30 sites contain a weapon (sword and/or axe), while 35 sites contained oval brooches, and ten sites contained both (see Figure 54 for visual representations.)

Sigurd Grieg's *Viking Antiquities in Scotland,* which forms part of Haakon Shetelig's six volume compendium on *Viking Antiquities in Great Britain and Ireland*,[373] was the first comprehensive survey available on Viking Age burials in Scotland, originally published in 1940.[374] Individual corrections have been made to cases, but so far, an up-to-date survey has not been published.[375] James Graham-Campbell and Colleen E. Batey have offered their truncated take on Viking Age archaeology in Scotland,[376] and Shane McLeod has created a website with updated information on Viking Age burials.[377] Moreover, there is the Canmore database, which serves as an "online catalogue to Scotland's archaeology, buildings, industrial and maritime heritage."[378] Ultimately McLeod's catalogue was utilized for this project, though the information was cross-checked against the Canmore database, as well as Grieg's and Graham-Campbell and Batey's previous compilations. 83 burial sites were identified.

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[373] Haakon Shetelig, *Viking antiquities in Great Britain and Ireland*, 6 vols. (Oslo: H. Aschehoug, 1940).

[374] Sigurd Greig, *Viking Antiquities in Scotland*, ed. Haakon Shetelig, VI vols., Viking Antiquities in Great Britain and Ireland, (Oslo: H. Aschehoug & Co., 1940).

[375] "Viking Burials in Scotland: Landscape and burials in the Viking Age," The Strathmartine Trust; University of Stirling; University of Tasmania, 2015.

[376] Graham-Campbell and Batey, *Vikings in Scotland*.

[377] For example, see: Shane McLeod, "'Ardvonrig', Isle of Barra: an appraisal of the location of a Scandinavian accompanied burial," *Proceedings of the Society of Antiquaries of Scotland* 145 (2015). In which McLeod discusses how Greig originally attributes the burial as a double burial for a man and woman, despite the presence of only one set of human remains, due to the presence of a 'sword and shield'. In 1990, Kate Gordon at the British Museum identified these items as a weaving batten and heckles, which suggests that the burial was single female grave.

[378] 1. "The Online Catalogue to Scotland's Archaeology, Buildings, Industrial and Maritime Heritage," Canmore Database, accessed November 1, 2023, https://canmore.org.uk.

The earliest graves found in Scotland can be identified as those found at Millhill in Arran and Kiloran Bay in Colonsay, which date from the mid-ninth century.[379] The latest burial, found at Buckquoy, Birsay, Orkney, dates to c. 940-46.

Like Ireland, the spatial distribution places Norse burials (and likely settlement) along the coast and on the islands, indicating a lack of inland expansion. There are clusters of high concentration: in Shetland, Orkney, Caithness, and then Islay and Colonsay/Oronsay. Moreover, there is a clear line of burial distribution ranging from the northeast in Shetland down to the southwest in the Irish Sea and into the north of Ireland. This linear distribution appears to support the idea that these settlers originated from the west coast of Norway, first reaching Shetland before pushing onwards south and west to Britain and Ireland.

4.III.3 England

In total, there are at least 391 individuals associated with the 39 sites, of which 25 sites contain human remains and two are associated with cremations. Within the criteria of the project, there are 372 individuals who are associated with 32 burial sites. There are 30 sites that contain a weapon (sword and/or axe), while eight sites contained oval brooches, and five sites contained both (see Figure 56 for visual representations.) Dawn Hadley has pointed out that these majority male (read: weapon) Norse burials “contain items strongly associated with early medieval masculinity and lordship,” and that even the burial of an adult female and a juvenile at Heath Wood “were accompanied by masculine items including a sword hilt guard and what appear to be clamps from a shield-rim.”[380]

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[379] S.H. Harrison, "The Millhill burial in context: artefact, culture, and chronology in the 'Viking West,'" *Vikings in the West: Acta Archaeologica* lxxi: Acta Arcaheologica Supplementa ii, ed. S.S. Hansen and K. Randsborg (2000), 65-78.

Despite – or perhaps because of – the fact that England has recovered burials at only 39 sites across the country, there does not yet exist a complete compendium dedicated to the study of Norse graves in England. Angela Z. Redmond catalogued northern English Norse burials for her PhD dissertation, *Viking Burial in the North of England.* Her thesis identified 18 sites within northern England that can be definitively labeled as Norse in character. Julian Richard’s *Viking Age England* and Harrison’s doctoral thesis, *Furnished Insular Scandinavian Burial* served as additional sources to complete the remaining 21 sites.[381] To note, there are two sites that are almost certainly associated with the Great Army: the two major cemeteries in Derbyshire, Repton and Heath Wood are some of the most famous Norse burials in Atlantic Europe, given the number of individuals interred and the nature of the cemeteries.[382]

4.III.3.i Stone Monuments

Stone monuments must also be taken into consideration. Hadley has used Lincolnshire as a case study, noting that while no Norse burials have been identified in the county, “other indicators of the influence of the settlers are abundant, including Scandinavian place-names and jewelry displaying Scandinavian styles.”[383] She concludes that Lincolnshire was likely so heavily settled by the Norse that they deemed it unnecessary to create monuments in the landscape as overt displays of presence and authority. Moreover, by mapping out the distribution of stone funerary sculptures in the county, she suggests that archaeologists explore these sites as possible evidence for Norse burial adaptations to their new environments. This conclusion can be seen nowhere more strongly than in consideration of the hogback stones, which have been identified as distinctly Norse in character.[384] These appear to have been excluded from previous burial surveys due to the fact that they straddle both England and Scotland, and therefore do not qualify within regional studies. Julien Richards further suggests: “the use of hogback tombstones is alien to both immigrant and national groups, and appears to be an extremely visible, iconographic representation of the assimilation of two communities through cult practice at a particular period in time.”[385] That is to say, the use of hogback stone monuments cannot be viewed in the context of Norse burial, but as a consequence of Norse settling outside of Scandinavia and assimilating to native customs; the presence of a hogback is indicative of a blending of cultures.

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[380] Hadley, *The vikings in England*, 257.

[381] Richards, *Viking Age England*.; Harrison, *Furnished Insular Scandinavian Burial.*

[382] Jarman et al., "The Viking Great Army in England: new dates from the Repton charnel."; Julian D. Richards et al., "Excavations at the Viking Barrow Cemetery at Heath Wood, Ingleby, Derbyshire," *The Antiquaries Journal* 84 (2011), https://doi.org/10.1017/s0003581500045819.

4.III.3.ii Brooches and Pins

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[383] Hadley, *The vikings in England*, 252.

[384] J. T. Lang, "The hogback - A Viking colonial monument," *Anglo-Saxon Studies in Archaeology and History* 3 (1984).

[385] J. D. Richards, "The Case of the Missing Vikings: Scandinavian Burial in the Danelaw," in *Burial in Early Medieval England and Wales*, ed. S. Lucy and A. Reynolds, Society for Medieval Archaeology Monograph (Leeds: Many Publishing, 2002), 165.

Thanks to the success of the Portable Antiquities Scheme in England, which encourages members of the public to come forward to record any stray objects they may have found, metal detecting has completely transformed the way that archaeologists and historian understand Norse presence on the island of Britain.[386] Of particular interest are the large number of Scandinavian-style brooches that have come to light, many of which can be dated to what Jane Kershaw terms the Settlement Period, c. 870-950.[387] The discovery and recording of these brooches is significant because brooches are a distinctly feminine item, which suggests that Norse women – or women who adopted Norse-styles – were present and active during a turbulent period of warfare and settlement.

It must be noted that metal-detecting can be problematic. Unlike archaeology, which excavates sites in a process of stratified layers, metal detectors often dig down directly to the object, which obscures the context of a find and leads to difficulties of dating. It is possible that these brooches indicate the presence of a larger site, which the act of metal detecting naturally disrupts. However, the brooches currently registered on the PAS now make up over 90% of all recorded Norse-style brooches in England.[388] Only 83 oval brooches have been recovered from Norse-identified burials (60 excluding Iceland), of which only eight have been found in England. Female objects, such as brooches, have long been overlooked in favor of more masculine objects: swords, spears, shields, etc. It is possible that some of these Scandinavian-type brooches registered in the PAS are part of Norse female burials. The lack of recognition of female burials based on brooches or jewelry alone has recently been recognized by archaeologists as an oversight, and must be taken into consideration, especially in the context of Norse burials with and without remains.[389]

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[386] "Portable Antiquities Scheme," ed. The British Museum (London: Department for Digital, Culture, Media & Sport). https://finds.org.uk/database.

[387] Kershaw, "Culture and Gender in the Danelaw: Scandinavian and Anglo-Scandinavian Brooches," 295.

[388] Kershaw, "Culture and Gender in the Danelaw: Scandinavian and Anglo-Scandinavian Brooches," 297.

Using Jane Kershaw's database of Scandinavian and Anglo-Scandinavian Brooches, c. 850-1050, which was uploaded to the Archaeology Data Service in 2012,[390] as well as the Open Access PAS database up to 2021,[391] I compiled my own database of Norse-style jewelry c. 800-950. Inclusive of my material are objects that can be dated within this range but extend up to the year 1000. While Kershaw's database was comprised of 485 brooches, my own database was limited to 354 objects, of which 211 could be georeferenced. By mapping these finds, a clear distribution pattern emerges: the majority of these brooches are found along the southern and central east coast of England, in what has been identified as the historical Danelaw (see Figures 63 & 64).

The clustering of brooches within the Danelaw territory (and the lack of any finds outside of it) provides material evidence to support arguments that the Norse ruled and maintained a strong presence in eastern England from the mid-ninth century onwards. Specially, it suggests that Norse women were present and active in the

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[389] Moen, "Challenging Gender - a reconsideration of gender in the Viking Age using the mortuary landscape," 114.

[390] Jane Kershaw, "Culture and Gender in the Danelaw: Scandinavian and Anglo-Scandinavian Brooches, 850-1050," (York: Archaeology Data Service, 2012).

[391] "PAS."

Danelaw, and/or native women adopted Norse fashion as a means of submission to their new Norse overlords.

The purpose of this exercise is to examine a form of Norse evidence that has traditionally be under-studied due to its assotication with the female gender. By mapping the distribution of Scandinavian-type jewellery available through the PAS, it becomes clear that the Norse were active and settled in a large area of eastern England, and this material evidence supports the historical sources. More than than, it also allows for arguments that women played a larger role in the settlement and colonization of England (and possibly the rest of Atlantic Europe) than previously believed.

4.III.4 Isle of Man

The Isle of Man is the most densely-packed location for Norse burials in Atlantic Europe outside of the Dublin. In total, there are 18 burial sites on the Isle of Man with at least 27 individuals. Only five sites are associated with human remains and there are no cremations. Within the criteria of this project, there are 16 sites with 24 associated individuals. 15 of the sites contain weapons (swords/axes) and two contain oval brooches, with one site containing both (see Figure 55 for visual representation.) Given the grave goods that were deposited alongside the dead, it is possible that the burials uncovered on the Isle of Man belong to those of high status.

In the context of gender, the burial at Ballateare serves as an important case study because of its association with a possible slave sacrifice. A male was deposited alongside a sword, spear, ring-pin, knife, and shield boss that still bore marks from a sword, and buried within the mound was also a young woman (aged 20-30) who lay in a prone position with her hands above her head. A blade wound to the skull appears to have been the cause of death. Archaeologists have been keen to suggest that the woman was a ritual sacrifice similar to the account made by Ibn-Fadlan.[392] Recently, calls have been made for a more cautious approach towards “the widespread desire to wallow in the gore of this narrative.”[393] This has as much to do with presumptions made on the basis of gender as it does concerning uncertainty in the chronology of the burial. This case is used in this chapter specifically to highlight that assumptions must be made explicit and undertaken cautiously when it comes to Viking Age burials, as so much relies on guess work.

4.III.5 France

Only two Norse burials have been identified on the Continent based on the criteria presented in this project, both of which are in France: The Ile de Groix ship burial off the coast of Brittany and a set of oval brooches recovered outside Pîtres near Rouen. Artefacts can be sourced or linked within the Continent, but also within Ireland, and it has been suggested that the burial’s closest cultural parallel can be found at Myklebost in Norway.[394] Both locations are within territories known to have been settled by the Norse by the early-10th century.

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[392] G. Bersu and D. M. Wilson, *Three Graves in the Isle of Man*, Society for Medieval Archaeology Monograph, (1966).; Leszek Gardeła, "Viking Death Rituals on the Isle of Man," in *Viking Myths and Rituals on the Isle of Man*, ed. Leszek Gardeła and Carolyne Larrington (Nottingham: Centre for the Study of the Viking Age, University of Nottingham, 2014).

[393] Howard Williams, "Manx Vikings 2: Interpreting and Displaying Human Sacrifice," *ArchaeoloDeath: Death & Memory - Past & Present*, 2016, https://howardwilliamsblog.wordpress.com/2016/01/24/manx-vikings-2-interpreting-and-displaying-human-sacrifice/.; David Griffiths, *Vikings of the Irish Sea: conflict and assimilation AD 790-1050* (Stroud: The History Press, 2010).

4.III.6 Iceland

Iceland serves as a special case study due to its unsettled landscape prior to the Viking Age. Literary tradition holds that Icelandic settlers reached the North Atlantic island *circa* 870 AD. These settlers hailed primarily from the west coast of Norway, though there are references to those of Irish and British heritage. Recent genetic analysis upholds the traditional narrative, with the majority of male lineages tracing back to western Norway and the majority of female lineages stemming from the Irish and British isles.[395] By collating data on Icelandic Norse burials, this section attempts to act as a litmus test in order to show the potential for burials and burial types that may have occurred in Britain and Ireland (and possibly even the Continent), but which have yet been recovered or detected.

Between the late 18th-century and 2000, roughly 300 graves of ‘Pagan,’ i.e. Norse, character have been discovered in Iceland. Kristján Eldjárn compiled a survey of these graves for his 1956 thesis *Kuml og haugfé: Úrheiðnum sið á Íslandi,* and in 2000, archaeologist Adolf Friðriksson added to, edited, and systematized this collection for republication.[396] Icelandic Viking Age burial practices adhere to a confluence of cultural traditions, with “an odd mixture of ‘Norse’ and non-‘Norse’ features to be found.”[397] Eldjárn identified the main characteristics of a pagan grave as containing: “human bones, bones of horses and dogs, weapons, jewelry, household utensils, etc…”[398] Ultimately, every burial identified by Eldjárn and Friðriksson was selected for use in the GIS database of Norse Burials.

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[394] Neil Price, *The Vikings in Brittany*, Viking Society for Northern Research, (University College London, 1989), 67.; H. Arbman and N-o. Nilsson, "Armes Scandinaves de l’époque Viking en France," in *Meddelanden från Lunds Universitets Historiska Museum* (1966-8), 124.; M. Müller-Wille, "Das Schiffsgrab von der Ile de Groix (Bretagne): Ein Exkurs zum Bootkammergrab von Haithabu," in *Berichte über die Ausgrabungen in Haithabu* (1978), 68-9.

[395] Dawn Elise Mooney, "Examining Possible Driftwood Use in Viking Age Icelandic Boats," *Norwegian Archaeological Review* 49, no. 2 (2016), https://doi.org/10.1080/00293652.2016.1211734.; Birkedahl and Johansen, "The Sebbersund boat-graves."; Frans-Arne Stylegar, "The Kaupang cemeteries revisited," in *Kaupang in Skiringssal*, ed. Dagfinn Skre (Aarhus: Unversitetsforslag, 2007).; M. Rundkvist and H. Williams, "A Viking boat grave with amber gaming pieces excavated at Skamby, Östergötland, Sweden," *Medieval Archaeology* 52 (2008), https://doi.org/https://doi.org/10.1179/174581708x335440

Unlike the sections above, the spatial distribution of Icelandic pagan burials reveals little information about Norse activity and settlement during the Viking Age, except that Iceland appears to have been extensively settled by the beginning of the second millennium, with settlements clustering along the coasts. The majority of the objects can be typologically dated to the tenth-century, with a minority dating to the late-ninth century. Friðriksson tallied the distribution of the graves: there are 157 sites for an approximate total of 316 burials. Of these sites, 92 are single burials, while 65 cemeteries have been identified. However, he suspects that cemeteries were in fact more common that single burial sites, indicating that “the majority are chance finds which have not been followed up by systematic survey or excavation.”[399]

Grave goods indicate that the majority of the burials do follow contemporary Norwegian burial customs, though artefacts from Britain and Ireland, as well as from Sweden and the Baltic have been recovered. There does not seem to be a cultural divide between the gendered goods. Both swords (male) and jewelry (female) suggest non-Atlantic Scandinavian origin, and therefore do not align with the literary or genetic discourse surrounding Scandinavian male and British/Irish female settlers.

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[396] Adolf Friðriksson, "‘Viking Burial Practices in Iceland,’ in his re-edition of Kristján Eldjárn, *Kuml og haugfé. Úr heiðnum sið á Íslandi*," in *Kuml og haugfé. Úr heiðnum sið á Íslandi* (Reykjavík: Bókaútgáfan Norðri, 2000).
[397] Tsigaridas Glørstad, "Homeland - Strange Land -New Land," 156.
[398] Friðriksson, "Viking Burial Practices in Iceland," 41. Translation my own.
[399] Friðriksson, "Viking Burial Practices in Iceland," 590.

For better or worse, interpretations of Icelandic burials have often come as a direct result of Norwegian comparisons. For example, it has been noted that there is a distinct lack of cremations recovered, whereas cremations are moderately common in Norway. Icelandic archaeologists, Eldjárn included, have suggested that the Icelandic Viking Age burials are especially notable for their poverty. This has led Orri Vésteinsson to conclude that the "grave goods support the general impression of material poverty among the first generations of Icelanders," and that "the Icelanders were very much the poor cousins, compared with Norway, when it came to personal objects taken to the other world."[400] However, Þóra Pétursdóttir has pointed out that this perceived "poorness" was "demonstrated through the quantity of objects [rather] than their low quality."[401] It is her argument that the Icelandic burials should not be interpreted by what they lack, but instead engage with the graves as they appear.[402] Not only do some burials contain high quality objects, but there are also a number of well-endowed burials, which ultimately throws doubt onto both Eldjárn and Friðriksson's supposition that the settling Icelanders lacked wealth. Similarly, a lack of grave-goods in Iceland may be factor of deposition practice as much, or even more than, poverty, as discussed by

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[400] Orri Vésteinsson, "The Archaeology of *Landnám*," in *Vikings: The North Atlantic Saga*, ed. W.F. Fitzhugh and E.I. Ward (Washington and London: Smithsonian Institution Press, 2000), 169.

[401] Þóra Pétursdóttir, "Icelandic Viking Age Graves: Lack in Material - Lack of Interpretation?," *Archaeologica Islandica* 7 (2009): 24.

[402] Pétursdóttir, "Icelandic Viking Age Graves," 38.

Harrison.[403] If however, the thread of poverty is to be followed, the sagas hold that many of the richer and more influential settlers were Christian by the time of their death, or that they were later reburied by their Christian descendants.[404] These burials would therefore exclude the possibility of grave goods altogether.

It should further be noted that some Norse settlers were known to have emigrated from the Irish Sea and Northern Atlantic region, and these settlers brought with them a large number of native Irish, British, and Picts – enslaved or otherwise. It is argued here that Iceland, and not the Scandinavian homelands, serves as the most effective control when looking towards comparative studies of Viking Burials throughout Atlantic Europe. As an uninhabited land prior to Norse settlement during the Viking Age, Iceland reveals a unique insight into how the close alignment between Norse and early Christian Atlantic European settlers occurred organically, in which larger populations exuded internal pressures from within the Norse homelands and/or the British and Irish colonies.

In total, there are at least 334 individuals associated with the 246 sites, of which 207 sites contain human remains and none are associated with cremations. Within the criteria of the project, there are 71 individuals who are associated with 57 burial sites. 36 sites contain a weapon (sword and/or axe), while 23 sites contained oval brooches, and three sites contained both (see Figure 57 for visual representations.)

4.IV Discussion

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[403] Harrison, S.H., "'Warrior Graves'? The weapon burial rite in Viking Age Britain and Ireland," in *Maritime Societies of the Viking and Medieval World,* ed. J.H. Barret and S.J. Gibbon (2015).
[404] For examples, see: *Egils Saga, Laxdæla Saga*

By combining burial data across Atlantic Europe and focusing the analysis on two main criteria, namely oval brooch and sword/axe distribution, several key insights have emerged. To begin, sword/axe burials are more common than oval brooch burials, at 65% versus 35%. Excluding Iceland, this changes only one percent, to 66% sword/axe and 36% oval brooch. While percentages fluctuate across different regions (specifically, Scotland's oval brooches outnumber swords/axes at 54% to 46%), by comparing Iceland against the rest of Atlantic European Norse burials, it is clear that sword/axe burials are at least 1/3 more common than oval brooch burials across those who explored and settled outside Scandinavia.

Iceland, Ireland, and Scotland, the Norse interred their dead largely along the coast or close to water, presumably in locations they had settled. The English distribution is slightly more interesting, wherein there are both inland and mass burials, such as Repton or Heath Wood. These can be explained by the historical sources, which place a large invading army in the inland area. Yet given the record of Danelaw settlement, there are far fewer burial sites than expected. Moreover, the complete lack of burials on the Continent (excepting a single opulent burial in Brittany), which also experienced mass invasions, is harder to explain.

This lack of burial evidence on the Continent must be addressed. It is possible that it is not absence of evidence, but simply evidence of absence. There has been less archaeological investigation on the Continent, which could explain these missing pieces. Similarly, there is a wider argument that archaeological distribution reflects urban growth and development in modern times. What burial sites have been recovered, and those that have not, could simply indicate areas that have and have not been disturbed by building. This logic can be applied to Ireland, where the cemeteries at Kilmainham, Islandbridge, and Inchicore suggest an intense presence of Norse settlers. These sites were only discovered due to urban and infrastructural expansion in the 19th-century. That is to say, these sites were found purely by accident.

However, the picture in England invites confusion and not a little frustration. The south of England has seen much more urban development than the north, and yet there are not as many burials to be found within the historic boundaries of the Danelaw as one would expect given the level of settlement suggested in the *ASC*. Kershaw's research into female jewelry has answered part of the riddle: namely, that archaeological evidence does exist for Norse life (and death) within the Danelaw. Yet, where are the Norse burials?

This brings back the simple solution that there must be an absence of evidence. Could the lack of archaeological material be an indication of early Christianization among the Norse? The heatmaps of Norse burials in Britain and Ireland, Figures 58 & 59, provide evidence of literal (and littoral) hotspots for Norse settlement and activity. The most deeply concentrated center of burial evidence can be found in Dublin. Orkney follows, which the Icelandic sagas record as being another center of Norse colonial power. The third and fourth concentrations are found in the southern Inner Hebrides and in the Isle of Man, which the sources suggest may have operated as a rival power to Dublin for a few short years.[405] It should also be noted that the ‘Cuerdale Corridor,’ which runs between York and the western coast of England, indicates a large settlement of Norse within inland England.[406] This places the majority of Norse burials along a line that spreads from Norway down into the Irish Sea, and also up into Iceland. Those buried in these hotspots likely originated from the west coast of Norway, and thus would share similar burial customs.

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[405] Downham, *Viking kings of Britain and Ireland: the dynasty of Ívarr to A.D. 1014*, 178-79.; *Laxdaela Saga* begins with Ketil Flatnose, a nobleman from Norway, setting up a colony in the Hebrides. His daughter, Aud/Unn, marries Olaf the White, who is likely King Olaf of Dublin, and who ruled alongside Ivar and Ausle c. 852-73. Hypothetically, an alliance between Dublin and a Hebridean power would largely benefit the Norse within the Irish Sea region as a whole.

However, while the British lands within the Corridor are covered by the PAS, there is little distribution of Scandinavian female jewelry found in this area. If a similar system to the PAS existed in France, Belgium, the Netherlands, or Germany existed, would Scandinavian female jewelry also be found in clusters where known or suspected Norse colonies are recorded? For example, this project hypothesizes that Scandinavian female jewelry is similarly distributed in Normandy, which was officially colonized by the Norse in 911, and yet lacks for Norse burials. Where a group from Western Norway colonized the Irish Sea and Northern Britain, could the groups that traveled between eastern England and the western Continent have originated from southern Scandinavia? Furthermore, could these southern Scandinavian groups have been influenced by Christian burial practices, effectively limiting the available evidence? It is thus argued that the presence of female jewelry represents a materially different cultural Norse group in eastern England (and possibly the western Continent) on one hand, and between the Irish Sea and Northern Britain on the other. Similarly, with oval brooches present in burials in northern Britain and Ireland, and swords statistically more prevalent in England, the argument for two separate groups is strengthened (see Figure 62). Moreover, by mapping a layer of hoards that contain dirhams, a clear separation emerges: the hoards containing dirhams, which lie along the Cuerdale Corridor, barely overlap with the distribution of PAS jewellery finds (Figure 64).

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[406] Horne, "The Most Praiseworthy Journey: Scandinavian market networks in the Viking Age," 12.

Ultimately, the archaeological evidence suggests that two separate Norse groups were present in Ireland and Britain; given the scarcity of either burial sites or hoards containing dirhams, I propose that the Norse active in Frankia aligned with the group in England. This two-group theory will be explored in much greater detail below.

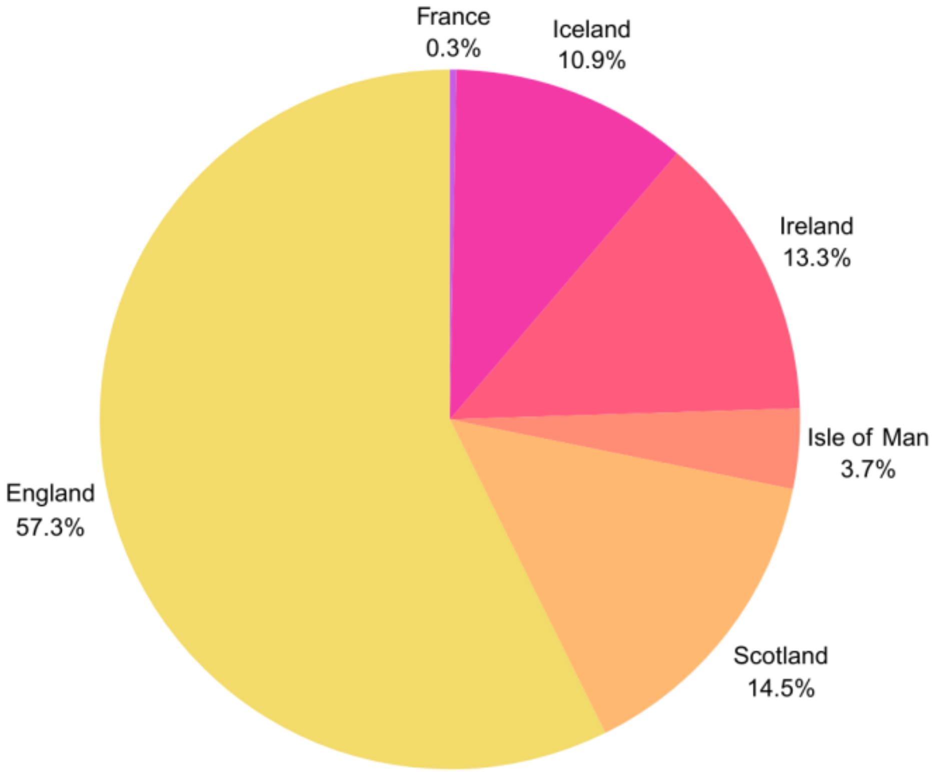

Figure 51: Minimum number of individuals in Norse burials across Atlantic Europe matching Weapon/Brooch criteria

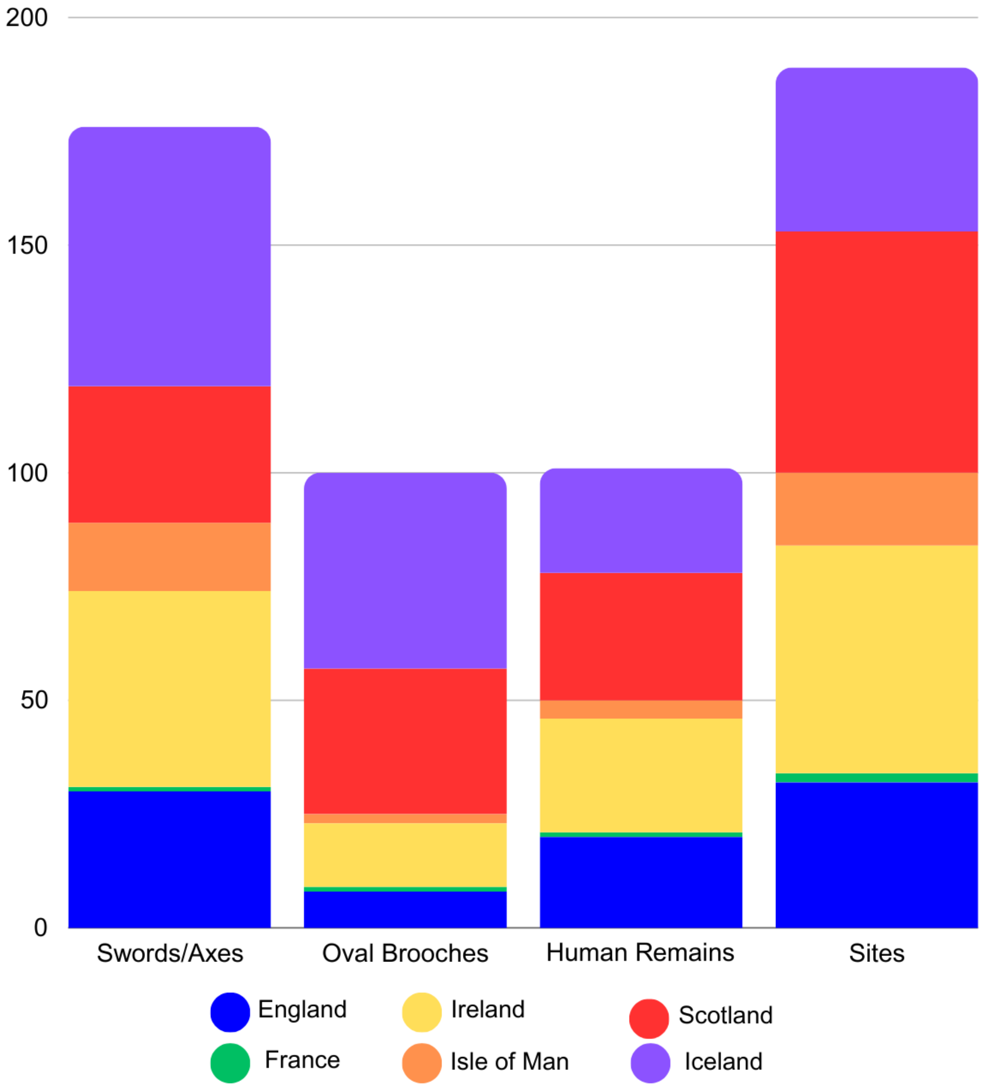

Figure 52: Counts of Burials under Project Criteria

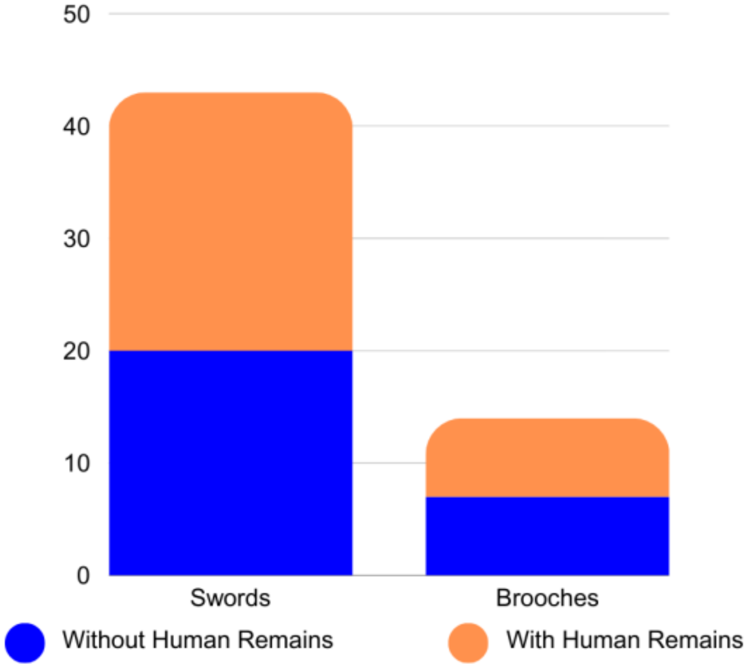

Figure 53: Irish Burials

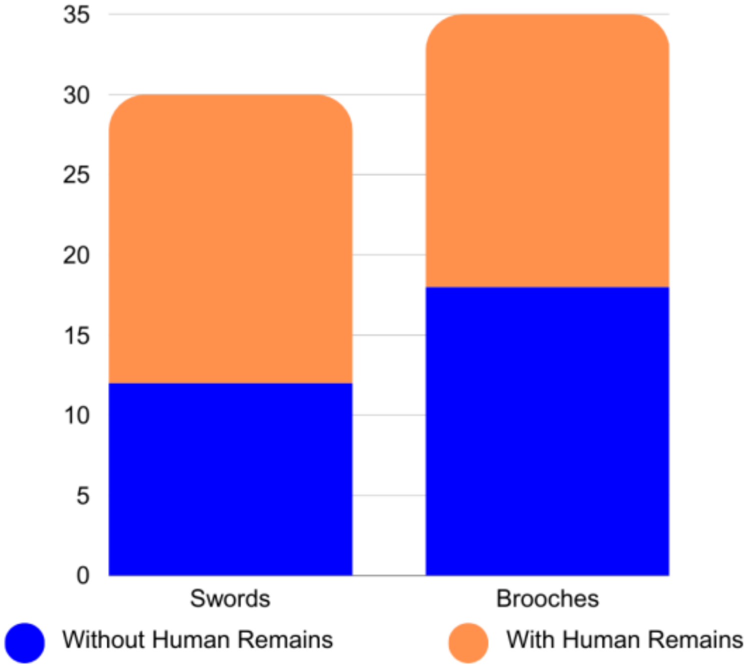

Figure 54: Scottish Burials

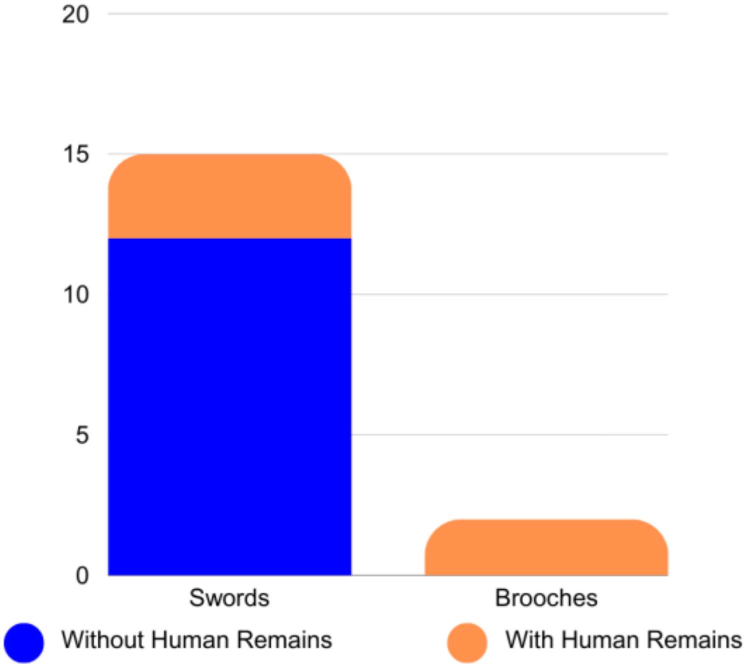

Figure 55: Isle of Man Burials

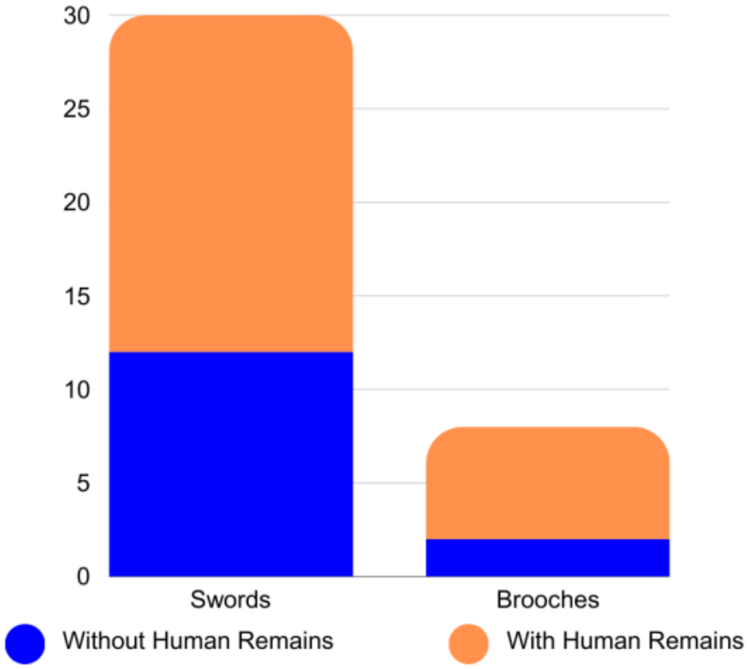

Figure 56: English Burials

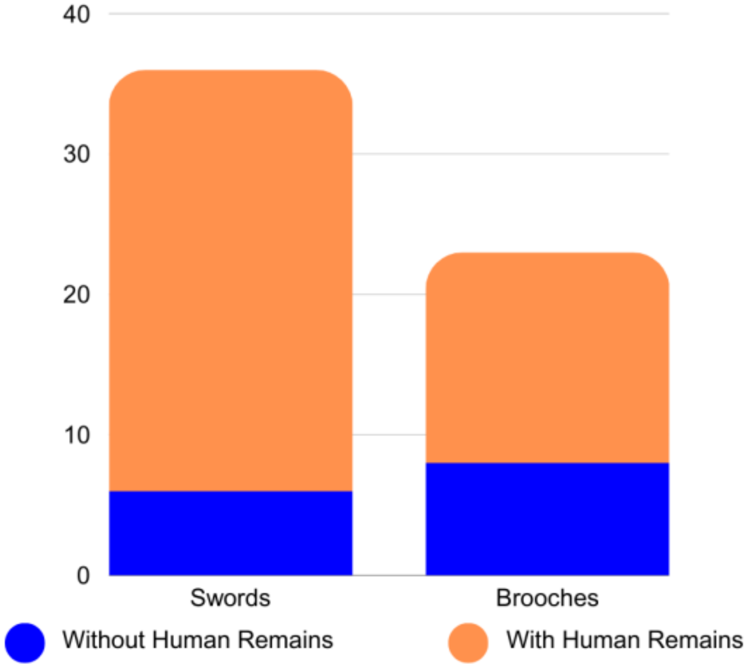

Figure 57: Icelandic Burials

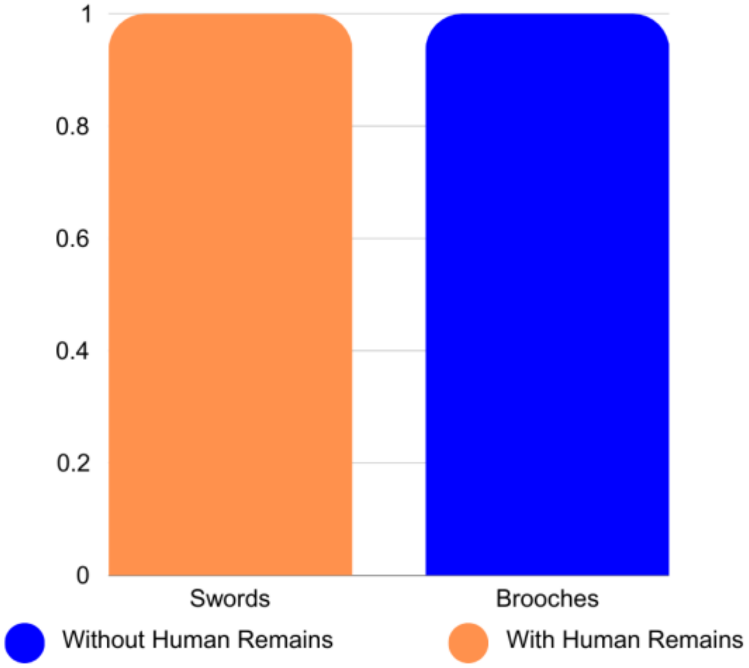

Figure 58: French Burials

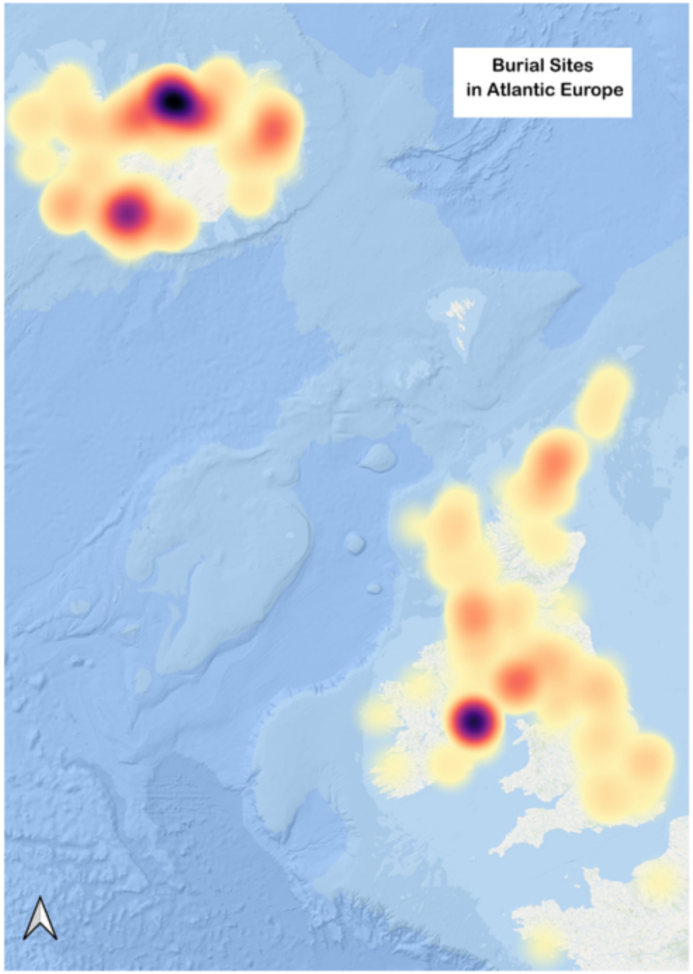
Burial Sites
in Atlantic Europe

Figure 58: Heatmap of Atlantic European Norse burials

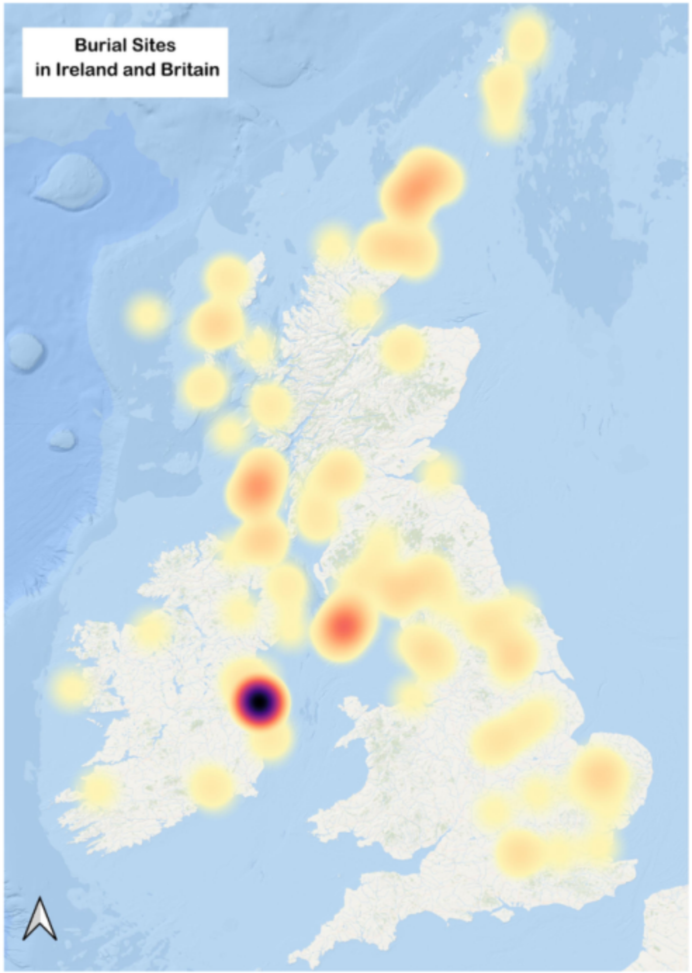
Burial Sites
in Ireland and Britain

Figure 59: Heatmap of Irish and British Norse burials

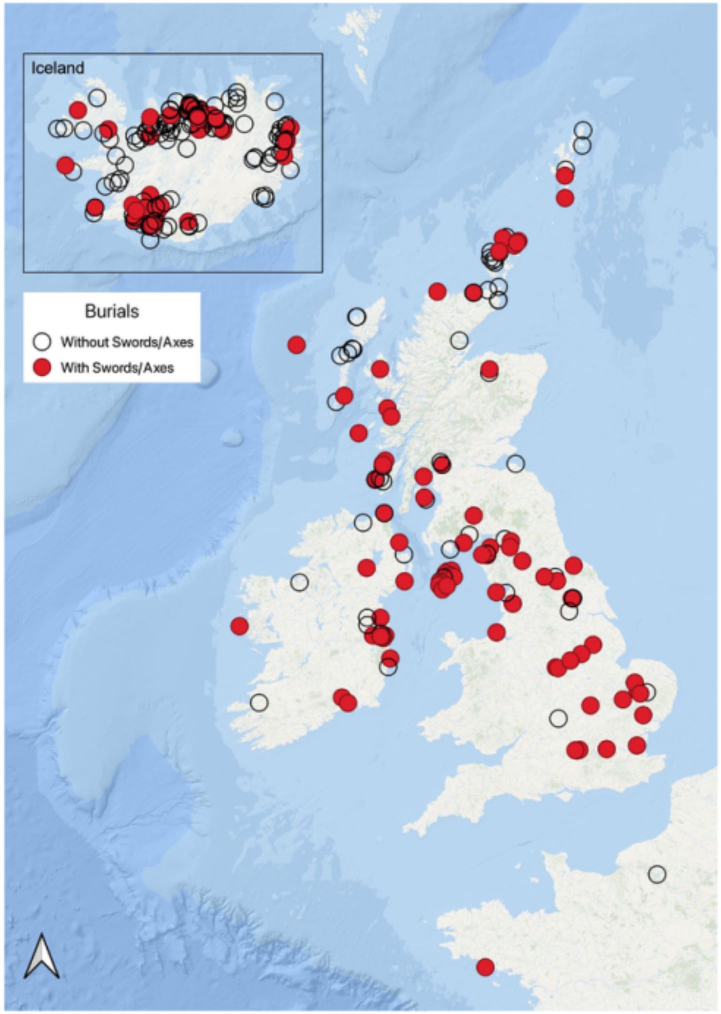
Iceland
Burials
○ Without Swords/Axes
● With Swords/Axes

Figure 60: Sword/Axe burials

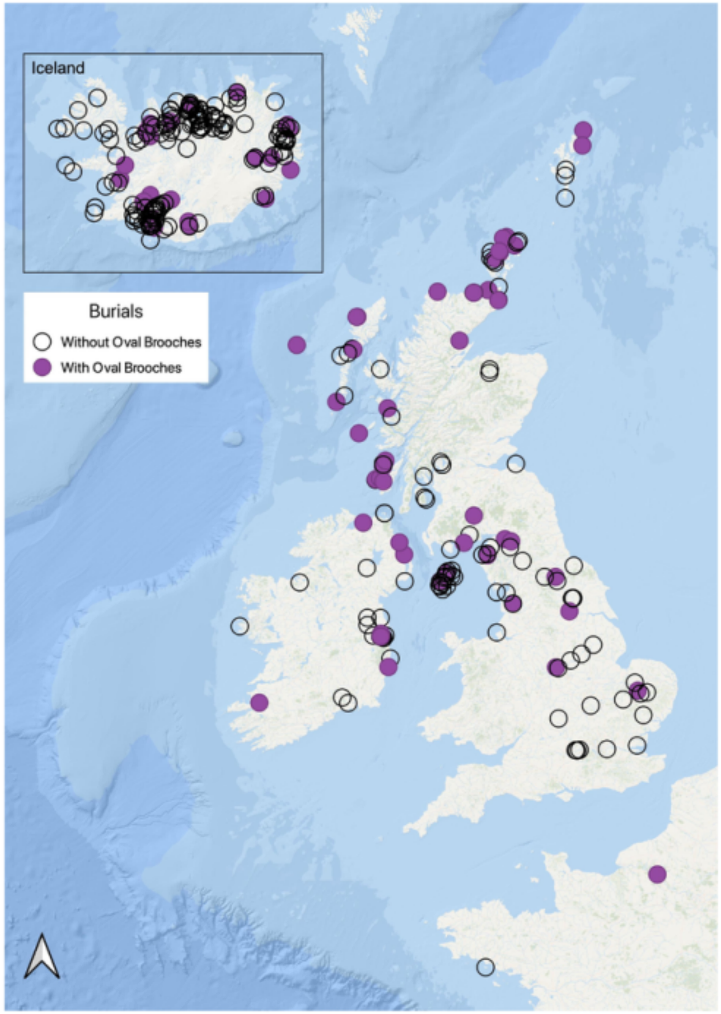
Iceland
Burials
○ Without Oval Brooches
● With Oval Brooches

Figure 61: Oval Brooch burials

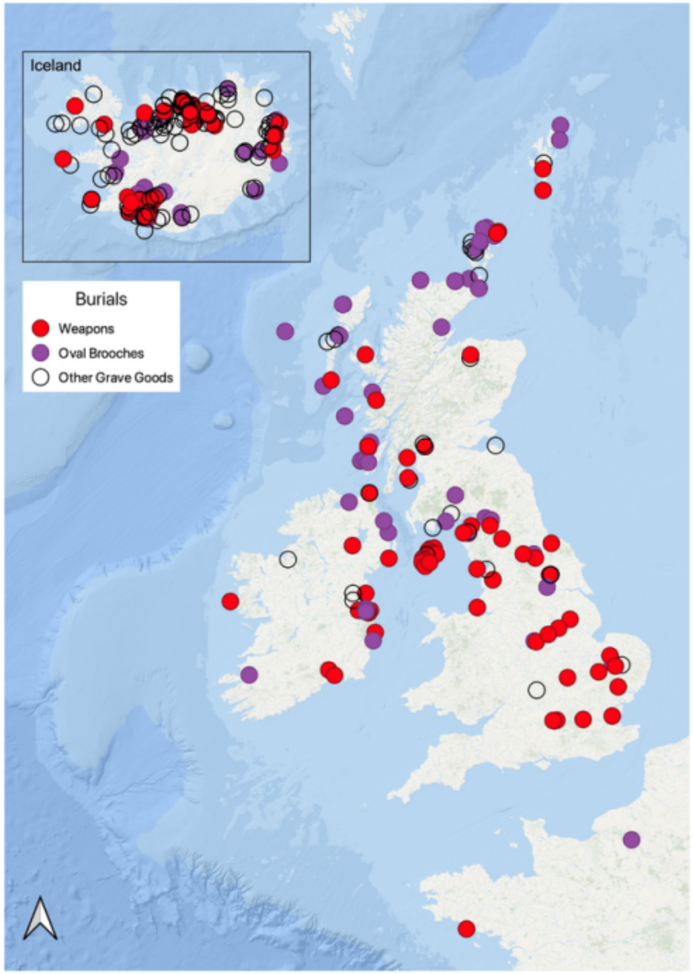
Iceland
Burials
Weapons
Oval Brooches
Other Grave Goods

Figure 62: Sword/Axe, Oval Brooch and other Norse grave good burials of Atlatnic Europe

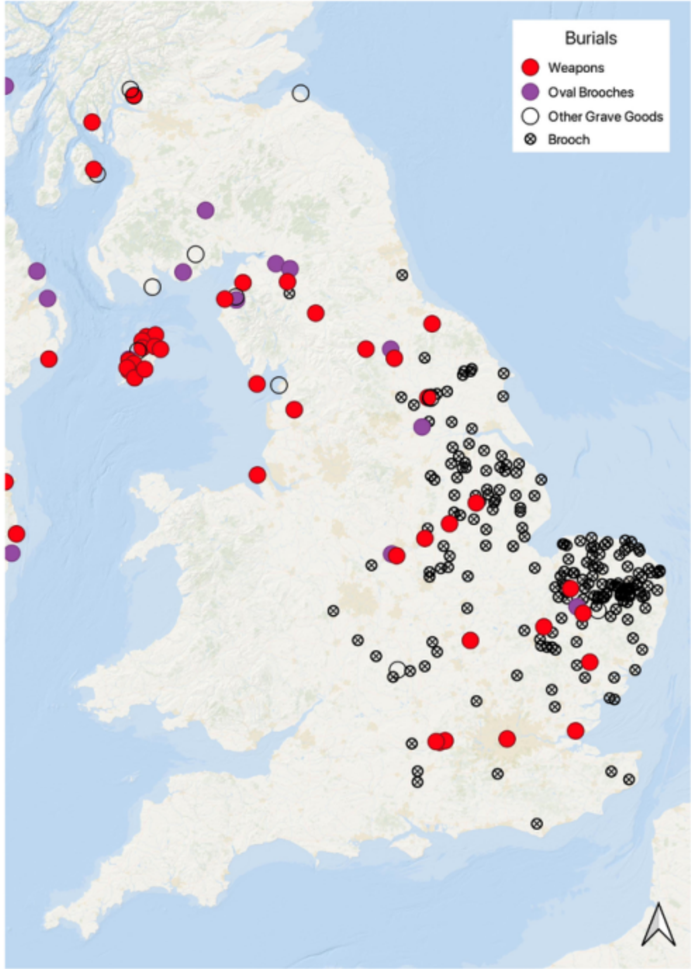
Burials
Weapons
Oval Brooches
Other Grave Goods
Brooch

Figure 63: Norse burials with PAS Scandinavian-type brooches in England

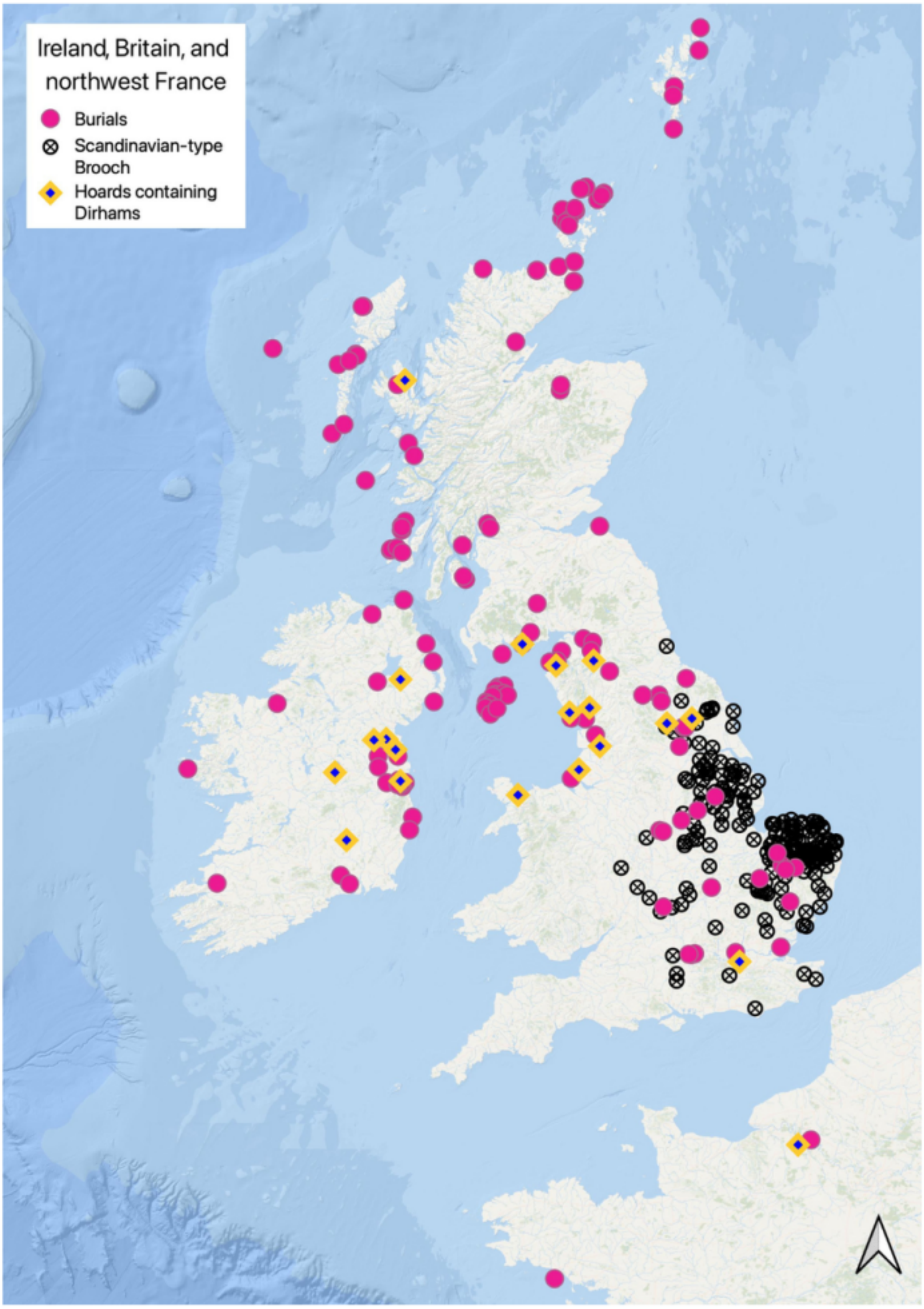
Ireland, Britain, and northwest France
Burials
Scandinavian-type Brooch
Hoards containing Dirhams

Figure 64: Distribution of Norse burials, PAS Scandinavian-type brooches, and hoards containing Dirhams

Chapter 5: A Chronological Analysis

5.I Introduction

This chapter concludes the GIS analysis of the early Viking Age by combining the evidence collected in previous chapters: textual, metal, and burial. The GIS map itself is available online as an interactive research tool, created using an ArcGIS Online 'Web Experience.' Using the Experience Builder tool, a map-centric multipage web application with interactive 2D distribution data and a chronological timescale was built and examined. The map can be found here:

https://experience.arcgis.com/experience/73fd6269dd1c4f48b52a89b5fead9700/page/Home/

By layering the available body of information and examining the chronology of events, new patterns of activity were uncovered, previous hypotheses were confirmed or refuted, and a more complete understanding into how the Norse became such a formative power in Western Europe.

In addition, the impact of elevation and topography on Norse activity is examined. The study of elevation and the idea of Norse activity within and across the various landscapes of Atlantic Europe falls under the auspices of Landscape Archaeology and the use of GIS to recreate and move across lost and forgotten landscapes.[407] Heather Richards-Rissetto has made a convincing argument for the use of GIS as a way to gain insight into how the landscape can "influence where people go, what they do, whom interacts with whom, and how does this shape their experience."[408] Previous scholars have outlined the need to explore human geography as "science of the spatial," a way in which accessibility and visibility structures human interaction.[409] Richards-Rissetto's own research uses GIS to model paths of movement and travel cost, highlighting that "visibility and accessibility played fundamental roles in the daily lives of the ancient Maya," suggesting that the landscape – inclusive of typography – affected the sociology of movement.[410] That is to say, space and place affect human activity, and this section seeks to understand how and why the Norse interacted with the new landscapes of Atlantic Europe by examining the elevation of activity.

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[407] For arguments of GIS as environmentally deterministic see: Meghan Cope and Sarah Elwood, *Qualitative GIS: A mixed methods approach* (Sage, 2009).

Ultimately, it is proposed that two distinct economic and political groups from Scandinavia were active in Atlantic Europe at the beginning of the Viking Age: members and actors of an established Danish Kingdom, which bordered the Carolingian Empire to the north. This group will henceforth be referred to as the Dano-Norse; and pirate groups that raided opportunistically and originally operated outside the control of the Danish state, hereafter referred to as the viking-Norse. Mapping from this project has shed light on how the Danish Kingdom attempted to interfere and/or takeover the trade routes and colonies established by the viking-Norse as the ninth century progressed. Eventually, the Danish Kingdom failed, creating a power vacuum in southern Scandinavia and driving out a considerable number of landed elites, who sought to carve out new territories for themselves abroad. It is at this point that the economic differentiations between the two groups blur and become unidentifiable, and the two groups are renamed in terms of their geographical activity: the Hiberno-Norse of the Irish Sea and the Scottish Isles/Coasts and the Channel Army, who operated between the early English kingdoms and the Continent.

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[408] Heather Richards-Rissetto, "What can GIS + 3D mean for landscape archaeology?," *Journal of Archaeological Science* 84 (2017/08/01/ 2017), https://doi.org/https://doi.org/10.1016/j.jas.2017.05.005, https://www.sciencedirect.com/science/article/pii/S0305440317300705.

[409] Doreen Massey, "Introduction: Geography matters," in *Geography Matters!: A Reader*, ed. Doreen Massey and John Allen (Cambridge: Cambridge University Press, 1984), 3.; Bill Hillier and Julienne Hanson, *The Social Logic of Space* (Cambridge: Cambridge University Press, 1984). https://www.cambridge.org/core/books/social-logic-of-space/6B0A078C79A74F0CC615ACD8B250A985.

[410] Richards-Rissetto, "What can GIS + 3D mean for landscape archaeology?."

This chapter proposes six stages of activity, which will be referred to as “Generations.” Each generation is limited to within a 20–40-year window of time, in keeping with the idea each period oversaw a cohort of peoples living and dying around the same time. These generational stages are utilized to make sense of the complex assemblage of spatial and temporal evidence assembled in the previous chapters. Furthermore, by adopting a temporal overview, this study aims to move away from the traditional regional approach, and instead tries to establish an interwoven narrative without regional limitations.

Generation 0 begins with the period before the beginning of the Viking Age, starting *circa* 750 and stretching to the year 793, which (ostensibly) marks the first record of a Norse pirate attack on non-Scandinavian soil. Generation 0 examines the nature and strength of a Danish kingdom using contemporary written sources and archaeological material as evidence. Generation 1 (793-818) oversees the first period of Viking Age activity, in which the Danish kingdom came into direct conflict with the Carolingian rulers and the viking-Norse raids began in Ireland and Britain. By Generation 2 (819-836), there was an acceleration of violence, both within the Danish kingdom and the Irish Sea region. The former constituted internal struggles, while the latter resulted from increasing raids on the island by the viking-Norse. It was during Generation 3 (837-860) that the viking-Norse began to settle in Ireland, just as the Danish royalty sought to expand their influence into the Irish Sea. However, civil war within the Danish state caused a collapse in the kingship of the unified territories, which would have catastrophic consequences for Generation 4 (861-890). The two original parties at play had evolved, specifically those aligned with the Danish State and those who pirated outside state control; the Dano-Norse became landless Danes seeking new territory between England and the Continent as part of the Channel Army, and those pirates became the Hiberno-Norse settlers of the Irish and North Seas. By Generation 5 (891-920), the Norse parties were effectively cutoff from their ancestral homelands. Though still considered outsiders by native populations, the Norse in Atlantic Europe were there to stay.

5.II Elevation

Within the Master Databank, for every location that could be exactly georeferenced (to within a 5km buffer zone, and was not considered a repeated entry), the elevation was added as metadata. 458 entries were found to be eligible points, and the breakdown of activity can be found below in Table 9. Ultimately, the main takeaway is thus: diplomatic meetings took place at the highest average elevation (45 events at 89.91m), conflict and violent activity dropped to an average of 68.9m (322 events), while settlement took place at the lowest average elevation (86 events at 35.33m.) This suggests that the Norse were both strategic and opportunistic in their violent raids and campaigns across Atlantic Europe, sticking to areas of low elevation so as not to impede their own progress unnecessarily; they saw no need to travel into higher altitudes to gain what they sought, likely because what the most heavily settled and most fertile areas tended to be in lower and coastal elevations. Figure 65 breaks down activity by Generation, suggesting that the Norse grew bolder in both conflict and settlement as years went on, venturing into areas of higher elevation. While currently limited, further studies on elevation and topography could prove highly insightful in understanding more about Norse activity.

5.III Generation 0: Preparing for the Viking Age

The argument below centers around the following two points: (1) In southern Scandinavian, a stable Danish state was in the process of forming. Its center could be found in southern Jutland and around the island of Funen. There is abundant evidence for the emerging presence of a kingdom north of the of the Carolingian Empire: written sources, large construction projects, urban development (inclusive of an agricultural shift to surplus food production), and economic development (i.e., the minting of coins, long-distance trade). In response to Carolingian aggression against the Saxons, the Danish kingdom began to prepare itself against attacks from the south. (2) As the Danish kingdom formed in southern Scandinavia, tertiary states began to consolidate along the west coast of Norway. These leaders (who possibly thought of and referred to themselves as kings) controlled and regulated trade between the Arctic north and southern Scandinavia. These conclusions are formed through re-analysis of the existing evidence, as well as with the support of secondary literature.

5.III.1 The Establishment of the Danish Kingdom: State Formation in Theory and Practice

In this section, it is argued that a centralized Danish kingdom was in the process of formation by the middle of the eighth century. This northern state, centered on southern Jutland and Funen, was able to consolidate due to the development of established intra- and interregional trade routes, growing *emporia,* and capable diplomatic and military apparatuses. The evidence for this theory can be drawn from the peripheral contemporary Frankish records, as well as archaeological material.

Despite the lack of remaining contemporary records from within, Frankish annals and law texts offer extramural conceptions into the workings of the Danish state. By conquering Saxony and its surrounding tribal territories, Charlemagne actualized a border between the Carolingian Empire and the territories held by the Danes. As such, the Dano-Norse and the Franks, who were familiar to one another through centuries of trade, were forced into direct political contact and military confrontation from the last decades of the eighth-century. Most importantly, despite perceived conceptions by the Christian Franks as being barbaric and "perfidious,"[411] Charlemagne and his court recognized the Dano-Norse state as a kingdom and its rulers as kings. The peoples of Southern Scandinavia had established a centralized kingdom consistent with theoretical frameworks for the formation of a state by the last decades of the eighth century. These typical indicators of state formation and increased political complexity are often based on a series of interdependent conditions.[412] This project suggests a model of centralization in which a state head/ruler has control over a designated hierarchy (1), the state's economic system (3), and its territories (2). The control of territory also lends itself to the idea of expansion (2A) and control over conflict and warfare (2B). This model can be visualized in Figure 66 below. Some archaeologists and anthropologists have suggested that traditional displays of a centralized state also include evidence of palaces, religious or state complexes, and/or cities. The early Danish kingdom is not without its palace complexes or *emporia*, though these sites appear on a smaller scale in comparison to their southern neighbors. However, the site of Lejre, on Zealand, consists of two large longhouses over 50 meters long, and it is suggested that this is where the Danish king resided when he not travelling with his court.[413]

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[411] Prior the end of the eighth-century, there are two written sources that offer evidence for a the presence of a kingdom in Southern Scandinavia: the Merovingian historian Gregory of Tours references an invading force of Danes into northern Frankia under the command of their king, Chlochilaich in the sixth-century, and Alcuin of York names Ongendus as a ruler of the Danish peoples in the early eight-century. In the 780s, the *ARF* refers to King Sigfrid of the Danes, and Sigfrid is also named in a letter between Peter of Pisa and Paul the Deacon. This suggests that whilst territories and boundaries for this burgeoning state remain indeterminate, the Frankish sources recognized a Danish state to the north of Saxony, which was ruled not by a chieftain or a warlord, but by a titled *rex.*

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[412] Discussion and theory regarding state formation is complex and multi-disciplinary. There is no singular definition for what comprises a centralized and established state, and as such the indicators I propose are compiled from well-accepted hypotheses of anthropologists, archaeologists, and sociologists.; Henry T. Wright, "Recent Research on the Origin of the State," *Annual Review of Anthropology* 6 (1977): 383. "In contrast to a developed chiefdom, a state can be recognized as a cultural development with a centralized decision-making process which is both externally specialized with regard to the local processes which it regulates, and internally specialized in that the central process is divisible into separate activities which can be performed in different places at different times."; Brigitte Boehm de Lameiras, "Substistence, social control of resources and the development of complex society in the Valley of Mexico," in *State and Society: The emergence and development of social hierarchy and political centralization*, ed. John Gledhill, Barbara Bender, and Mogens Trolle Larsen (London: Unwin Hyman, 1988).; Wright, "Recent Research on the Origin of the State," 380.; Elman R. Service, *Oigins of the State and Civilization* (New York: Norton, 1975), 266-89.; Charles S. Spencer, "Territorial expansion and primary state formation," *Proc Natl Acad Sci U S A* 107, no. 16 (2010), https://doi.org/10.1073/pnas.1002470107.

[413] Thurston, *Landscapes of Power, Landscapes of Conflict*, 128.

Whilst lacking in cities, archaeological excavations over the last century have provided definitive evidence for the emergence of *emporia* in southern Jutland. Ribe, on the west coast of central Jutland and facing out towards the North Sea, was established around 705. Hedeby, which lies on the east coast of southern Jutland and benefits from its proximity to the Danevirke, has been imprecisely dated to a foundation sometime in the eighth century. The site profited from its access to the Baltic Sea, as well as its close contacts with the Obodrites, the Frisians, the Saxons, and by extension the Franks. Within the *emporia* itself, recent studies have provided evidence of trade linking northern and southern Scandinavia, both of which peaked at the end of the seventh century. Steven Ashy and his team have identified the trade of reindeer antler throughout the Scandinavian Peninsula,[414] and Irene Baug and her team have substantiated that whetstones quarried from the Trøndelag region of present-day Norway were shipped south to Ribe.[415] Furthermore, territories within Denmark were not isolated from their southern neighbors, and the trade networks between the Dano-Norse and Continental Europe had been open since at least the rule of the Frankish Merovingians.[416] Muschelgrus-ware links Ribe to Frisia; the earliest finds date to the 780s.[417] Bardorf-ware, a soft, yellow earthenware from the Rhineland, has been found in large quantities during the excavations at both *emporia*, and it further links the sites to other *emporia* in Scandinavia and the Baltic,[418] as well as in England.[419]

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[414] Steven P. Ashby, Ashley N. Coutu, and Søren M. Sindbæk, "Urban Networks and Arctic Outlands: Craft Specialists and Reindeer Antler in Viking Towns," *European Journal of Archaeology* 18, no. 4 (2017), https://doi.org/10.1179/1461957115y.0000000003.

[415] Baug et al., "The Beginning of the Viking Age in the West."

[416] Thurston, *Landscapes of Power, Landscapes of Conflict*, 60.

[417] Ulf Näsman, "Exchange and politics: the eight-early ninth century in Denmark," in *The Long Eighth Century*, ed. Inge Lyse Hansen and Chris Wickham, The Transformation of the Roman World (Leiden: Brill, 2000), 46.

To return to the model of a centralized state: there are several large construction projects dating to the eighth and early-ninth century that suggest evidence for a ruler who controlled a designated hierarchy (1). The construction of the Kanhave canal and the Danevirke serve as clear examples, as the sheer scale of both projects necessitated intense planning, organization, and oversight. With the earliest section of the Kanhave Canal dendrochronologically dated to 726, construction constituted digging one kilometer across the narrowest section of the island, with a consistent width of 11 meters.[420] Archaeologists have interpreted the canal to be an offensive structure used in a bid to control the sea around the island of Samsø; Stavnsfjord was in use as a naval harbor by the beginning of the eighth century, and the canal may have been constructed as a secondary route out of the harbor to the west. Whoever moored their fleet at Stavnsfjord would have controlled that stretch of the Baltic Sea.[421]

The Danevirke, however, is interpreted to have served a defensive structure. Formed as a system of linear earthworks, it is one of the largest constructions in Northern European history, separating the Jutland peninsula from the western

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[418] Specifically Kaupang, Birka, Åhus, Truso, Reric, and Hamburg.
[419] Sindbæk, "Networks and nodal points: the emergence of towns in early Viking Age Scandinavia," 121.
[420] Anne Nørgård Jørgensen, "Naval bases in southern Scandinavia from the 7th to the 12th century" (paper presented at *Maritime Warfare in Northern Europe: technology, organisation, logistics and administration 500 BC-1500 AD*: Papers from an international research seminar at the Danish National Museum, Copenhagen, 3-5 May 2000), 137.
[421] Roesdahl, *Danmarks Vikingetid*, 44.

European continent.[422] With individual ramparts stretching more than 35 kilometers, the Danevirke underwent several phases of construction/reconstruction during the medieval period, beginning in the fifth or sixth centuries through to the 11th and 12th centuries.[423] The oldest layers, which consist of sand and turf, indicate an initial building period around the year 500.[424] The next phase of construction, which is represented by the addition of stone walls, have been identified within sections of the Main Wall and the Crooked Wall (situated between Hollingstedt at the River Treene and the western-most part of the Schlei Fjord), with carbon-dating placing the construction c. 700.[425] Phases IV-V, including sections of the Main Wall, work at Reesholm, the North wall, and the East Wall, can be dendrochronologically dated to 737 and the years directly following.[426] Physical evidence for construction does not appear again until the middle of the tenth century,[427] although the *ARF* makes a specific reference to the historical construction of the Danevirke by King Godfrid in 808.[428] Despite the lack of archaeological evidence, there is no reason to dismiss this account, as future excavations may yet confirm this record at a later date. Both the Kanhave canal and the Danevirke further support other attributing indicators of state formation: the elite sought to use Kanhave Canal as a means of controlling trade (3), whilst the

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[422] Roesdahl, *Danmarks Vikingetid*, 159-64.; Andres Siegfried Dobat, "Danevirke Revisited: An Investigation into Military and Socio-political Organisation in South Scandinavia (c AD 700 to 1100)," *Medieval Archaeology* 52, no. 1 (2008), https://doi.org/10.1179/174581708x335431.

[423] The Danevirke was also used/reconstructed during the Schleswig Wars, 1864-1866.

[424] Astrid Tummuscheit and Frauke Witte, "The Danevirke in the Light of Recent Excavations," in *The Fortified Viking Age*, ed. Jesper Hansen and Mette Bruus (Odense: University Press of Southern Denmark, 2018), 70.

[425] Dobat, "Danevirke Revisited," 39. See Table I.

[426] *Ibid.*; Incidentally the PDSI for June/July/August 735-738 records severe drought in Northern Germany and the Jutland Peninsula (as well as the rest of Northern Europe.)

[427] *Ibid.*

[428] Scholz and Rogers, *Carolingian Chronicles*, 88-9.; *ARF* 808.

Danevirke was constructed in order to defend consolidated Dano-Norse territory (2).

The Danevirke is the clearest example for the Danish kings’ policy of territorial control (2), however, other less tangible material can be applied towards this point. Ulf Näsman has used beads as a case study to suggest that the Danish kingdom was importing goods from the east beginning c. 780-800.[429] While not occurring until 808, the Danes seized Reric, with the Frankish Sources citing reasons of taxation and trade.[430] There is also an understanding that Kaupang, which began as a seasonal settlement between 790 and 800, took on the form of a permanent *emporia* under the control of the Danish king by *circa* 800.[431] Again, this is later evidence, though it is suggested that a level of control within the area would have been necessary before the Danes felt comfortable in establishing a settlement, especially considering Kaupang shows no indication of suffering any form of attack.[432] It has been suggested that that the Danish kings ruled over a territory that included the entirety of the Jutland peninsula, the islands of Funen, Zealand, Lolland, Falster, and Møn in Denmark, the areas of Blekinge, Scania, Halland, and Bohuslän in Sweden, and the Oslo fjord area from Østfold to Lindesnes in Norway.[433] References to the Danish kings’ ties to Scania and Vestfold appear in the Frankish sources in the first decades of the ninth century. However, the context suggests that these areas were under the political direction of – or at least diplomatically tied to – the Dano-Norse kingdom prior to their appearance in the annals.[434] The archaeological evidence suggests that the center of power could be found in southern Jutland, however no palace complex has yet been identified in this area. Lejre has already been mentioned above, which would indicate a center of power in the east. Given Charlemagne's own use of a peripatetic court, it is certainly possible that the Danish kings adopted a similar form of rule.

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[429] Näsman, "Exchange and politics: the eighth-early ninth century in Denmark."
[430] Scholz and Rogers, *Carolingian Chronicles*, 88-9.; *ARF* 808.
[431] Lars Pilø, "The Settlement: Character, Structures and Features," in *Kaupang Excavation Project: Kaupang in Skiringssal*, ed. Dagfinn Skre, Norske Oldfunn (Aarhus: Aarhus Univeristy Press, 2007).; Dagfinn Skre, "Towns and Markets, Kings and Central Places in South-western Scandinavia c. AD 800-950," in *Kaupang Excavation Project: Kaupang in Skiringssal*, ed. Dagfinn Skre, Norske Oldfunn (Aarhus: Aarhus University Press, 2007).
[432] Pilø, "The Settlement: Character, Structures and Features."
[433] Jón Viðar Sigurðsson, *Scandinavia in the Age of Vikings* (Ithica and London: Cornell University Press, 2021), 10-11.

Evidence for the elite control of an economic system, inclusive of trade and taxation (3), is clearly linked to both a designated hierarchy (1) and territorial control (2). Both archaeologists and historians have commented on a boom in trade and economic activity in the English Channel and the southern North Sea, which lasted from c. 780 and peaked in the 820s.[435] Verhulst has explicitly credited the success of Hedeby during the second half of the eighth century to its "protection by royal authority, of the Danish king."[436] Moreover, the Frankish *emporia* of Quentovic and Dorestad were controlled by royal representatives, who had oversight over foreign trade, customs, and tolls. Due to their proximity and similarities in layout and trade goods, it is likely that Ribe and Hedeby (and Kaupang) followed similar models of administration and management. [437]

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[434] Scholz and Rogers, *Carolingian Chronicles*, 93.; *ARF* 811.

[435] Simon Coupland, "Trading places: Quentovic and Dorestad reassessed," *Early medieval Europe* 11, no. 3 (2002): 211, https://doi.org/10.1046/j.0963-9462.2002.00109.x.; Baug et al., "The Beginning of the Viking Age in the West," 69.; Verhulst, *The Carolingian Economy*, 92. Dagfinn Skre, "Kaupang: between East and West; between North and South," in *Things from the Town: Artefacts and Inhabitants in Viking-age Kaupang*, ed. Dagfinn Skre, Norske Oldfunn (Aarhus: Aarhus University Press & the Kaupang Excavation Project, 2011), 444.

[436] Verhulst, *The Carolingian economy*, 92.

[437] *Ibid.*

The control of economic systems furthermore includes agricultural resources, and there is evidence to suggest that at the beginning of the eighth century there was a shift towards a centralized system of production, which resulted in a surplus. This surplus-production not only supported the *emporia*, which would have relied on its hinterlands to feed a largely non-agrarian population, but it also powered royal authority over a growing population.[438]

The above explains the internal mechanisms of a centralized state, but at the same time, external pressures of Frankish encroachment from the south likely contributed to the formation of the Dano-Norse kingdom. As the Carolingian Empire struggled with and swallowed up the Saxons, a people that lay between Nordmannia and Frankia, the Dano-Norse had good reason to take territorial control of their lands. Widukind's refuge in the court of King Sigfrid in 777 could suggest that Danes regarded the Saxon situation sympathetically, and that there was a history of alliance between the two tribes.[439] Furthermore, a letter between Peter of Pisa and Paul the Deacon during the 780s suggests that the early Danish kingdom was a dangerous pagan enclave, and they described Sigfrid as a ruler "who now holds his impious sceptre over a pestiferous kingdom."[440] This language no doubt refers to the paganism (i.e. the non-Christian practices) of the Danes. With the Saxons as their southern neighbors, the Danes would have been all too aware of how this non-Christian status could be used against them in a bid to conquer them, with the act of conversion an aggression that was engaged as a way to fully homogenize disparate peoples within the Frankish Empire. Charlemagne’s protracted and violent war against the Saxons took place over more than three decades (772-804), during which time a significant piece of legislation, the *Capitulatio de partibus Saxoniae*, decreed it a capital punishment to continue to practice pagan customs. While previous scholars have viewed this as forced conversion, Robert Flierman suggests that by the time the *Capitulatio* was written in the 780s or early 790s, the Carolingian court viewed the Saxons as Christian peoples within the Frankish realm. Given the high number of Saxon rebellions and uprisings, the *Capitulatio* served not as “a policy of sword-point conversion. It was cracking down on Saxon infidelity.”[441] By justifying the use of capital punishment, Charlemagne proved to be less interested in converting the Saxons as he was in controlling and subjugating them by equating infidelity with paganism. While there is no concrete evidence to suggest that Charlemagne planned to invade and expand into the Danish territories next, it is proposed that Danish consolidation was necessary in order to deter any Frankish interest further north.

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[438] Näsman, "Exchange and politics: the eight-early ninth century in Denmark," 61-2.; Randsborg, *The Viking Age in Denmark: The Formation of a State*, 52-3.

[439] Christian Cooijmans, *Monarchs and Hydrarchs: The Conceptual Development of Viking Activity across the Frankish Realm (c. 750-940)* (Routledge, 2020), 23.

[440] *Aut si pompiferi Sigifrit perpendere vultum, / impia pestiferi nunc regni sceptra tenentis* [...]. Ernst Dümmler, ed., "Pauli et Petri diaconorum carmina," in *MGH Poetae I* (Berlin: Weidmann, 1881), 51. Translated by Anders Winroth, *The conversion of Scandinavia: vikings, merchants, and missionaries in the remaking of Northern Europe* (New Haven, Conn. ; London: Yale University Press, 2012), 13.; Cooijmans, *Monarchs and Hydrarchs*, 23.

The evidence outlined above strongly indicates that a centralized Danish kingdom was operating north of the Frankish empire during the last decades of the eighth century. While arguments against the presence of a true Dano-Norse state include a lack of stability and/or constancy preceding the emergence of the later medieval state of Denmark,[442] as well as its lack of defined assets and boundaries,[443] Tina Thurston is correct when she says: “states, especially archaic states, may also be unstable.”[444] The Danish kingdom was unstable and subject to infighting and civil wars, as the contemporary annals would later prove. However, both the contemporary sources and the archaeological material suggests that the Dano-Norse elite ruled over a state with a centralized and designated hierarchy, which oversaw trade and resources within its urban centers and its rural hinterlands, and which defended its territories while also expanding its boundaries.

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[441] Robert Flierman, "Pagan, Pirate, Subject Saint: Defining and Redefining Saxons 150-900 A.D." (Universiteit Utrecht Doctoral, 2015).

Thus, when King Sigfrid sent Norse emissaries south to Charlemagne’s assembly (*Nordmanni missi Sigifridi regis*) in 782, he was acting as the ruler of a centralized kingdom. In the same year, Charlemagne had massacred thousands of Saxons at Verden following the battle of the Süntel; it should be noted that the Saxons blamed Widukind for leading the rebellion, but he had again slipped north across the border into *Nordmannia*.[445] As such, Sigfrid would have been all too aware of Charlemagne’s ambitions and, more specifically, the violent means that the emperor was willing to go to in order to achieve his aims. Sigfrid’s emissaries were thus an act of soft power from a king eager to defend his peoples and territories from an aggressive power seemingly determined to expand its empire northwards.

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[442] Angelo Forte, Richard D. Oram, and Frederik Pedersen, *Viking empires* (Cambridge: Cambridge University Press, 2005), 46.
[443] Winroth, *The conversion of Scandinavia: vikings, merchants, and missionaries in the remaking of Northern Europe*, 153.
[444] Thurston, *Landscapes of Power, Landscapes of Conflict*, 5.
[445] Scholz and Rogers, *Carolingian Chronicles*, 59.; *ARF* 782.

So marks the beginning of the Viking Age in the west: not with violence, but with diplomacy.

5.IV Generation 1: Exploration and Diplomacy, 793-818

During this first generation of Viking Age activity, it is argued that there are two separate and distinct Norse groups active in Atlantic Europe. The *Dano-Norse*, rulers and subjects of the Danish kingdom, are engaged in a territorial struggle against the Franks. Dano-Norse kings oversee the military conflict against the Carolingian Empire, and the ambassadors sent south to parlay are members of the Dano-Norse aristocracy. It holds that the kingdom is stable and wealthy, due in part to the kingdom's trade links in the Baltic and the North Atlantic Seas. However, the Frankish Annals record from within the Carolingian court that there is an internal hereditary power struggle amongst the noble elite of the Danish kingdom.

Separate to the Dano-Norse are a group of pirates, likely originating from the west coast of modern-Norway. By this period, tertiary kingdoms had formed within southern and western Norway in response to the strengthening of the Danish kingdom and its own expansion into the Oslo fjord. As such, the first raids in Britain and Ireland were triggered by a 'push' factor, whereby strong rulers of these newly formed kingdoms (or simply territories) pushed out weaker parties, who then went to seek out and accumulate wealth abroad. The raids would have been exploratory and opportunistic.

The raids along the west coast of France cannot be positively identified as viking-Norse groups. Pirate attacks were regular features of the Frankish Annals, and despite their perceived familiarity with the Dano-Norse, the Frankish scribes refer to these raiders simply as *pagan*, and not Norse. Who these other pagan priates were will be addressed below. The historical map of activity can be seen in Figure 67 below.

5.IV.1 Contact and Conflict between the Danish kingdom and the Carolingian Empire

By the turn of the ninth century, Godfrid, king of the Danes, experimented with both hard and soft power to dissuade Charlemagne from any expansionist ambitions north in *Nordmannia.* In 804, Charlemagne put down the final Saxon insurrection and effectively established a hard border between the Carolingian Empire and the Danish kingdom. Shortly thereafter, the king of the Dano-Norse arrived at a diplomatic conference between the two kingdoms with an impressive show of military strength. The *ARF* records that *Godofridus rex Danorum* sailed his fleet and cavalry to Schleswig in order to meet with Charlemagne and discuss the return of fugitives.[446] Rosamund McKitterick posits that Charlemagne's desire to expand his empire definitively ended with Bavaria and Saxony, and that the majority of the Frankish emperor's later military campaigns involved quelling resurgent pockets of Saxon and Frisian resistance. She further suggests that it was the Danish king who militarily and economically threatened the Franks.[447] While the Carolingian scribes paint the Danes as the aggressors, it is credible to propose that the Danes – operating from a lesser state - were preempting any attempts by the Franks - who controlled a larger state - to move farther north. By bringing a fleet and his entire cavalry, Godfrid displayed the Danes as a powerful and organized people that would not willingly join the Frankish Empire.

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[446] Scholz and Rogers, *Carolingian Chronicles*, 83.; *ARF* 804.

[447] Rosamond McKitterick, "Pippinids, Arnulfings and Agilolfings: the creation of a dynasty," in *Charlemagne: The Formation of a European Identity* (Cambridge: Cambridge University Press, 2008), 127-35.

Godfrid's show of power and resources seems to have sufficiently impressed the Franks. There are only two other mentions of an *equitatus* in the *ARF*. First, when the Franks defeated the Saxons in 759, and the Saxons pledged to present 300 horses per annum to their conquerors. Second, in 791, thousands of horses within the king's army died of a pestilence, and the scribes remark that up to one out of ten horses perished. Therefore, this mention of a Danish *equitatus* suggests that its appearance was unexpected or impressive, or both. It is impossible to know what kind of ships Godfrid commanded in his fleet, though it is unlikely that the entirety of his fleet was comprised of the ocean-worthy longships. However, even if the fleet contained a mix of battleships, merchant vessels, and other types of ships, it would have spoken to Danish resources and organizational ability. Ultimately, Godfrid chose not to engage either the fleet or the cavalry against the Franks, though the appearance of these military functions was significant enough to make an impression on the Carolingian scribes. The Dano-Norse must have been viewed as a worthy opponent.

In 808, four years after the meeting at Schleswig/Hedeby, Godfrid made his first move towards expanding his territory into lands and/or controlling resources previously held by Charlemagne. Godfrid crossed into Obodrite lands: the *ARF* recounts that he "took a number of Slavic castles in hand-to-hand combat."[448] He expelled Trasco, the duke of the Obodrites, murdered Duke Godelaib – presumably another Obodrite - and forced two-thirds of the Obodrite territories to submit to him. He then attacked Reric (Groß Strömkendorf) on the Baltic Sea, during which he destroyed the *emporium* and forcibly moved its merchants to Hedeby. The *ARF* specifically claims the made this move for economic reasons: “because of the taxes it paid, [Reric] was of great advantage to his kingdom.”[449] Godfrid was clearly aware of the commercial benefits that holding these merchants would bring. This lends credence to the hypothesis that the Danish kingdom was a centralized state, which was operating under an economy that understood and utilized a system of mercantile taxing.

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[448] Scholz and Rogers, *Carolingian Chronicles*, 88-9.; *ARF* 808.

I propose that Godrid’s destruction of Reric is linked to the opening of the eastern river trade routes that brought luxury goods north to the Baltic and Scandinavia. As discussed above, the stratigraphy of Ribe reveals that domestic bead production decreased in the second half of the eighth and the first half of the ninth century, while at the same time the *Mosaikaugenperlen* bead was increasingly imported from the eastern Mediterranean, Byzantium, and the Caliphate.[450] More importantly, these trade routes were increasingly bringing silver north along the river routes. According to Kilger, the chronological distribution of European hoards containing dirhams began with two hoards in the 770s, increasing to seven in the 780s, ten in the 790s, 16 in the 800s, and peaking at 29 in the 810s.[451] This number of recovered dirham hoards would only be surpassed in number in the 860s, from which period 40 hoards have been discovered.[452]

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[449] *Ibid.*

[450] Näsman, "Exchange and politics: the eight-early ninth century in Denmark," 44.

[451] Kilger divides Europe into the regions of Western Europe, Southern/Western Scandinavia, Eastern Scandinavia/Finland, Central Europe, Eastern Europe, and the Caucasus.

The results from Chapter 3 suggest that the Frankish Empire did not produce enough silver to feed its own economic needs, and therefore likely imported silver through its Mediterranean ports. With the opening of the Central and Eastern European River trade routes, which began importing silver into the Baltic in the 770s, Reric would have been of significant economic importance as a Frankish *emporium* on the Southern Baltic coast. However, there is no evidence to suggest that Charlemagne had capitalized on this new trade network by the early ninth century. No mints were currently operating in Frankish-controlled Reric, which implies that silver was not yet being imported into Frankia via the Baltic.[453] Godfrid, on the other hand, destroyed the potentially significant trading center – the only one under Frankish rule - and thereby sought to control the Baltic trade network and its eastern imports. His next move was to extend and/or repair the Danevirke in order to protect his territories and control his assets.

Having successfully interrupted Frankish trade in the Baltic, Godfrid moved his focus to the North Sea in 810. He mobilized a fleet of 200 ships and conducted a victorious military campaign along the Frisian coast, forcing the Frisians to pay a tribute of one hundred pounds in silver.[454] The Frisians had been fully incorporated into the Frankish Empire by this time, and thus this campaign must be viewed as a military expedition with economical and territorial ambitions.[455] Frisia was home to the Carolingian's economically important northern *emporia*: Quentovic and Dorestad. Thus, it seems likely that this campaign was either a warning or an attempt to seize the Channel and North Sea trade routes from the Franks. For all intents and purposes, Godfrid was waging economic war against Charlemagne.

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[452] Cristoph Kilger, "Kaupang from Afar: Aspects of the Interpretation of Dirham Finds in Northern and Eastern Europe between the Late 8th and Early 10th Centuries," in *Means of exchange : dealing with silver in the Viking Age*, ed. Dagfinn Skre, Norske Oldfunn (Aarhus: Aarhus University Press & the Kaupang Excavation Project, 2008), 209.

[453] Verhulst, *The Carolingian Economy*, 121.; No mints were opened east of the Rhine until 817, when one was opened at Regensburg.

[454] Scholz and Rogers, *Carolingian Chronicles*, 92.; *ARF* 810.

However, Godfrid was murdered by his own retainers shortly after his campaign in Frisia, and the Dano-Norse kingdom sought a policy of peace with the Franks under his successor Hemming. Hemming would die only two years later, at which point the kingdom descended into civil war. When the sons of Godfrid emerged victorious in 814, their kinsman and rival to the throne Harald Klak fled south to the court of the newly crowned Frankish king, Louis the Pious. When this would-be ruler of the Danish kingdom appealed to Louis for help, Louis seized his chance to influence Dano-Norse politics by offering a mutually beneficial alliance: in 815 Louis ordered the Saxons and the Obodrites to prepare for a military campaign in an effort to reinstate Harald as king of the Danes.

Louis's intervention is not surprising. His father had set several precedents for aiding non-Christian rulers in the face of Carolingian interests.[456] Furthermore, Louis, who had ruled as King of Aquitaine since his childhood, was familiar with the struggles of troublesome neighboring kingdoms along the empire's borders.[457] By taking this opportunity to intervene in Danish politics, Louis was attempting to ensure that the Dano-Norse kingdom would never again be as effective against the Franks as they had been under King Godfrid.

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[455] Costambeys, Innes, and MacLean, *The Carolingian World*, 356.
[456] Coupland, "From poachers to gamekeepers: Scandinavian warlords and Carolingian kings," 88.
[457] Costambeys, Innes, and MacLean, *The Carolingian World*, 196.

It is clear that Louis viewed the sons of Godfrid as a threat to his northern borders, much like their father had been, and was therefore willing to utilize considerable resources in order place his ally on the throne. The 815 campaign marked the first (and only) invasion of Frankish forces into Danish territory. The sons of Godfrid chose not to engage directly with the Frankish troops, despite claims that the Dano-Norse “had raised against them a large army and fleet of two hundred ships,"[458] and instead waited out the invasion on an island off the coast of Jutland. This tactic proved successful. Harald and his Frankish allies could not reach the Dano-Norse strongholds of the Danish islands, and thereby the sons of Godfrid gained a de facto victory. However, Louis continued to back Harald, who finally managed to re-secure kingship of the Danish territories in 819, although he agreed to share it with two of the sons of Godfrid.[459]

This first generation of activity oversaw the growing threat of the Danish kingdom to the geopolitical landscape of the Carolingian Empire. It is difficult, without the benefit of hindsight, to figure these events into the narrative of the Viking Age. Instead, the events reported above more accurately depict a smaller, younger state wielding hard and soft diplomacy in an attempt to maintain their independence from a larger predatory state. As the Dano-Norse kingdom grew in confidence, its rulers sought to wrest economic control over trade routes from the Carolingian Empire.

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[458] Scholz and Rogers, *Carolingian Chronicles*, 99.; *ARF* 815.
[459] Scholz and Rogers, *Carolingian Chronicles*, 106.; *ARF* 819.

Ultimately, the power of the Dano-Norse faltered not because of the power of the Franks, but because of instability and infighting between factions from within.

5.IV.2 The First Raids

It is argued that the first viking-Norse raids, which focused on Ireland and Britain, were undertaken by a group outside of the Dano-Norse realm. Namely, that the pirate groups who conducted exploratory and opportunistic forays into lands that they were not fully familiar with, and neither were the local peoples able to recognize them as groups of their acquaintance. This section will begin with a discussion of both the number of raids recorded by the Norse, and the nature in which they were conducted. The geographical spread of the recorded attacks is limited to the Irish Sea area and northeastern Britain, with one exception for the first reported attack, which occurred in either 787 or 789 in Southampton.[460]

It is clear that the first generation of raiders were not Dano-Norse, but instead originated from the west coast of Norway. As previously mentioned, archaeological material from gravesites in Rogaland, Hordaland, Sognefjord, Møre, and Sogn contain large amounts of insular metalwork, some exclusively Irish, which can be dated from the early-ninth century.[461] Western Norway also lays claim to the development in the structure of long-range ships, which allowed for travel west across the North Atlantic Sea. Such examples include the Storhaug ship (built 770, buried 779) and the Grønhaug ship (built 780, buried c. 790-795). These ships suggest that advances in engineering were underway that made such sailing in the Viking Age possible.[462]

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[460] Swanton, *The Anglo-Saxon Chronicle*, 52, 54, 55.

[461] Wamers, "Insular Finds in Viking Age Scandinavia and the State Formation of Norway," 47-49.; Skre, "From Kaupang and Avaldsnes to the Irish Sea," 242.

I must pause for a note surrounding the theory that the first raids were triggered by a ‘push’ factor, whereby the raids in Ireland and Britain “began as Vikings became the weaker party in a longstanding conflict in the homelands.”[463] Dagfinn Skre develops this idea further with his suggestion that Avaldsnes and the land along the Karmsund Strait were controlled by western Norwegian ‘sea kings.’ However, by his own admission, there are only thirteen coastal manor sites along the entire western coast, with a 200-kilometer lacuna in Sogn and Fjordane.[464] As such, it cannot be said with any confidence that longstanding conflicts existed in western Norway, nor that the consolidation of power that rulers and/or kings undertook as lesser states relative to the Danes resulted in a series of organized manor complexes. While there is ultimately agreement with the likelihood that pirates were pushed out by strengthening central leadership, the evidence for where or how that occurred cannot be definitively proven at this time.

There is further circumstantial evidence to suggest the viking-Norse were unknown and/or unrecognizable to at least the early English and the Franks. Alcuin of York wrote a letter to King Cenwulf of Mercia in 797 urging the ruler to recall Ethelhard as bishop, reasoning that, “the greatest danger overhangs this island and the people living in it. A pagan people habitually make pirate raids on our shores, a thing never heard of before."[465] Alcuin, a native of York who had made his career in Frankia, where he spent a large amount of time based in Aachen with Charlemagne, would have been familiar with the Dano-Norse through diplomatic assemblies and peripheral knowledge. This passage would suggest that the pagans targeting Britain were a separate group.

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[462] Skre, "From Kaupang and Avaldsnes to the Irish Sea," 244.
[463] Baug et al., "The Beginning of the Viking Age in the West."
[464] Dagfinn Skre, "29. Sea Kings on the Norðvegr," in *Avaldsnes - A Sea-Kings' Manor in First-Millennium Western Scandinavia* (2017).

As to the number of raids conducted by the viking-Norse, it is almost certain that more raids occurred than were contemporaneously recorded. The results from Chapter 2 reveal the extent to which the ASC focused on the kingdom of Wessex and its southwestern bias, and it is therefore likely that the raids in Southampton (787 or 789), Lindisfarne (793), and Jarrow (794) are not the sum total of attacks that took place within territories held by the Early English. Similarly, returning to Alcuin's passage above, he refers to 'habitual raids;' considering there are no records of attacks on any of the early English kingdoms between 794 and 835 in the ASC, this would suggest that the chronicle was not absolute in its records. It should also be noted that the Irish sources often reference more than one raid during a given year, which offers credence to the idea that the groups striking England at the end of the eighth century may have targeted other/multiple locations as well.

Within Ireland, the reports could be vague when locating the raids, and as such, the full extent of this first generation's incursions on the island can only be guessed at. Chapter 2's results specifically locate lacunae for activity along the west coast of Ireland (Figures 1-5), although raids are referenced at Inishbofin and

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[465] Stephen Allott and Alcuinus, *Alcuin of York, c. A.D. 732 to 804: His Life and Letters* (York: William Sessions, 1974), 65-6.

Inishmurray in 795. However, these sites were well known ecclesiastical centers, and would therefore have warranted specific attention from Ireland's clerical scribes. Furthermore in 798, AU states that the Norse "made great incursions both in Ireland and in Alba,"[466] and in 812, the Norse suffered heavy defeat in Munster.[467] Given the geographical analysis of the Irish Annals from Chapter 2, which credits the scribes with a northeastern focus (or dare we say bias?), we may count ourselves lucky that news of these attacks survive at all, even lacking exact coordinates. Unfortunately, information remains resolutely limited, and it is here proposed that evidence supports a larger number of raids in Ireland and northern Britain.

Now that it has been established that the number of raids on Ireland and Britain during the first generation of activity were under-reported, it is time to turn to the nature or the quality of these parties. The available evidence supports a favored hypothesis that these raids were primarily opportunistic attempts to seize portable wealth. The sources record that the Norse focused their early attention on religious centers and were likely easy targets, considering that they were largely undefended and known to contain valuable treasures. The island of Iona is a perfect example: the Norse raided the island in 795,[468] 802,[469] and again in 806.[470] It is impossible to know if Iona was targeted by the same group each time, or if rumors of its wealth drew new groups to it, but the repeated raiding suggests the Norse were after booty. Why the viking-Norse favored the reported high levels of destruction is less clear, but there are likely nuances that we cannot discern from the available sources.

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[466] AU 798.2
[467] AU 812.11
[468] AI 795.2
[469] AU 802.5; AFM 797.12
[470] AU 806.8; AFM 801.4

5.IV.3 Pirates on the Frankish Coasts?

In this section, it is argued that there is no concrete evidence to suggest that the pirate raids on the Frankish Coasts undertaken by ‘pagans’ at the turn of the ninth century were the product of either the Dano-Norse military or viking-Norse raiders. Contemporary texts have been used to cite viking-Norse incursions in Frankia during this first generation, though the language itself is indeterminate as to the origins of the pirates. The first potential viking-Norse raid stems from a letter written by Alcuin of York in 799, which indicates that attacks by non-Christian pirates were well-known off the coast of Aquitaine; specifically, a group of 115 pagans had arrived on an island off the coast of Aquitaine and were killed following a counter-attack by the locals.[471] His use of *paganae* here is not specific, and indeed may even refer to groups living within the Frankish territories. While the process of conversion had begun in Saxony and Frisia several decades prior, the extent to which these peoples adhered to Christianity is up for debate. As such, the use of ‘pagan’ does not automatically equate to ‘Norse.’ Biased readings have also led to scholars using this letter to substantiate their belief in an early viking-Norse raid on

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[471] Allott and Alcuinus, *Alcuin of York, c. A.D. 732 to 804: His Life and Letters.*; Donald A. Bullough, *Alcuin: Achievement and Reputation*, vol. 16, Education and Society in the Middle Ages and Renaissance, (Leiden and Boston: Brill, 2004), 304-8.

Noirmoutier on that basis that a Norse fleet attacked the island several decades later.[472]

Similarly, Charlemagne's trip to the Gallic coast in 800, during which time he "built a fleet on this, [the Gallic] sea, which was then infested with pirates,"[473] has been used to argue that viking-Norse attacks proliferated throughout these early years. The language is not convincing. The *ARF* uses the term *piratis*, and it has already been shown that the court scribes were familiar with the Danes and, more broadly, the lands of *Nordmannia*. It is certain that the *ARF* would have been more exact in identifying who exactly these pirates were. Indeed, in 810 the *ARF* reports that 200 Danish ships landed in Frisia, where they fought and won three battles against the Frisians. As this was a military campaign undertaken by the Dano-Norse, the Frisians were forced to pay a tribute of 100 pounds of silver. It is clear that the Franks did not understand this to be an act of piracy, but instead an act of warfare, and Charlemagne responded as such, gathering his troops and marching north.[474]

As such, the pirates mentioned in the sources could be anyone. For example, in 809 the deacon Aldulf was captured by British pirates as he sailed between Northumbria and Frankia.[475] The *ARF* also reference Italian and Northern African pirates, who were active in the Mediterranean, and they are specific in naming the Norse as the responsible party when they raided on coast of Flanders in 820.[476]

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[472] For discussion for, see: Peter Sawyer, *The Oxford illustrated history of the Vikings* (Oxford: Oxford University Press, 1997), 273.; Jean Renaud, *Les Vikings en France*, De mémoire d'homme, L'histoire, (Rennes: Editions Ouest-France, 2000), 13.; For discussion against, see: Christian Harding, "Community, cult and politics: the history of the monks of St Filibert in the ninth century" (Doctoral University of St Andrews, 2010), 74.

[473] Scholz and Rogers, *Carolingian Chronicles*, 78.

[474] Scholz and Rogers, *Carolingian Chronicles,* 92.

[475] Scholz and Rogers, *Carolingian Chronicles*, 90-1.

[476] Scholz and Rogers, *Carolingian Chronicles*, 107-8.

Pirates of all kinds were a threat to the Carolingian Empire, and there was a need for the Franks to establish their control over trade routes. Bernard S. Bachrach asserts that, "Charles Martel and his advisers knew by the early 730s that the Carolingians would have to impose a measure of direct control over Frisia ulterior, either to assert or to maintain control over the very lucrative trade into the North Sea from its bases on the lower Rhine at Durstede and Utrecht."[477] From this, it is clear that the Carolingians were invested in protecting the trade that flowed in and out of their *emporia* for nearly 70 years before c. 800.

The two examples above, used vociferously to cite the early aggressions of Norse piracy, cannot be used to positively identify Norse activity. Furthermore, Figure 67 suggests that it was not the viking-Norse at all, a group that at this time hailed from Western Norway, as viking-Norse activity concentrates in the Irish Sea and Northumbria, whilst Frankish territories are cited as interacting solely with the Dano-Norse. It is certainly possible that either Alcuin or the *ARF* (or both) were referencing viking-Norse raids, but the evidence is weak.

5.IV.4 Conclusion to Generation 1

There are two different groups being represented in the contemporary sources, which is supported by the archaeology and the literary evidence. A group from northern Scandinavia, likely the western coast of modern Norway, sailed across the open water of the North Sea and navigated south, where they raided across Northern Britain, Ireland, and the Irish Sea. This group(s) evidently raided for financial gain, with no indication that they intended to trade or settle in the area. The second group(s) relates to the Danish kingdom, in which its aristocracy and kings took place in diplomacy and military campaigns, both internally and externally. While vikings cannot be discounted as the perpetrators of pirate raids along the Frisian and the Gallic coasts, there is no direct evidence that suggests these groups were Norse in origin. The referenced pagans may have been understood to be any number of Germanic peoples operating in the North Sea at this time. It has also been suggested that Islamic forces – who were harrying the Franks in the Mediterranean - had sailed up into the Atlantic to attack the Franks along the Gallic coast. As such, the only confirmed Norse activity is divided by regional sources. When read together, it is clear that the Norse existed as two groups. As discussed in Chapter 1, scholars working in regional silos have failed to make this regional distinction due to the blinders of their national geographies. For example, David Griffiths recently published an article advocating for a proposed early Viking Age ‘southern route,’ wherein he claims that “Francia bore the brunt of attacks in the early ninth century,” and cites the strengthening of the coastal defenses in both Mercia (Kent) and Frankia as evidence for viking menace.[478] However, the arguments above suggest the opposite, particularly when one takes into account the high level of diplomatic relations between the Franks and the Danes, as well as the fact that the majority of raids are being recorded in the Irish Sea. One group raided in the British and Irish North Atlantic. The other group exercised diplomatic and military policy as a centralized Danish kingdom on the borders of the Frankish Empire.

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[477] Bernard S. Bachrach, *Early Carolingian Warfare: Prelude to Empire*, The Middle Ages, (Philadelphia: University of Pennsylvania Press, 2001), 249.

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[478] David Griffths, “Rethinking the early Viking Age in the West,” *Antiquity* 93 368 (2019), 470, https://doi.org/10.15184/aqy.2018.199.

5.V Generation 2: An Acceleration of Violence, 819-836

Below it will be demonstrated that while the Danish kingdom continued to stand as a strong kingdom, internal power struggles began to weaken its power and instead benefitted Carolingian rule. The sons of Godfrid, an indeterminate number of brothers who had seized power in the late 810s, continued to view the Carolingian Empire as an enemy state along its southern borders. On the other hand, their relative and rival claimant to the throne, Harald Klak, sought an alliance with Louis the Pious. The alliance was cemented by Harald Klak's conversion to Christianity, suggesting that the Danish State under his kingship would be one brought into the fold of a Christianized Western Europe.

The discussion will then turn to the viking-Norse raiding in Ireland (and likely Northern Britain and its islands). After a pause in raids, these attacks increased throughout the 820s and 30s, culminating in the first long-term encampment on the east coast of Ireland in 863/7 (Figure 69.) It is suggested that there were two reasons for the extreme targeting of Ireland over other areas during this period. First, the defenses in Ireland were weak. In the early English kingdoms in Britain and on the west coast of Frankia, royal fleets patrolled the seas and defensive measures were established to watch out for and safeguard against offensive forces – be they military or piratical in nature. Second, the viking-Norse groups were able to capitalize on the poorly defended Irish Sea trade, which linked Ireland and Northern Britain back to Scandinavia. As discussed above, the western Norwegian rulers and the Danish kings carefully oversaw what will henceforth be referred to as the Northern Arc Trade Network.

The term, ‘Northern Arc,’ is borrowed from Michael McCormick and his understanding of early medieval trading worlds across Europe and beyond. As envisioned by McCormick, the network centers around the North Sea, linking southern England and the Irish Sea with the Continent, Jutland and up along western Norway. From this center flows goods back and forth between the Middle and Far East, along the river networks of Eastern and Central Europe, into the Baltic, and back down through Western Europe into the Mediterranean.[479] It is argued below that one of the main goods exported from the Irish Sea into the Northern Arc Trade Network came in the form of slavery.

5.V.1 The Danish Kingdom and Outside Actors

When Harald Klak crossed the Danish border and sought refuge and aid from Louis the Pious in 814, he altered the geopolitical landscape between the Dano-Norse and the Frankish kingdoms. The change, however, was not immediately apparent; for the next nine years, Harald and the sons of Godfrid continued to struggle over control of the throne, until 823 when Harald found himself once again begging the Frankish emperor for support. Louis proved reluctant, and sent two of his nobles north into the Dano-Norse kingdom, where they “carefully studied the dispute… as well as the condition of the whole kingdom of the Norsemen, and informed the emperor of all they could find out in these lands.”[480] These ambassadors returned to Frankia with Archbishop Ebbo of Reims, who had apparently been in the Danish kingdom to convert and baptize the Danes, a task that is reported to have been met with considerable success. While Louis did agree to a peace with the sons of Godfrid and the Danish kingdom, Harald chose to be baptized in Mainz in 826 with his wife and a large number of his Danish retinue.[481] Louis not only granted the Dano-Norse royals the gift of baptism, but he also lavished on them gifts of gold, cloth, and other precious goods. Moreover, Louis granted him the county of Rüstringen; Harald Klak, who had assumed the role of a Christian, was "included in the social nexus of power in the Christian realm." Only as a Christian could he "be allowed to rule over small enclaves within Christian lands."[482]

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[479] McCormick, *Origins of the European Economy*, 606-12.
[480] Scholz and Rogers, *Carolingian Chronicles*, 114.

As discussed above, the Franks had previously used conversion and the process of Christianization as a means by which to subjugate and control the Saxons and other northern Germanic tribes. Louis did not appear to have the same expansionist ambitions as his father, and it is likely that he did not see a possible route to conquering the Dano-Norse territories based on the failed Frankish invasion in 815 and the reports in 823 from both his ambassadors and Archbishop Ebbo's mission. Instead, by baptizing Harald and giving him elaborate gifts, "Louis the Pious was effectively putting Harald in a position that demanded support for the emperor and his plans at a later date."[483] Louis did not see a way to subjugate and control the entirety of *Nordmannia*, but he sought to influence the Dano-Norse kings by making them subordinate to him. Harald needed military support, but Louis demanded that Harald conform to a Western European group-identity, one where Louis received his power from God, and Harald received his power from Louis. In this alliance, Harald – and therefore the Dano-Norse kingdom – could never be equal to Louis and the Frankish Empire.

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[481] Scholz and Rogers, *Carolingian Chronicles*, 119.

[482] Ildar Garipzanov, "Christian Identities, Social Status, and Gender in Viking-Age Scandinavia," in *Conversion and Identity in the Viking Age*, ed. Ildar Garipzanov and Rosalind Bonté, Medieval Identities: Socio-Cultural Spaces (Turnhout: Brepols, 2014), 145-6.

[483] Jón Viðar Sigurðsson, "Conversion and Identity in the Viking-Age North: Some Afterthoughts," in *Conversion and Idenity in the Vikinge Age*, ed. Ildar Garipzanov and Rosalind Bonté, Medieval Identities: Socio-Cultural Spaces (Turnhout: Brepols, 2014), 229.

Ultimately, Harald was not successful in his bid to take/retake the Dano-Norse crown. Scandinavian politics operated via social networks that began at the top with the Dano-Norse kings and was built on the ties to chieftains, and with chieftains down to householders, etc. Archaeological evidence from burials suggests that Scandinavia did not convert to Christianity en-masse until the tenth-century, and that the earliest Christian graves represent those of higher status.[484] This would indicate that while Harald's early conversion to Christianity behooved him in order to form an alliance with Louis, the act may have been met with anything from disinterest to intense resistance by the chieftains who he sought to rule over. Furthermore, by bringing the Franks into the Dano-Norse kingdom, Harald had shifted the mode of fighting. What had once been a limited form of warfare between rival royal groups had become something more destructive,[485] and which – Harald's loss suggests – was not supported by his chieftains. Harald's consolation prize was Rüstringen, a presumably Christian land in Frisia. He would never rule in his native Danish territories again.

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[484] Garipzanov, "Christian Identities, Social Status, and Gender," 162-3.

[485] Jón Viðar Sigurðsson, "Peace: How to Stop Fighting, Win Friends, and Influence People," in *Medieval and Modern Civil Wards: A Comparative Perspective*, ed. Jón Viðar Sigurðsson and Hans Jacob Orning, History of Warfare (Leiden, Boston: Brill, 2021), 201-2.

The next ruler of the Dano-Norse kingdom, Horic, understood the financial benefits of offering “terms of friendship and obedience,” to the Frankish emperor – or at the very least appearing to do so. In 836, Horic sent an embassy to dispute that the Dano-Norse kingdom supported a series of attacks on Dorestad and the rest of Frisia. He claimed to have captured and killed viking-Norse pirates for their raids on Frankish soil. Moreover, he sought payment for punishing them: “an amount equivalent to the blood-money for those Northmen.”[486] Such a statement suggests that the Dano-Frankish relationship had translated to one in which the Dano-Norse primarily sought financial gain. There is further evidence of this in a passage of Notker’s *Life of Charlemagne;* the monk records that the Norse sought baptism (often repeatedly) from the court of Louis the Pious in order to receive a set of valuable baptismal garments from the Franks.[487] On the one hand, Harald had converted as a means to gain a military alliance, and he was willing to submit to Louis as his overlord. On the other hand, Horic was motivated by material goods, and he saw no need to submit to the Franks.

To note: this 836 embassy reveals two important details for the period, especially regarding the proposed theory of two separate socio-economic Norse groups. First – and most obviously - that Horic makes a distinct claim that the Danish state is not behind any viking attacks occurring on Frankish soils. These were rogue groups with rogue leaders, who were committing crimes punishable under the common agreement of Danish law, whatever form that may have taken. Second,

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[486] Janet L. Nelson, *The Annals of St-Bertin*, Ninth-Century Histories, (Manchester and New York: Manchester Univerity Press, 1991), 35-6.

[487] Notker Balbulus, "Gesta Karoli Magni," ed. Hans F. Haefele, Monumenta Germaniae Historica, Scriptores rerum Germanicarum, Nova series, 12 (Berlin: Weidmann, 1959), 89-90.; Garipzanov, "Introduction: Networks of Conversion, Cultural Osmosis, and Identities in the Viking Age," 13.

Horic ultimately recognizes these men as Norse. There was no proof to suggest that pirates were active along the Frankish coast at the turn of the ninth century, but by 836 there is a clear recognition by both the Danes and the Franks that some, if not all, of the pirates attacking the northern Frankish coasts (i.e. Frisia and Saxony) were Norse. Figure 70 shows the emphasis of Norse diplomacy over conflict within the Frankish borders.

Despite little archaeological evidence to support the following theories, the historical sources paint a clear activity of Dano-Norse activity within their borders and in the territories of Francia. Chapter 2’s analysis of the geographic spread of the *AB,* from which these records are primarily drawn for this generation, reveals that Aachen is most-named location, while the activity focuses around what is today northeastern France, and locations further south were more likely to be geolocated than northern locations (see Figures 10 & 11). That there is such interest and focus in the Danish kingdom speaks to its geopolitical importance to the Frankish Empire.

This period of the Dano-Norse kingdom is characterized by civil war and infighting between the claimants to the Dano-Norse throne, as well as between actors of the state and those committing acts of piracy. It is clear, however, that the Dano-Norse state held strong against the Franks, and resisted any attempts by the Franks to interfere in Dano-Norse politics.

5.V.2 Escalating Raids in Ireland (and Northern Britain)

After an eight-year hiatus, the viking-Norse returned to Ireland in 821. They struck at Howth, a peninsula just north of what would only twenty-years later become their stronghold at Dublin. Significantly, the Irish Annals note that during this raid, the viking-Norse “carried off a great number of women into captivity.”[488] Raiding would increase in intensity throughout the 820s and 30s, culminating in the first long-term encampment at Annagassan in 836/7. It is likely that Northern Britain and the islands of Scotland were also targeted, despite the lack of surviving records, whilst only two raids are recorded in the English kingdoms during this period: in 835 Sheppey was attacked, and in 836 the viking-Norse gained a victory over the early English at the battle of Carhampton.[489]

It is here argued that Ireland was targeted for two main reasons: (1) Irish defenses were weak, and its people lacked coordinated efforts by the provincial high kings to deter Norse attacks. The fractured kingdoms of early medieval Ireland were an easy target compared to the territories ruled over by the early English kingdoms and the Frankish Empire. (2) The viking-Norse sought to capitalize on the Irish Sea trade and link this route to the previously defined Northern Arc Trade Network. Given the lack of archaeological material linking Scandinavia to the Irish Sea before the early ninth century, it is likely that contact between the two regions had been limited. Specifically, it is proposed that the viking-Norse saw an opportunity to develop a large-scale slaving operation, linking slaves from the Irish Sea to the silver that had started to arrive in great quantity into the Baltic Sea from the Middle East and Central Asia.

Early medieval Irish kingship proved complicated and divisive. According to Clare Downham, between the fifth and 12th centuries, there could be more than 150

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[488] AU 821.3

[489] Swanton, *The Anglo-Saxon Chronicle*, 62, 63.

túatha (small but distinct communities with their own king, church, poet, and ecclesiastical scholar) coexisting on the island at any one time. Each *túath* (singular of *túatha*) was subject to an over-king, who in turn owed allegiance to provincial over-kings.[490] The non-urban, kin-based, and highly localized economy based itself around the ownership of cattle, and both petty- and over-kings relied on the collective wealth of farming and herding.[491] When the viking-Norse arrived at the end of the eighth-century, the provinces of Ireland included Munster, Leinster, Ulster, Connacht, Mide, Brega, and a northwest territory controlled by the Uí Neill dynasts.[492] In mapping the royal centers of the early medieval period, Patrick Gleeson revealed distribution patterns that show centers of power clustering in the central- and north-east, with no coastal royal sites.[493] Despite the geographical reality of existing as an island, it is important to acknowledge just how *insular* the political landscape of Ireland truly was at this period. These were kings who looked inwards, and likely did not expect any large-scale attacks from across the sea.

That is not to say that the early medieval Irish were completely foreign to the idea of sea travel and raiding. *AFM* cites the presence of Irish fleets in 612 and 728, whilst the early English writer Gildas recorded Irish warriors attacking British coasts using single-occupancy coracle boats.[494] However, when the viking-Norse longships arrived in Ireland, it is clear that this type of ship technology was completely unknown to the Irish, and Downham suggests that Irish kings may have been inspired by the Norse fleets "to improve their own naval capacity not only against vikings but also in the field of interprovincial warfare."[495] Yet, even prior to the arrival of the Norse, there are references to the construction of defenses and fleets in order to safeguard the shores of southeastern Britain and the Gallic Coast against pirate and potential military attacks.[496] Indeed, Poul Holm goes so far as to refer to Ireland as "somewhat of a backwater," in comparison to its Atlantic European neighbors.[497] Simply put, the Irish were not prepared.

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[490] Clare Downham, *Medieval Ireland* (Cambridge: Cambridge University Press, 2018), 81-113.
[491] Valante, *The Vikings in Ireland*, 15, 23-5.
[492] Downham, *Medieval Ireland*, 81-113.
[493] Patrick Gleeson, "Constructing Kingship in Early Medieval Ireland: Power, Place and Ideology," *Medieval Archaeology* 56, no. 1 (2012/11/01 2012), https://doi.org/10.1179/0076609712Z.0000000001, https://doi.org/10.1179/0076609712Z.0000000001.
[494] *AFM* 612, 728; T. M. Charles-Edwards, "Irish warfare before 1100," in *A Military History of Ireland*, ed. T. Bartlett and K. Jeffrey (Cambridge: Cambridge University Press, 1196), 27.

It should also be noted that the Norse changed the landscape of warfare in Ireland. Andrew Halpin has studied the way that weaponry evolved between the eighth- and tenth-centuries. Before the arrival of the Norse, Irish foot soldiers fought with a small round shield and a spear, while the elite fought on horseback using swords. Following Norse encounters, the battle-axe became more common, as it was well-suited to close combat, and was cheaper to manufacture than swords. In addition, archery took on a greater role, and arrowheads developed to pierce armor, suggesting that the Norse wore different protective gear than their Irish opponents.[498] The Norse did not necessarily bring superior technology to Ireland, but they certainly introduced new ideas and tools to the island.

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[495] Downham, *Medieval Ireland*, 81-113.

[496] Scholz and Rogers, *Carolingian Chronicles*, 78.; *ARF* 800: "[Charlemagne] himself left the palace of Aachen in the middle of March and traversed the shore of the Gallic sea. He built a fleet on this sea, which was then infested with pirates, set guards in different places, and celebrated East at St.-Riquier in Centulum."

[497] Poul Holm, "The Slave Trade of Dublin, Ninth to Twelfth Centuries," *Peritia* 5 (1986): 326.

[498] Andrew Halpin, "Weapons and warefare in Viking-Age Ireland," in *The viking Age: Ireland and the West*, ed. John Sheehan, Donnchadh Ó Corráin, and Shannon Lewis-Simpson (Dublin: Four Courts Press, 2010), 124-5, 26, 29-32.

Ireland and the Irish Sea possessed portable wealth, which did not yet have a direct connection into the Northern Arc Trade Network. After the exploratory raids of Generation 1, the viking-Norse returned to the Irish Sea region in order to raid and/or trade for goods. Jet from the Irish Sea has been recovered from layers dating to the first decades of ninth century at Kaupang in the Oslo fjord.[499] Lead from mines in Cumbria or the southern Pennines, as well as from Scotland, has also been found in the stratigraphy of Kaupang, and the contextual and stylistic analysis dates these finds through the entirety of the ninth century.[500]

The item of greatest economic importance, and likely one of the primary reasons for the escalating raids in Ireland in the 820s and 30s, was slaves.[501] It is nearly impossible to understand the full extent of slavery in Atlantic Europe during the Viking Age. Stefan Brink cites his own (self-admittedly) failed attempt to define early medieval Scandinavian slavery due to the peripheral nature of the written sources: Arabic travelogues, Atlantic European annals and chronicles (as used in this project), and the hagiographic accounts of missionaries to Scandinavia. The evidence is thus “meagre, often implicit, difficult to interpret and sometimes contradictory.”[502] Moreover, in regards to archaeology, “it is more or less impossible to excavate slavery.”[503] As such, this study will not investigate questions of identity for early medieval slaves, nor can it be clear how many slaves were traded throughout different lines of the Northern Arc Trade Network. We know only that slaves were traded along these routes. Arabic sources are rife with references to Scandinavian Rus and their common appearance at eastern slave markets.[504] Icelandic DNA analysis, cited previously, has shown that the majority of the female line arrived from Ireland and Britain, and this has led scholars to suggest that these women arrived as chattel.[505] Therefore, it is enough to know that slavery existed, and that the viking-Norse were active participants in slave raiding.

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[499] Skre, "From Kaupang and Avaldsnes to the Irish Sea," 238-9.

[500] Pedersen, *Into the Melting Pot: Non-ferrous Metalworkers in Viking-period Kaupang*, Kaupang Excavation Project 4, 62-3.

[501] Holm, "The Slave Trade of Dublin, Ninth to Twelfth Centuries."

[502] Stefan Brink, "Slavery in medieval Scandinavia: Some points of departure," in *Viking-Age Trade: Silver, Slaves and Gotland*, ed. J. Gruszczyński, M. Jankowiak, and J. Shepard (Online | London: Routledge, 2020), 45.; in reference to: Stefan Brink, *Vikingarnas slavar: den nordiska träldomen under yngre järnålder och äldsta medeltid* (Stockholm, 2012).

[503] Brink, "Slavery in medieval Scandinavia," 45.

I am in agreement with Holm, who argues for a ‘minimal theory’ for early viking-Norse slavery. He suggests that the hit-and-run tactics may have allowed for slave raiding, but they were not conducive to any large-scale operations.[506] This ‘minimal theory’ is reflected in the flow of silver east to west. If a large percentage of these slaves were traveling along the Northern Arc Trade Network, from the North Sea to the Baltic, and down the river routes to the Middle and Far East, it stands to reason that the Norse were trading slaves for silver. Christoph Kilger has tracked the dirham network into Europe. Following Phase I (*tpq* 770-90), with its initial flow of eastern silver into the Caucuses, Phase II (*tpq* 790-825) oversaw silver dirhams beginning to reach Eastern Europe c. 790-825. During Phase III (*tpq* 825-60), these silver dirhams began to flow into the Baltic area at both high volume and high velocity.[507] Unfortuantely, it is difficult to understand how the hoards themselves, which were analyzed in Chapter 3, reflect this early period. It is possible that the high number of dirham-holding hoards that were found around Dublin and across the ‘Cuerdale Cooridor’ reflect the entrenchment of the slave trade. I suggest that Phase III is a reflection of the beginning of the viking slave trade. Following early small-scale raids, the viking-Norse traded these slaves along the Northern Arc Trade Network. By the 830s, the Norse were able to see their profits in action, which would drive them to increase their interest in Ireland and the Irish Sea, leading to strong-trade links between this Norse group and those which carried eastern silver into the Baltics.

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[504] William E. Watson, "Ibn Rustah’s Book of Precious Things: A Reexamination and Translation of an Early Source on the Rus," *CSS* 38, no. 3 (2004), https://doi.org/10.1163/221023904X00872.; William E. Watson, "Ibn Al-Athair’s Accounts of the Rus: A Commentary and Translation," *CSS* 35, no. 4 (2001), https://doi.org/10.1163/221023901X00037.

[505] Agnar Helgason et al., "Estimating Scandinavian and Gaelic Ancestry in the Male Settlers of Iceland," *Am J Hum Genet* 67, no. 3 (2000), https://doi.org/10.1086/303046.; Helgason et al., "mtDNA and the Islands of the North Atlantic: Estimating the Proportions of Norse and Gaelic Ancestry."

[506] Holm, "The Slave Trade of Dublin, Ninth to Twelfth Centuries," 322.

[507] Kilger, "Kaupang from Afar," 211-28.

With the Dano-Norse kingdom in control of the western Baltic, and thereby controlling access to the Central European river networks down to the Middle East and Central Asia, the Northern Arc Trade Network was now effectively operating from the Irish Sea to Baghdad. The viking-Norse raids in the Irish Sea connected the pirates/traders to what Dagfinn Skre has termed the *Norðvegr*, which ran along the western coast of the Scandinavian Peninsula.[508] From there, the *Norðvegr* line connected to the routes controlled by the Dano-Norse kingdom, and specifically to the nodal *emporia* of Ribe, Hedeby, and Kaupang. It is possible that the consolidation of power by the western Norwegian chieftains and kings, which began in the 780s, reached a climax in the 820s and 830s. As those leaders who had been ‘pushed’ abroad began to realize the profits they could generate on these raiding expeditions, more and more raiders were then ‘pulled’ to the Irish Sea.[509]

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[508] Skre, "Norðvegr - Norway: From Sailing Route to Kingdom."
[509] Baug et al., "The Beginning of the Viking Age in the West," 67-8.

By the second-half of the 830s, the viking-Norse had begun to set up camps allowing them to remain in Ireland for extended periods of time.

The written evidence shows an acceleration of violent attacks on Ireland, with a focus primarily along the east coast of the island. Raids are shown to continue in the west as well, but more strikingly, there are attacks further inland, suggesting that the Norse were becoming increasingly confident navigating the rivers and lakes of Ireland. Although there is only one reference to an attack in Scotland, on Iona in 825, archaeological evidence indicates that the north of Britain was not spared from Norse aggression. As discussed in Chapter 4, the majority of Atlantic European Norse graves are located within Ireland and Scotland, and several have been identified in Cumbria and York, in the north of England. While it is unlikely that southern Britain was spared from viking-Norse aggression, especially along the west coast in Wales and Cornwall, the lack of textual and archaeological evidence would imply that the viking-Norse focused their efforts on Ireland and Northern Britain.

5.V.3 Conclusion

Generation 2 continues a pattern of clear division between the two Norse groups at play within Atlantic Europe. The Dano-Norse continued its struggle against the Carolingian kingdom, with the added pressure of a Danish royal willing to convert and bring the Danish kingdom into the fold of Christian Europe. With Harald Klak's failure to take the Danish throne, his conversion was rewarded with a Frankish-held territory, and Louis the Pious was forced to contend with a group of rulers who would not easily bend to his will. Across the sea, the viking-Norse renewed their efforts on Ireland, which was politically unified and therefore did not have a system of defenses equal to rebelling large-scale Norse attacks. The raids increased as the viking-Norse realized the profit they could generate from the slaves they reeved throughout the Irish Sea. This resulted in the establishment of the first long-term ship camp in Ireland at Annagassan in 836/7.

5.VI Generation 3: Royal Involvement in viking Raids, 837-860

It is during this third generation of Norse activity that the lines between the viking- and the Dano-Norse begin to blur. As the viking-Norse raiders establish regular inflows of Irish Sea and Northern British goods (inclusive of slaves) into the Scandinavian trade network, these groups create a series of semi- and permanent encampments at Dublin and around other key locations in the Irish Sea. It is argued that the Danish King Horic and other petty Norse kings begin to take a vested interest in these pirate colonies from the late-840s/50s in an attempt to control the trade routes. This can be understood in the Irish Annals as the fight between the *finn-* vs. the *dubhgael,* wherein two separate Norse groups are fighting for control of the ship camps. Moreover, King Horic sees the advantages of raiding, and uses his royal fleet – or ships that can be directed under royal oversight – to blitz Frankish held territories. However, following Horic’s murder and the ensuing civil war, the Danish kingdom collapses, creating a power vacuum that sets the scene for the activity of Generation 4.

In this section, it is proposed that the Dano-Norse kingdom, and by extension the kings/earls/chieftains of the outlying Scandinavian territories, began to take an active interest in the viking-Norse campaigns across Western Europe. King Horic had taken control of the Dano-Norse kingdom following the contentious struggles between the Godfridssons and Harald Klak. In his own bid to secure power, he presented himself to Louis the Pious as a peaceful ruler and a cooperative neighbor. Throughout the 830s, he did his utmost to preserve positive diplomatic relations between his kingdom and the Carolingian Empire. However, following the death of Louis the Pious in 840 and the Carolingian civil war that followed, Horic's tactics changed dramatically, and he began to send military campaigns to raid across the fractured kingdoms. The Dano-Norse kingdom would descend into civil war itself in 850, and again in 854 when Horic was killed. Between 837 and 860, viking-Norse groups raided across Ireland, Britain, the west coast of Frankia, down around the Iberian Peninsula, and on the northern and southern shores of the Mediterranean. A Norse group found themselves presented at the Byzantine court, where they identified as Rus, an eastern branch of the Norse peoples. Not only were they traversing further afield, but it was during this period that they began to settle in the lands they were raiding. Both semi- and permanent encampments are recorded in the sources throughout Ireland, the Scottish islands, in south-eastern England, and along the Frankish coast up into Frisia (Figure 71.) Furthermore, a large number of Norse graves in Ireland and northern Britain can be dated to this period, corroborating the theory that settlement began in earnest during this generation of activity (Figures 58 & 59.)

5.VI.1 Successions, Civil Wars and Power Vacuums

In the last decade of Louis the Pious's reign, Horic made a concerted effort to establish and maintain peace between the Carolingian Empire and the Dano-Norse kingdom. Despite internal struggles, the Carolingian Empire remained a strong and united entity, one that Horic knew he could not meet head-on. Both contemporary scholars and later historians have had a tendency towards viewing the last years of Louis's reign negatively, and the king himself as weak.[510] From 829 until his death in 840, there were three main struggles between the emperor and his magnates, inclusive of his deposition in 833. Despite these internal troubles, the kingdom - which had expanded so (too?) rapidly under Charlemagne - remained whole, and Louis was determined to keep the empire united following his own death. In the *Ordinatio Imperii* of 817, Louis was explicit that while his younger sons were kings of Italy, Aquitaine, and Bavaria, they would be subordinate to their eldest brother Lothar as emperor.[511] Thus, in a bid to keep the Frankish king placated, Horic sent envoys to Louis in 836, 837, and 839 vigorously denying any involvement in the viking-Norse raids occurring along the Frankish coasts, and even went so far as to punish the raiders himself. [512] Horic's first and foremost goal appears to have been to ensure that the Franks had no reason to send military forces north.

However, in the 840s the differentiation between the Dano-Norse and the viking-Norse becomes muddled, and perhaps completely indistinguishable. Horic's diplomacy towards the Carolingian Empire shifted dramatically following Louis's death and the subsequent civil war that followed. Following the partition of the Carolingian Empire as a result of the 843 Treaty of Verdun, Horic sent a naval fleet into Saxon/Slavic territories and captured the *civitas* of Hamburg in 845.[513] The 845 campaign sits alongside several other references to viking-Norse naval activity. Horic is said to have commanded 600 ships during his offensive on the Elbe, suggesting that the Danish king himself led a military campaign into the Frankish territories. This would have been the first such foray by a Danish king since Godfrid's campaign roughly 40 years prior. Also in 845, Norse fleets sailed 120 ships up the Seine to Paris, after which they sailed back to the Channel and "devastated all the coastal regions, plundering and burning," before finishing their attack at Saintonge in Aquitaine.[514] While it is unclear as to whether Horic oversaw the latter fleet, he no longer sent embassies to the Frankish kings to assure them that he had no part in the raids.

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[510] For a summary, see: McKitterick, *The Frankish Kingdoms under the Carolingians, 751-987*, 169.
[511] McKitterick, *The Frankish Kingdoms under the Carolingians, 751-987*, 136.; Costambeys, Innes, and MacLean, *The Carolingian World*, 202.; While he later went against his own agreement by making provision for his youngest son, and disinheriting his grandson. However, all younger sons were still meant to be subordinate to Lothar.
[512] Nelson, *The Annals of St-Bertin*, 35, 40, 47.
[513] Nelson, *The Annals of St-Bertin*, 61.

I propose that Horic was utilizing the viking-Norse style of raiding in order to achieve hegemonic control over Frisia, Saxony, and the Slavic territories once held by the Franks, as well to enrich his kingdom by plundering portable wealth. Viking-Norse pirates had struck along the Frankish coast and down to the Iberian Peninsula in the early 840s, though these appear to be an extension of the exploratory and opportunistic raids that characterized early activity in Ireland and Britain. However, following the partition of the Carolingian Empire into three separate kingdoms, Horic appears to have decided that pirate raids were beneficial to his rule. After the 845 seizure of Hamburg, in 846 the Norse "extracted as large a tribute as they wanted and… gained control of nearly the whole province [of Frisia]."[515] This would suggest that Horic's raids could not be defined as viking-Norse in themselves, but that the king adopted their style within a system of organized military campaigns.

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[514] Nelson, *The Annals of St-Bertin*, 60-2.
[515] Nelson, *The Annals of St-Bertin*, 62-3.

The Norse spent the 840s and the 850s targeting the west coast of Frankia. While the historical sources record these repeated attacks, the results from the Frankish mints in Chapter 3 show that the mints begin to pull eastwards away from the coast during the rule of Charles the Bald, which demonstrates the severity and the regularity of viking-Norse offensives (see the difference in Figures 29/30 & 31/32.) The distribution patterns from Chapter 3 also suggests that hoarding in western Frankia began in earnest during this period, parallel to the retreating of the mints (Figures 44 & 45,) which further speaks to the economic and political disruption brought on by the Norse raids. The plundered territories were held by Charles the Bald, who ruled the western Frankish kingdom after the 843 Treaty of Verdun. This western assault was both political and opportunistic. First, it served both Lothar and Louis the German, who ruled the central and eastern kingdoms respectively, to redirect Norse groups away from their territories and into the land held by their younger brother. Lothar himself utilized the Norse for his own benefit, offering and withholding alliances with Dano-Norse nobility in order to further the political fragmentation within both Frankia and the Dano-Norse kingdom. This central kingdom was largely left to its own devices. Charles the Bald and Louis II bore the brunt of viking-Norse incursions, and it is likely that Lothar and his son Lothar II maintained their security because they were prepared to accept that Danish and viking groups were seeking to settle permanently within their lands.[516] Second, by moving further south down the Frankish coast - not just focusing on Frisia but harrying and setting up encampments in Normandy and Brittany - this gave Norse groups better access to the southeast coast of Britain. In 841, viking-Norse fleets made their first (recorded) foray down the Seine River, where *AB* reports they attacked Rouen and took monks captive from Jumièges.[517]

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[516] Sawyer, *Kings and Vikings: Scandinavia and Europe, AD 700-1000*, 87.

The east coast of southern Britain was also harried that year, with the *ASC* recording attacks in Kent, East Anglia, Lindsey, and Romney Marsh.[518] Given the proximity of the mouth of the Seine to these locations, the mapping would suggest that the English raids were undertaken by either the same or a related group. Similarly, cross-channel raids occurred in 842 with attacks in London, Rochester, and Canterbury in England, and Quentovic in Frankia. In 843, the raids on Carhampton, Nantes, Noirmoutier, and Aquitaine were also likely undertaken by the same fleet (Figure 72.)

Confident in his reach, it is here suggested that by the end of the 840s Horic turned his sights to the Irish Sea, and attempted to establish control over this arm of the Northern Arc Trade Network. By 847, word had reached the continent that viking-Norse groups had made significant inroads into Ireland. The Frankish court was well aware of it, with *AB* recording: "The Irish who had been attacked by the Northmen for a number of years, were made into regular tribute-payers. The Northmen also got control of the islands all around Ireland, and stayed there without encountering any resistance from anyone..."[519] The Frankish sources here again clearly spell out the financial gain motive for Norse expansion: the native Irish had been reduced to tribute-payers on their own land. It should be noted that there is no corroborating evidence for this in the Irish Annals. Between 845 and

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[517] Nelson, *The Annals of St-Bertin*, 49-52.
[518] Swanton, *The Anglo-Saxon Chronicle*, 62, 64.
[519] Nelson, *The Annals of St-Bertin*, 65.

850, the Irish sources mention many battles between the Irish and the viking-Norse, but none that appear to have a definitive outcome. However, it is clear that from 836, with the foundation of a permanent encampment at Annagassan, the viking-Norse were intent on staying. They set up more camps as the years went on. In 839 the viking-Norse set up camp at Lough Neagh,[520] in 841 Dublin was founded,[521] and encampments were created in 842 at Rosnaree, Linn Sailech, and Lough Erne,[522] in 845 at Killeagh and Limerick,[523] and in 860 at Waterford.[524] By the end of the 840s, Horic's territorial holdings stretched from the southern Scandinavian Peninsula into Saxony, and he had strong diplomatic ties to Vestlandet and Trøndelag. It is not outside the realms of possibility that the Dano-Norse kings planned to send an army to Ireland in order to benefit from the profits to be made from the island.

I propose that the following entry from *AU* should thus be read as an invasion of Ireland under the directive of King Horic in 849: "A naval expedition of seven score ships of adherents of the king of the foreigners came to exact obedience from the foreigners who were in Ireland before them."[525] It has been suggested that the 'king of the foreigners' was that of a Norwegian ruler, whose kingdom is referred to in the Irish sources as *Laithlind* and/or *Lochlann.*[526] While the passage in 849 does not make a specific mention to *Laithlind/Lochlann,* in 848 Irish forces were defeated in a battle against a Norse jarl, who was said to be the heir apparent of the king of Lochlann.[527] Furthermore, Ólafr, son of the king of Lochlann, would arrive in Ireland in 853, at which time "the foreigners of Ireland submitted to him, and he took tribute from the Irish."[528] As such, scholars are in general agreement that the king who sent troops to Ireland in 849 was the same king who had already placed a jarl in Dublin, and who would send his son to take control in 853. However, the references to Norse kings are distinctly different between 849 and 853, namely that the Irish sources reference *the king of the foreigners*, which is arguably different from *the king of Lochlann*.

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[520] AU 839.7
[521] AU 841.4
[522] Rosnaree: AU 842.8, AFM 841.12; Lough Erne: ; Linn Sailech
[523] Killeagh: AU 845.12, AFM 843.10; Limerick: AU 845.1, AFM 843.12
[524] AFM 859
[525] AU 849.6
[526] For discussion, see: Wamers, "Insular Finds in Viking Age Scandinavia and the State Formation of Norway," 71.; Colmán Etchingham, "*Laithlinn* 'fair foreigners' and 'dark foreigners;: the identity and provenance of Vikings in ninth-century Ireland," in *The Viking Age: Ireland and the West: Papers from the Proceedings of the Fifteenth Viking Congress, Cork, 18-27 August 2005*, ed.

This adds fuel to the exhaustive debate surrounding the meaning of *Finn* ("white" or "fair") and *Dub* ("black" or "dark"), which contemporary and later Irish sources used to differentiate between two viking groups that were present in Ireland during the early Viking Age. The discussion surrounding definition and labelling of the different groups has been quite succinctly summarized by Clare Downham's paper, "Viking identities in Ireland: it's not all black and white,"[529] Alfred Smyth argued for translations referring to the *Finn* as an older Norwegian group and the *Dub* as a

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Donnchadh Ó Corráin and John Sheehan (Dublin: Four Courts 2010), 84.; Clare Downham, "Viking identities in Ireland: it's not all black and white," in *Medieval Dublin XI: Proceedings of the Friends of Medieval Dublin Symposium 2009*, ed. Séan Duffy (Dublin: Four Courts Press, 2011), 190.; Donnchadh Ó Corráin, "The Vikings in Scotland and Ireland in the ninth century," *Peritia* 12 (1998), https://doi.org/10.1484/J.Peri.3.334.; Anders Ahlqvist, "*Is acher in gaíth... úa Lothind*," in *Heroic poets and poetic heroes in the Celtic tradition: CSANA Yearbook 3-4*, ed. J.F. Nagy and L. E. Jones (Dublin: 2005).; Smyth, *Scandinavian kings in the British Isles, 850-880.*; Mary A. Valante, *The Vikings in Ireland: Settlement, Trade, and Urbanization* (Dublin: Four Courts Press, 2008), 69-71. Table of contents only http://www.loc.gov/catdir/toc/fy0905/2009358982.html.; Valante asserts that the 849 inter-Norse attack was undertaken by "distant kings or chieftains from western Norway," while the 851 represented "a different group, possibly of Danes."

[527] AU 848.5

[528] AU 853.2

[529] Downham, "Viking identities in Ireland: it's not all black and white."

new Danish group,[530] David Dumville responded that the *Finn* and *Dub* simply referred to newer and older groups unattached to regional homelands,[531] and Colmán Etchingham countered that the *Dub* referred to Danes, while the *Finn* referred to Norwegians after all.[532] Downham herself argues that the labels can be associated with the followers and descendants of two of the first three reigning kings who co-ruled Dublin from the 850s-870s: Ólafr and Ívarr.[533]

It is argued that the use of *Finn* and *Dub* can be used as evidence to support the theory that the 849 *king of the foreigners* is Horic, whilst Olafr's father, referenced in 853 as *the king of Lochlann,* are two separate kings. In 851, the *Dubgall* arrived in Dublin and slaughtered the *Finngall*. It is clear that the *Finngall* were the group that was there first, with the *Dubgall* arriving second, which supports the hypotheses of Smyth and Dumville. Based on patterns of activity observed during the deep mapping process, I contend it is just as likely that the *Finngall* can be aligned with a group that primarily (or hereditarily) hailed from the west coast of Norway, and the *Dubgall* travelled from Denmark, in agreement with Smyth and Etchingham (Figure 73.)

The king of Lochlann was able to send his son to conquer the Norse in Ireland only because the Dano-Norse war descended into civil war in 850. The Frankish sources report that a coup was led by Horic's nephews, with the result that the Dano-Norse kingdom was partitioned (much as the southern Frankish kingdoms had been).[534] In 854, Horic was murdered, and the kingdom, which had never been stable, descended into civil war. Horic II is mentioned as king in 857, but the civil war continued as Roric (likely a descendent of Harald Klak) sailed from his center of power at Dorestad to claim the Dano-Norse throne with the backing of Lothar. Roric and Horic agreed to partition the Dano-Norse kingdom.[535] As such, the Dano-Norse kingdom cannot be thought of as a centralized state after this point. The hierarchy crumbled as heirs from the royal line fought for power. The Dano-Norse *emporia* of Kaupang, Dorestad, and Quentovic all began to decline. The Danish rulers lost control of their resources, as can be seen by the seizure of Dublin by the king of Lochlann. Territorial holdings began to fracture. Just as pressures of the south plausibly contributed to the consolidation of the Dano-Norse state, when the Carolingian Empire splintered so too did the kingdom to its north, no longer held together by a need for political unity.

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[530] Smyth, "The Black Foreigners of York and the White Foreigners of Dublin."
[531] Dumville, "Old Dubliners and New Dubliners in Ireland and Britain: a Viking-Age Story."
[532] Etchingham, "Laithlinn, 'fair foreigners' and 'dark foreigners':."
[533] Downham, "Viking identities in Ireland: it's not all black and white."

With the collapse of the Dano-Norse kingdom, a power vacuum opened up, not just in southwest Jutland, but further north into the previously Dano-Norse-held Oslo fjord, and it disrupted the balance of power in the western region of Norway. The consequences of the collapse of the Dano-Norse kingdom resulted in the growth of the Norse holdings in the Irish Sea region, and it set the scene for the launch of a major invasion in the early English kingdoms and Frankia.

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[534] Nelson, *The Annals of St-Bertin*, 69.
[535] Reuter, *The Annals of Fulda*, 39-40.

5.VI.2 A note on settlement in Ireland

By the end of the 830s, the viking-Norse raiders began to extend their raiding trips in the Irish Sea and set up semi- and permanent encampments in strategic border zones throughout the island. According to the Irish Annals, viking-Norse raids on churches peaked in Ireland in the 830s, before declining in the 840s and dropping to one or two a decade throughout the rest of the ninth century.[536] That is not to say that violent activity in Ireland declined, but the target appears to have altered. Proportionately, there are more references to skirmishes and battles between Norse and Irish groups, and less hit-and-run raids on monastic establishments. To view a map of historical activity in Ireland, including the extensive Norse settlements, see Figure 74.

As discussed above, the first mention of a long-term encampment, referenced in the Irish sources as *longphuirt* (plural*;* singular: *longphort*), occurs in 836 when the Irish Annals make reference to a group 'of/from Inber Dea [Annagassan].'[537] Eight more *longphuirt* are mentioned by the sources between 841 and 860. A further Norse settlement is named in 853 as *Innsi Gall*, which would come to mean a territory covering the Isle of Man and the Hebrides during the tenth and eleventh centuries.[538] While there are no contemporary textual references to *longphuirt* or other ship camps here, archaeological evidence – inclusive of Norse Viking Age burials – does suggest that the Norse were settling in the area later known as *Innsi Gall*, as well as throughout the coastal regions of Scotland (Figure 73b).

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[536] Sawyer, *Kings and Vikings: Scandinavia and Europe, AD 700-1000*, 84.; See Sawyer's table: "Number of Viking raids on churches reported in the *Annals of Ulster* by decade"
[537] AU 836.5
[538] Downham, *Viking kings of Britain and Ireland: the dynasty of ́Ívarr to A.D. 1014*, 178-79.

The intervention of the Dano-Norse kingdom in Irish politics has been discussed above. I therefore suggest that it is possible that the encampments were not settled by rogue, opportunistic groups, which were prevalent in Ireland up through the 830s, but that they were a colonial prospect founded by a regional king in either Vestlandet or Trøndelag. A jarl of the king of Lochlann was killed by Irish forces in 848,[539] indicating that even if the rulers in the territories of western Norway weren't behind the foundation of the encampments, they at least became interested by the 840s. The goods coming from the Irish Sea were too valuable to be left in the hands of independent forces.

Encampments were strategically located, straddling the boundaries between Irish territories, which allowed the Norse to play off old rivalries.[540] This meant that the Norse could raid in one kingdom and sell off their plunder to a neighboring, rival kingdom. For example, Dublin lay between Brega and Laigin on the River Liffey. When the viking-Norse set up their encampment there, they knew exactly who their neighbors would be. Moreover, due to the nature of the viking-Norse raids being completely ship-based, these encampments were set up on the coasts of the Irish and North Seas and along the major river networks of Ireland. These sailing networks offered a direct route to inland Irish territories, where the viking-Norse could continue to raid and also find new trading partners.

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[539] AU 848.5

[540] John Sheehan, "The longphort in Viking Age Ireland," *Acta archaeologica* 79, no. 1 (2008): 286, https://doi.org/10.1111/j.1600-0390.2008.00120.x.

Settlement was possible due to the formation of political alliances with native Irish tribes and kingdoms.[541] The first reference to a Hiberno-Norse alliance occurs in 850, when the Norse allied themselves with the Cianacht, a kingdom in the mid-east of Ireland, against the powerful northern Uí Néill.[542] In 854, a group in Munster are punished by the High King because “they had given him opposition at the instigation of the foreigners,”[543] and in 859 the kings of Dublin have allied with the king of Ossary against Meath.[544] In 860, the king of Ossary battled against a Norse group, which had set up an encampment at Port Lairge (Waterford);[545] considering his alliance with the kings of Dublin the previous year, it is possible that the Irish king was attacking a rival Norse group in aid of his own Norse allies.

The Norse were making themselves indispensable to the Irish, not only as allies in war, but it is around this time that silver began to enter Ireland. The importation of silver and other luxury goods may have proven to be a powerful incentive in allowing the Norse to stay.

5.VI.3 Conclusion

Between 837 and 860, the Dano-Norse kingdom changed its diplomatic policies with its southern neighbor following the break-up of the Carolingian Empire. Horic attempted to expand his territories into Frisia and Saxony, as well as gain control over the Irish Sea Route within the Northern Arc Trade Network. The Norse had managed to establish encampments in Ireland, and their lasting success was due to strategic placement along the borders of Irish kingdoms and political alliances with several Irish kings. However, Horic's ambitions were cut short by an attempted coup within the Dano-Norse kingdom in 850, followed by his murder in 854. Without strong leadership, the Dano-Norse kingdom collapsed, creating a power vacuum, which set the stage for the Great Heathen Army in England and Frankia, the growth of Norse colonies in Ireland, and the struggle for power in Norway.

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[541] For further discussion, see: Colmán Etchingham, *Viking Raids on Irish Church Settlements in the Ninth Century: A Reconsideration of the Annals*, Maynooth Monogaphs, (Maynooth: The Cardinal Press, 1996).; Harold Mytum, "The Vikings and Ireland: Ethnicity, Identity, and Culture Change," in *Contact, Continuity, and Collapse: The Norse Colonization of the North Atlantic*, ed. James H. Barrett, Studies in the Early Middle Ages (Turnhout: Brepols, 2003), 121-22.
[542] AU 850.3
[543] AFM 852.3
[544] AU 859.2; AFM 857.6
[545] AFM 858.6

5:VII Generation 4: Territorial Expansion, 861-90

After a generation of blurred divisions between state campaigns and independent pirate raids, it is proposed that the Norse again divide into two distinct groups. However, following the collapse of the Danish kingdom, these groups can no longer be defined by their origin, but are instead assigned names based on the locality of their activity.

I begin with the *Channel Army*. It suggested in section above that the death of Horik in 854 served as the catalyst for a major shift in the means and motivations of the Norse during the Viking Age. As members of the Dano-Norse royal family vied for the throne, the civil war(s) destabilized the power structures throughout Scandinavia. At the same time that the Dano-Norse state was declining, the later Icelandic kings' sagas suggest that Harald Fairhair solidified a kingdom in the southwest of Norway, in Vestlandet, around the year 850.[546] Circumstantial evidence for this disruption can be found throughout the North and Baltic Seas. For example, the character of Kaupang, located in the Dano-Norse held Oslo fjord, changed in 860. Construction of new buildings ends at this date, and activity slows until it disappears between c. 930-960.[547] The flow of silver from the Middle East to the Baltic and into Scandinavia began to decline in the 870s, before nearly ceasing completely in the 880s.[548] Iceland was colonized by groups primarily from the western region of Norway. There is evidence for occupation by the Norse prior to the so-called Settlement Period c. 870-930, though the majority of the land taking would occur during these sixty years.[549] Given the evidence above, I suggest it was during this period that leaders and their retainers were pushed out of an evolving political landscape, mirroring what occurred during Generation 1 and the raids in Northern Britain and the Irish Sea.

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[546] Krag, "The creation of Norway," 646-7.

The Channel Army has been traditionally perceived as a primarily English phenomenon, where *ASC* referred to it as the 'Great Heathen Army,' or simply, the 'Great Army.' However, I will demonstrate below how the Channel Army moved fluidly between the English and the Frankish kingdoms. Although the record of the Channel Army's campaigns is better documented for England, I suggest that the Channel Army utilized similar tactics against, and possessed similar ambitions for, territories within the Frankish kingdoms. Disparate rulers from the Channel Army sought new territories for themselves and their retainers. By the late 860s, there is no record of these groups returning to their ostensibly native-Norse lands, nor of fresh fleets joining the existing armies. That we are seeing a moveable, adaptable conglomerate of armies strongly supports Neil Price's hydrarchy paradigm, in which individual groups were able to band together or break apart as needed to prosper and pursue their own interests.[550] Moreover, by the end of this fourth generation of activity, the historical sources suggest that the Norse controlled lands in Frisia, East Anglia, Northumbria, and Normandy. It is therefore feasible to imagine that the landless hydrarchies did not need to return to Atlantic Scandinavia, where indeed they were likely unwelcome following the shift in royal powers. Instead, these leaders and their armies could rest at the various Norse colonies organized across the North Sea and the Channel, allies linked by the dispossession of their homelands.

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[547] Unn Pedersen, "Urban craftspeople at Viking-age Kaupang," in *Everyday Products in the Middle Ages: Crafts, Consumption and the Individual in Northern Europe c. AD 800-1600*, ed. Gitte Hansen, Steven P. Ashby, and Irene Baug (Oxbow, 2015), 54.; Lars Pilø, "The Settlement: Extent and Dating," in *Kaupang in Skiringssal*, ed. Dagfinn Skre (Aarhus: Aarhus University Press, 2007), 178.

[548] Mark Blackburn, "The Coin-finds," in *Means of Exchange: Dealing with Silver in the Viking Age*, ed. Dagfinn Skre (Aarhus: Aarhus University Press and the Kaupang Excavation Project, 2008), 39.

[549] Tom Metcalfe, "Oldest Viking settlement possibly unearthed in Iceland," *Live Science*, 23 June 2020, https://www.livescience.com/oldest-viking-settlement-discovered.html.

The second group will be referred to as the *Hiberno-Norse,* which was active in the region of the Irish Sea and north and west Scotland. The establishment of strategic bases and settlements allowed for the beginnings of assimilation between the migrant Norse and the native Irish. Despite these (semi-)permanent camps, the arrival and subsequent reign of Olaf and Ivar (and their short-lived co-king Auisle) in Dublin suggests that the elite from territories in Scandinavia retained a vested interest in the success of the colonies in Ireland and Northern Britain. This ultimately separates the Hiberno-Norse from the Channel Army.

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[550] Neil Price, "Ship-Men and Slaughter-Wolves: Pirate Polities in the Viking Age," in *Persistent Piracy: Maritime Violence and State-Formation in Global Historical Perspective*, ed. Eklöf Amirell and Leos Müller (London: Macmillan, 2014).; Neil Price, "Pirates of the North Sea? The Viking Ship as Political Space," in *Comparative Perspectives on Past Colonisation, Maritime Interaction and Cultural Intergration*, ed. Lene Melheim, Håkon Glørstad, and Zanette Tsigaridas Glørstad (Sheffield: Equinox, 2016).

While the Channel Army had broken ties with its homelands, the Hiberno-Norse remained an arterial vein of potential profit and wealth for powers within Scandinavia. While it is not proposed that the king(s) of Atlantic Scandinavia were aligned politically with the kings of Dublin and the Irish Sea, I suggest that by the end of Generation 4 Dublin had become an independent city-state. The Northern Arc Trade Network maintained powerful ties between the two areas, ultimately allowing Dublin to grow and thrive into a central node of the network, despite existing on the peripheries of Atlantic Europe.

5.VII.1 The Channel Army: A Great Hydrarchy

The Channel Army, which has here been renamed from the Great Heathen Army referred to in the *ASC*, was in actuality an event that transgressed beyond the Early English kingdoms. Alfred Smyth, Clare Downham, and Shane McLeod have all written on the Norse connections between England and Ireland, wherein they suggest that the Norse parties in Ireland likely played a significant role in the Channel Army campaign.[551] Christian Cooijmans has commented on the link between the Insular world and Frankia, observing how the rise of activity in one area often correlated with a decline in activity across the sea.[552] By renaming this phenomenon as the Channel Army, I highlight the geographical connection between the Norse within the early English and the Frankish kingdoms, whilst attempting to diminish the theory that the Norse of the Irish Sea area played a large part in these invasions, which has received considerable focus in previous studies. This section seeks to fill the gap by offering a comparative analysis of Norse movement across the Channel.

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[551] Smyth, *Scandinavian kings in the British Isles, 850-880*.; Downham, *Viking kings of Britain and Ireland: the dynasty of ́Ívarr to A.D. 1014*.; Shane McLeod, *The beginning of Scandinavian settlement in England: the Viking 'Great Army' and early settlers, c. 865-900* (Turnhout: Brepols, 2014).

[552] Cooijmans, *Monarchs and Hydrarchs*, 135-6.

I propose that by the early 860s, with the outcome of the dynastic struggles within the Dano-Norse homelands beginning to solidify, a number of Dano-Norse elites found themselves pushed out of their homelands as a result of being on the losing side of the civil war(s). Gathering their families and their retainers, they launched campaigns within Frankia and England, where they sought to carve out new territories. The campaigns in either Frankia or England were not coordinated invasions with the aim to conquer existing kingdoms. Indeed, there could not be a coordinated invasion with a view towards full-scale domination without the presence of a strong over-king. The civil wars and power fracturing at home instead created a series of demographically diverse, autonomous groups bound to individual leaders, chieftains, or petty kings, who "were not seeking a single 'homeland', but rather individual *homelands*."[553] An example of how the Norse forces operated can be found in 861, when a force on the Seine was unable to return home by winter: "they split up according to their brotherhoods into groups allocated to various ports."[554] These groups were successful because of their malleability; smaller groups were able to link up with one another to take on adversaries, and then they could disband as needed. Thus, branches of the

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[553] Ben Raffield, "Band of brothers: a re-appraisal of the Viking Great Army and its implications for the Scandinavian colonization of England," *Early Medieval Europe* 24, 3 (2016): 330.
[554] Nelson, *The Annals of St-Bertin*, 95-6.

Channel Army were ultimately successful because of the hydrarchic structure of the conglomerate army. [555]

I argue that the objectives were the same in both England and in Western Frankia. The leaders sought to settle and colonize tracts of land. Much as the viking-Norse had accomplished this in Ireland in the generation prior, members of the Channel Army sought to establish their own polities within the existing Early English and Frankish kingdoms. In England, this phenomenon has been discussed *ad nauseam*, though arguments vary as to whether the Channel Army sought to conquer England in totality, or if leaders and/or individuals were looking to carve out their own territories.[556] In agreement with Raffield, I believe the latter is more likely, and it fits into the pattern of settlement perpetuated in Ireland during the previous Generation of activity, c. 837-860. See Figure 75 for a map of settlements and camps in England for this period.

The situation in Western Frankia is less clear for several reasons. First, the Norse in Frankia are less studied, especially within English-speaking scholarship. Second, the narratives of the *ASC* and the Frankish Annals depict the two groups differently. The former was written at the court of Wessex, specifically under the rule of Alfred the Great, as was discussed above in 2.III.3.i. The court watched anxiously as East Anglia, Mercia, and Northumbria tumbled, and when Wessex was attacked in the early 870s, the record is decidedly propagandistic in favor of Alfred's accomplishments. Specifically, by highlighting the fact that the invaded Early English kingdoms were being ruled by Norse-approved client kings, the kings of Wessex were justifying their reasons to take these kingdoms into their own dominion. The latter, specifically *AB*, moved away from the royal perspective, and wrote critically of Charles the Bald and his nephew Charles the Fat.[557] As such, it is clear that writers in Wessex sought to portray the invaders in England as a 'Great Army,' while the scribes of Frankia wrote scathingly of the Carolingian rulers who could not defeat the barbarian masses. By reading the texts contextually, and observing the activity in both places simultaneously, it seems clear that despite the different styles of recording, the means and motivations of the Norse in England and Western Frankia were similar, if not identical. Third, there is a frustrating dearth of archaeological evidence in France to corroborate the presence of the Norse in these areas, which has been discussed in Chapter 4 above. However, the historical sources do record a number of settlements and camps from this period (Figure 76).

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[555] Cooijmans, *Monarchs and Hydrarchs*, 181.
[556] For a concise summary, see: Hadley, *The vikings in England*, 1-27.

Despite the Anglophone focus on the English aspect of the Channel Army, it is likely that Frankia was considered even more viable and/or valuable for the land-hungry Norse. Figure 77 explores the number of encampments between Frankia and England, as recorded by the Frankish Annals and the *ASC* respectively. It should be noted that these encampments were not necessarily permanent in nature, nor can the counts be considered a totality of the encampments that existed, but the graph should be used as a generalized tool to understand the movement in and around the regions, as well as the travelling fleets' ability to set up camps in various localities. The Frankish Annals record a total of 50 encampments between 840-890, while in the *ASC* only 31 are recorded. Furthermore, the *ASC* records numerous Norse movements and settlements across Frankia, which were not included above. It would appear that the Channel Army was more prolific within Frankia, where Charles had already granted lands around the Seine to a Norse group in 850,[558] and where even more groups managed to carve out territories in Normandy and Brittany between the 860s and the 890s.[559]

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[557] For discussion, see Chapter 2.

The patterns of encampment are similar across the Channel as well, and in both locations the Norse set themselves up in unoccupied/rural areas, monastic establishments and towns. For example, in England, the cities of York and London were seized by the Channel Army.[560] In Frankia, the Channel Army targeted and occupied Paris and Angers.[561] The monasteries at Repton (England) and Jumièges (Frankia) were both repurposed for wintering camps.[562] These were the same groups moving across/between the Channel.

The silver evidence from Chapter 3 supports arguments that the Channel Army disrupted both England and Western Frankia. As discussed above, the mints had begun to pull away from the Frankish coasts during Generation 3, but hoarding is shown to be a common occurrence between 840-876 (Figure 45) and 877-924 (Figure 46). Within England, only a single hoard has been recovered for the period 840-876 (Figure 45), but the practice increases across the early English territories during the period 877-924 (Figure 46). Moreover, the debasement of Wessex and

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[558] Reuter, *The Annals of Fulda*, 30.

[559] Swanton, *The Anglo-Saxon Chronicle*, 72, 74.; McKitterick, *The Frankish Kingdoms under the Carolingians, 751-987*, 237.

[560] Swanton, *The Anglo-Saxon Chronicle*, 68-9, 72-3.

[561] Reuter, *The Annals of Fulda*, 97.; Nelson, *The Annals of St-Bertin*, 183.

[562] Swanton, *The Anglo-Saxon Chronicle*, 72-3.; Nelson, *The Annals of St-Bertin*, 50.

Mercia coinage from the 850s to 878 has already been discussed (3.III.2), pointing to further economic disruptions wrought by the Channel Army.

The Channel Army managed to make political inroads in both England and Frankia, however their methods differed depending on the geopolitical landscape. In Western Frankia, where Charles the Bald ruled over a kingdom that was decidedly less powerful than the preceding Carolingian Empire, but still a strong and centralized state in its own right, various Norse leaders made strategic alliances with or swore allegiance to the Frankish king.[563] When Godfrid was granted land on the Seine, he was "received into the alliance of [Charles the Bald's] kingdom."[564] In 858, *dux* Bjorn made a similar deal, and in 862 Weland "commended himself" to the king. In England, the Norse were able to remove the kings of the smaller and weaker Early English kingdoms and install their own client kings. McLeod suggests that there were significant advantages to this policy, notably that the Norse were able to utilize an existing local administrative system, and that they were able to control these kingdoms without large military (or economic) investments.[565] However, where McLeod suggests that client kings were not used in Frankia because their objective differed in the two locations, I argue that the objective was the same.[566] Instead, the different approaches reflect the different governments that they encountered.

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[563] Cooijmans, *Monarchs and Hydrarchs*, 222.

[564] Reuter, *The Annals of Fulda*, 30.

[565] McLeod, *The beginning of Scandinavian settlement in England: the Viking 'Great Army' and early settlers, c. 865-900*, 202.

[566] McLeod, *The beginning of Scandinavian settlement in England: the Viking 'Great Army' and early settlers, c. 865-900*, 203.; Similarly, in Ireland the geopolitical landscape was vastly different than in either England or Frankia.

If the Channel Army had been a singular, hierarchical campaign, it would stand to reason that once the Norse had conquered and colonized an area, that the spread of activity in other areas would cease. However, following Norse supremacy in two Early English kingdoms at the end of the 870s, Channel Army activity peaked in Frankia in the 880s. This would suggest that the Channel Army was made up of hydrarchical groups, and that one leader's success did not necessarily benefit all leaders. For example, in 879, King Alfred of Wessex made a treaty with the Norse leader Guthrum, who took large swathes of East Anglia under his control.[567] Except for a skirmish between Alfred's Kentish fleets and 'pirates' in East Anglia, Guthrum's reign passed without incident.[568] It should be further noted that Guthrum's ultimate goal was to carve out his own polity, made up of family units and not just young, single male soldiers. The stray-find evidence of brooches from Chapter 4 indicates that both men and women immigrated to East Anglia from the Norse homelands. Furthermore, the *ASC* seems to suggest that Norse groups had achieved similar control in Northumbria. Considering the explosion of activity in Frankia that followed, I suggest that where some leaders and their groups were excluded from land grants by the likes of Guthrum and his Northumbrian counterpart, the groups that returned across the Channel to Frankia had to continue their search for new homelands.[569]

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[567] Whitelock and Douglas, *English Historical Documents 1: c. 500-1042*, 1, 417-8.

[568] Swanton, *The Anglo-Saxon Chronicle*, 80.; It is unclear if these pirate ships were under the order of Guthrum or whether they were operating independently.

[569] The echo of this phenomenon can be found in Iceland during this period. I suggest that the motivations for settling in Iceland were not dissimilar to the activities happening in Frankia and in England. Namely, with the Scandinavian polities under internal stress from the power vacuum that followed Horic's death, the Norse who sailed to Iceland were driven by political pressures to find new lands.

To conclude, the nature of the Norse activity was similar in character across England and Frankia, though tactics altered depending on the geo-political landscape of the native populations. While the *ASC* paints the Channel Army as conquering invaders in order to perpetuate the myth of Alfred as a unifying leader, the Norse themselves appear to be more interested in gathering portable wealth and carving out individual lands than creating a new, unified Norse kingdom in Britain. The extent of their disruption is evident in both the historical sources and the silver evidence. These were groups driven from their Scandinavian homelands due to political unrest in the Dano-Norse kingdom and the centralizing Norwegian-Norse state. They were determined to create homes in either England or Frankia, and I suggest that they had largely accomplished this by the end of the ninth century.

5.VI.1.i A note on the connection between the (English) Channel Army and the kings of Dublin

I reject the hypothesis that the Norse in Ireland were central to the Channel Army invasion of England. In line with the above theory that these bands were ‘pushed’ from their homelands (which were inclusive of the Scandinavian Peninsula, Jutland, Frisia, and Frankia) due to internal struggles, and that they were above all seeking lands to settle and colonize, it does not follow that the Hiberno-Norse would play a large role. The Hiberno-Norse were already in possession of lands in Ireland and the Irish Sea, and had been so since the previous generation. I do not suggest that there was zero crossover between the two groups. Members of the Hiberno-Norse likely participated due to the advantages to be gained from raiding, but the rewards of an outright invasion would likely not have outweighed the risks.

As McLeod has pointed out, “the essential element of the argument for a link between the great army and Ireland is the identification of the Ímhar of Dublin found in the Irish annals with the leader of the great army recorded as Inwære in the *ASC.*”[570] If, as is entirely possible, these Ivars are two separate individuals who happen to share the same name, this theory falls apart. The majority of scholars accept the identification of Ivar across the Irish and Early English sources,[571] but the evidence is circumstantial at best. First, Ivar is never named as a/the leader of the Channel Army, but a brother of Ivar is said to have landed 23 ships in Devon.[572] This brother and his 23-ship fleet may have arrived from Hiberno-Norse polities of the Irish Sea, but the *ASC* does not define in what capacity he was operating. Again, it is possible that the Hiberno-Norse saw an opportunity of profit within the Channel Army that was separate from the Dano-Norse diaspora’s intention to colonize. Moreover, Ivar himself is only named as a leader of the Channel Army in the late-tenth century in the *Chronicle of Æthelweard* and by Abbo of Fleury.[573] However, by this period, the heirs of Ivar had made several protracted bids for the kingship of York, and the assigning of Ivar to the Channel Army may be retroactive propaganda. Second, the Ivars of the Irish and the Early English sources have different death dates. Æthelweard records Ivar’s death in 870, though McLeod suggests that this early date could have been used as a device to explain Ivar's return to Ireland.[574] The *AU* records his death in 873. Moreover, when Ivar died in 873, the *AU* records that he was "king of the Norsemen of all Ireland and Britain."[575] This has been taken to signify that the Irish scribes considered him to be a High King of sorts over all the Norse in England as well. I suggest that the Irish sources are referring only to Norse holdings on the island of Britain, which have no contemporary sources of their own. For example, Ivar and Olaf of Dublin campaigned in northern Britain in 871, where they took Dumbarton after a four month siege.[576] The kings returned to Dublin with two hundred ships filled with Picts, Britons, and Angles, presumably to be sold as slaves.[577] It should be noted that the contemporary texts differentiated between the native British and the early English. To be a king of the Norsemen in Britain likely suggests that the Irish scribes were not referring to lands under the contested rule of the English, but instead refer to areas of northern Britain (i.e. Scotland). Olaf himself would not be mentioned again, though the later *Pictish Chronicle* records his death c. 874 in Scotland. There are also several mentions of Norse activity in Wales. Therefore, it is much more likely that the Norsemen in Britain refers to territory held by the Norse in the north and west of Britain than to the Early English Kingdoms in the southeast of the island. Third and finally, when York is conquered by the Norse in 867, the *AU* attributes the victory to the 'dark foreigners.' The 'dark foreigners' terminology is used sporadically throughout the second half of the ninth century, and it is unclear if it retains its original connotations that I have argued above, namely that the ‘dark foreigners’ are a second wave of invaders from the Dano-Norse kingdom.[578] While the ‘dark foreigners’ of York may not have been sent by the Dano-Norse king, it is possible that the *AU* recognized them as ruled over by a powerful leader who originated from the severely weakened Dano-Norse state. That is not to say the ‘black foreigners’ are ethnically Danish, but that they came from lands associated with Dano-Norse rule, i.e. Vestfold, Jutland, Frisia, and even parts of Frankia, as opposed to primarily hailing from the western Norwegian regions of Vestlandet and Trøndelag. There is no evidence, beyond the use of the terminology itself, to suggest that the ‘dark foreigners’ in York were connected to the ‘dark foreigners’ of Dublin. Ultimately, our understanding of who or what the fair and dark foreigners were is too weak to connect Dublin to York in the second half of the ninth century.

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[570] McLeod, *The beginning of Scandinavian settlement in England: the Viking 'Great Army' and early settlers, c. 865-900*, 113.

[571] Smyth, *Scandinavian kings in the British Isles, 850-880*. Smyth has noted that the careers of the two Ivars in the Irish Annals and the English sources are too closely aligned to be a coincidence (p 236); Downham, *Viking kings of Britain and Ireland: the dynasty of Ívarr to A.D. 1014*.; Dumville, "Old Dubliners and New Dubliners in Ireland and Britain: a Viking-Age Story."; Katherine Holman, *The Northern conquest : Vikings in Britain and Ireland* (Oxford: Signal Books, 2007).; David Griffiths, *Vikings of the Irish Sea : conflict and assimilation AD 790-1050* (Stroud, England: History Press, 2010).; Mary Valante has stood out amongst scholars for disputing this claim. However, her argument that the the use of ‘Danes’ to refer to the Hiberno-Norse Ivar, whom she believes originates from Vestfold, is problematic. Valante, *The Vikings in Ireland*, 67, 72.

[572] Swanton, *The Anglo-Saxon Chronicle*, 75-6.

[573] McLeod, *The Beginning of Scandinavian Settlement in England*, vol. 29, 114.

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[574] McLeod, *The beginning of Scandinavian settlement in England: the Viking 'Great Army' and early settlers, c. 865-900*, 118-9.
[575] AU 873.3
[576] AU 871.2
[577] Smyth, *Scandinavian kings in the British Isles, 850-880*, 236.

Most importantly, I suggest that both the silver and the burial evidence point to a distinct separation between the Channel Army and the Hiberno-Norse. In Chapter 3 (3.V.7), the theory for the Silver Curtain was presented, suggesting that silver dirhams did not survive intact in states that encountered a centrally controlled economy, specifically the Frankish kingdoms and the Danish state (Figures 48 & 49). However, that silver dirhams do appear in Ireland and along the Cuerdale Cooridor presents the possibility that a Norse group without a regulated economy had carried the silver from eastern trade nodes to their holdings in the Atlantic. The burial evidence further supports this, with significantly more burial sites, as well as more female burials, from Ireland up to Shetland following a near 45 degree trajectory. The burials that are found in England (inclusive of the mass burial sites at Repton and Heath Wood), however, contain more weapons, suggesting a more militarized focus for the group. Figure 78 shows the overlap of burials with silver hoards containing dirhams, while Figure 79 shows a clear divide between the two groups in the historical source activity, as well as the application of burial sites and hoards.

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[578] AU 877.5

5.VII.2 Hiberno-Norse Kings and Dublin as a centralized city-state

While there were other viking-Norse encampments in Ireland by this period, this section will focus primarily on Dublin, which was already the center of Hiberno-Norse activity by Generation 4. The other Hiberno-Norse encampments of the period may have been on their way to becoming actualized polities, but many failed to survive into the tenth century. I argue that Dublin had developed into a centralized city-state by the 860s, and that their kings held considerable influence over the geopolitical landscape in Ireland, inclusive of both the other Hiberno-Norse as well as the native Irish.

According to the Copenhagen Polis Centre, which conducted research on the development of city-states between 1990 and 2000, a city-state is defined as:

> “A highly institutionalized and highly centralized micro-state consisting of one town (often walled) with its immediate hinterland and settled with a stratified population, of whom some are citizens, some foreigners and, sometimes, slaves. Its territory is mostly so small that the urban centre can be reached in a day's walk or less, and the politically privileged part of its population is so small that is does in fact constitute a face-to-face

> society. The population is ethnically affiliated with the population of neighbouring city-states, but political identity is focused on the city-state itself and based on differentiation from other city-states. A significantly large fraction of the population is settled in the town, while the others are settled in the hinterland, either dispersed in farmsteads or nucleated in villages or both. The urban economy implies specialisation of function and division of labour to such an extent that the population has to satisfy a significant part of their daily needs by purchase in the city's market. The city-state is a self-governing but not necessarily an independent political unit."[579]

Poul Holm has convincingly argued that Dublin in the tenth and 11th centuries fits within the above framework, though he considers the ninth-century *longphort* to be little more than a warrior camp, citing the lack of both textual and archaeological evidence to indicate an urban character.[580] Howard B. Clarke similarly argues that ninth-century Dublin lacked the diagnostic features of a permanent town: "a pattern of streets and laneways, building plots divided by fences, adjacent houses, workshops and ancillary buildings, constant quayside activity, earth and timber defenses, and possibly a place of assembly."[581] While the Fishamble Street/Wood

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[579] Mogens Herman Hansen, "Introduction. The Concepts of City-State an City-State Culture," in *A Comparative study of thirty city-state cultures: an investigation conducted by the Copenhagen Polis Centre*, ed. Mogens Herman Hansen, Historisk-filosofiske skrifter (Det Kongelige Danske Videnskabernes Selskab) (Copenhagen: Det Kongelige Danske Videnskabernes Selskab, 2000), 19.

[580] Poul Holm, "Viking Dublin and the *polis* Concept: Parameters and Significance of the Hiberno-Norse Settlement," in *A Comparative Study of Thirty City-State Cultures. An investigation conducted by the Copenhagen Polis Centre*, ed. Mogens Herman Hansen (Copenhagen: Det Kongelige Danske Videnskabernes Selskab, 2000).

[581] Howard B. Clarke, "Proto-Towns and Towns in Ireland and Britain in the Ninth and Tenth Centuries," in *Ireland and Scandinavia in the Early Viking Age*, ed. Howard B. Clarke, Maíre Ní Mhaonaigh, and Raghnall Ó Floinn (Dublin: Four Courts Press, 1998), 379.

Quay excavations led by Patrick F. Wallace in the 1970s uncovered extensive evidence for tenth-century urbanization, the dig failed to uncover any layers of ninth-century occupation. However, excavations in 2020 near Dublin Castle have hinted at the character of the original settlement, by establishing that the *Dubh Linn*, the pool located beside the original encampment on the Poddle River near the confluence of the Liffey, stretched for more than 400 meters, allowing for a large fleet of ships to dock there.[582] Excavations at and in the immediate vicinity of Dublin Castle, believed to be the site of the original encampment (with the later Normans building over the seat of Dublin's Hiberno-Norse power,) have been limited, though Viking-Age layers were excavated beneath the Powder Tower between 1985 and 1987.[583] Furthermore, Breandán Ó Riordán, who led the excavation at Winetavern Street between 1969 and 1973 uncovered building layers and evidence of metal working that could be of either ninth- or tenth-century date.[584] It is impossible to surmise the extent of the ninth-century encampment, but more excavations are necessary to understand the character and scope of the original settlement.

Despite its limited urbanization, I argue that Dublin in the second half of the ninth century was an incredibly complex ecosystem that had already begun to develop into an independent polity following the arrival of Olaf and his co-king Ivar in the

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[582] Shane O'Brien, "Dublin Viking dig uncovers Ireland's first prison cells," *Irish Central*, 16 September 2021, https://www.irishcentral.com/roots/history/dublin-viking-dig-first-prison-cells.; The excavation report has not been published, and Alan Hayden, the site director, has not responded to my queries regarding the site.

[583] Ann Lynch and Conleth Manning, "Dublin Castle E296/E297/E298/E323/E324," *Significant Unpublished Irish Archaeological Excavations 1930-1997*, Section 15: Medieval Dublin, https://www.heritagecouncil.ie/unpublished_excavations/section15.html#DublinCastle2.

[584] Breandán Ó Ríordáin, "Excavations at High Street and Winetavern Street, Dublin," *Medieval archaeology* 15, no. 1 (1971): 76, https://doi.org/10.1080/00766097.1971.11735338.

850s. First, I will examine what is currently known about the nature of the encampment, and then I will lay out my arguments for why Dublin met both the Copenhagen Polis Centre's criteria as well as the criteria laid out above (Section 5.II.1, Figure 66) for a centralized state by the end of Generation 4 (890).

Firstly, Dublin had a clear system of rulership that controlled a designated hierarchy (1, see Figure 66.) The town was ruled over by individuals that the Irish sources refer to – and therefore respect as – kings. An Irish king even went so far as to marry his daughter to Olaf in a bid to create an alliance between his kingdom and the city-state of Dublin.[585] Just as the Godfridssons of the Danish State constituted an example of multiple kingships, so too did Dublin have more than one king.

Secondly, the kings of Dublin controlled territory in and around Dublin (2), and they may have been interested in expanding (2A). In 867, the *AU* records the destruction of "Amlaíb's fort" at Clondalkin, which lies ten kilometers downriver from Dublin.[586] This would indicate that Dublin was in control of hinterlands within a ten-mile radius of the center. Elizabeth O'Brien suggests that the individuals recovered from the Kilmainham and Islandbridge cemeteries lived in a defendable encampment, and that they lived in "a reasonably settled community."[587] Moreover, the presence of women within a settled community would indicate that the center at Dublin was more than a warrior camp.

The kings of Dublin sought to expand their territorial control. Under Olaf's (and his co-kings') rule, offensive campaigns took place further and further away from the center of Dublin, which suggests that the raids were not merely used to plunder portable wealth. These were military operations used to carve out territories in Ireland in order to pursue economic advancement. As discussed in the section above, the Hiberno-Norse kings had a clear interest in territory and wealth from Scotland. Olaf is reported to have died fighting the Picts in 871,[588] and the later Icelandic Sagas record that following his death, his wife Aud/Unn the Deep-Minded fled to Scotland with their son, where he ruled a territory in Northern Scotland.[589]

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[585] AU 862.2
[586] AU 867.8
[587] O'Brien, "Viking Burials at Kilmainham and Islandbridge," 221.

Thirdly, the kings of Dublin controlled trade and resources (3). It has already been established that the Hiberno-Norse capitalized on the slave trade, and I suggest that by this period the kings of Dublin controlled the Irish Sea arm of the Northern Arc Trade Network. For example, the kings of Dublin raided in 866 on a slaving mission, and in 870 they laid siege to Dumbarton for four months before returning to Dublin with 200 ships full of slaves.[590] Moreover, there is clear evidence to suggest that Dublin had a direct hinterland, which suggests that the kings also oversaw the regulation and distribution of the surrounding agriculture. Cemeteries at Kilmainham and Islandbridge contained burials of both men and women deposited with farming equipment and weapons and with cloth/garment making equipment respectively, further indicating the role of agriculture alongside the military role of the settlers.[591] Furthermore, hoarding begins in Ireland during this period, with the majority of hoards deposited within an arc of between 30 and 70 miles from Dublin (Chapter 3.V.6). These patterns suggest that silver is entering Ireland primarily through the port of Dublin, suggesting that it is a major centre of trade (Figure 46.) This feeds into the next point: while not part of the criteria for centralization, Dublin was a functioning *emporium* by this period. Admittedly, hard evidence for the urbanization of Dublin is scarce for the late-ninth century. However, new excavations may shed more light in the near future, inclusive of the 2020 excavation near Dublin Castle as the report has not yet been published. While Dublin of the mid-ninth century may not have been an *emporium* of grand scale, even the most temporary of encampments "played host to an intricate, adaptive system of logistical (inter)relationships."[592] Later layers reveal evidence of amber working, wood carving, and cobbling, suggesting that specialist craftspeople lived and worked in the town.[593] It is suggested that it is not unlikely that such craftspeople existed during this earlier period as well. At the very least, there were families living and dying within the Norse fort on a permanent basis, and at the most we can imagine that late-ninth-century Dublin was a thriving permanent encampment well on its way to becoming an urban center.

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[588] Benjamin T Hudson, *Kings of Celtic Scotland*, Contributions to the Study of World History, (Wesport, Conn.: Greenwood Press, 1994), 51-2.; Benjamin Hudson has identified evidence for Olaf's death in the *Scottish/Pictish Chronicles*, which survive in a mid-14th century manuscript. It is possible that the original text was composed from the mid-ninth to the late tenth century: Benjamin Hudson, "The Scottish Chronicle," *Scottish historical review* 77, no. 204 (1998): 130, 33, https://doi.org/10.3366/shr.1998.77.2.129.; Valante, *The Vikings in Ireland*, 73.

[589] Magnus Magnusson and Pálsson Hermann, *Laxdæla saga* (London: Folio Society, 1975).; Smyth, *Scandinavian kings in the British Isles, 850-880*.

[590] AU 866.1; AU 860.6

[591] O'Brien, "Viking Burials at Kilmainham and Islandbridge," 221.

The growth of Dublin from a backwater warrior camp into an independent city-state by the 860s/70s can be linked to the ongoing struggles in both the Dano-Norse kingdom and the territories on the west coast of Norway due to its growing importance in the Northern Arc Trade Network. I again refer to the evidence of the

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[592] Christian Cooijmans, "Down by the River: Exploring the Logistics of Viking Encampment across Atlantic Europe," *Viking* 84, no. 1 (2021): 187, https://doi.org/10.5617/viking.9051.
[593] Patrick F. Wallace, "Ireland's Viking Towns," in *The Vikings in Ireland*, ed. Anne-Christine Larsen (Roskilde: The Viking Ship Museum, 2001), 41, 45.

Silver Curtain (Figures 48 & 49), with which the presence of dirham in Ireland and the Cuerdale Corridor explicitly links this stretch with the Baltic, Central/Eastern Europe, and the Middle East. However, by the end of Generation 4, just as the Channel Army no longer had a home back in Scandinavia, so too had the elite of Dublin lost their allegiance to their *patria.* This is reflected in the Irish Annals, which no longer mention the arrival of new and expansive fleets. Instead, the focus is placed firmly on the Norse already operating in Ireland. Their leaders are so familiar to the Irish scribes that they are regularly referenced by name. Without the help of reinforcements, or the possibility of returning to a homeland so changed that it was likely unrecognizable, the Dublin network node became its own independent city-state.

5.VII.3 Conclusion

The end of Generation 4 sees a fracturing of ties between the Norse abroad - both the Channel Army and the Hiberno-Norse - and their (primarily) Scandinavian homelands. For the Channel Army, they had experienced a mass expulsion as a result of political reshuffling at the end of the Danish civil war(s) in the 850s. This led leaders to form the Channel Army hydrarchy in the search for new homelands, though one leader’s success did not result in the success of other hydrarchy leaders. For the Hiberno-Norse, their link to the Scandinavian homelands through the Northern Arc Trade Network allowed the primary Irish Sea encampment of Dublin to become a central node and develop into an independent city-state. However, by the 880s, the Irish Annals no longer record the arrival of new fleets from abroad. For whatever reason, Dublin and the Hiberno-Norse now stood alone.

5.VIII Generation 5: A Transition, 891-920

By the beginning of Generation 5, the archaeological and historical evidence supports the theory that the Norse peoples had established colonies and laid claim to territories across Atlantic Europe. In Ireland and likely throughout the Irish Sea region, the sites settled by the Hiberno-Norse in the mid-ninth century had become established power and economic centers. The fight between the native Irish and the Hiberno-Norse had shifted; when the Irish Annals state that the Norse were driven out of Dublin in 902, archaeological evidence suggests that the town continued and that it was likely only the leaders who fled. Similarly, Northumbria, East Anglia, and Normandy were firmly in the hands of Norse leaders who had partaken in the Channel Army campaigns. This final period thus oversees how native leaders attempt to reconcile the presence of the Norse colonies in Atlantic Europe, especially in the face of continued onslaughts by Norse hydrarchies who remained landless. I will also explore how the Norse both integrated within their new homelands and how they maintained cultural differences.

5.VIII.1 A Norse diaspora

The 890s were largely a continuation of the campaigns of that began in the 860s, and which had escalated in Frankia in the 880s after at least three Channel Army colonies had been established in Northumbria, East Anglia, and Normandy. It is unclear whether the landless corps of the Channel Army sought their own territories or if they were content with tributes of silver and other portable valuables.[594]

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[594] McKitterick states that between 845 and 926 the sum of seven payments for which details are known, the amount of silver paid amounted to almost 40,000 pounds. McKitterick, *The Frankish Kingdoms under the Carolingians, 751-987*, 233.

However, it appears that the remaining Channel Army hydrarchies had adopted a nomadic lifestyle.

Following the deposition of Charles the Fat in 887, the Norse took advantage of the political dissentions and “laid waste places which they had previously hardly touched”[595] (see Figure 80). The Channel Army continued to harry Frankia into 892, at which point the Channel Army hydrarchy disappear from the Frankish records and reappear in England once more. The Channel Army had been less successful in settling territories across Frankia, though these group had managed to collect large amounts of portable wealth; for example, they received a large sum from Charles the Fat in exchange for abandoning their siege of Paris in 889.[596] Furthermore, the *ASC* suggests that the Franks provided the Channel Army with the ships it took across to England in 892.[597] Furthermore, the situation across the Channel had changed: Guthrum, the East Anglian Norse king, had died in 889 or 890. It is possible that while he lived his rule had prevented other groups of landless Norse from making further incursion into England, but it is plausible that his death destabilized this balance, opening the door for new groups to try their hand at seizing lands.

Ostensibly, there were four forces of Norse warriors present in England by the autumn of 892: the Norse settlers in Northumbria and East Anglia, and two new flotillas that were stationed on the north and south Kentish coast. Alfred attempted to bribe one leader, Hasting/Hæsten, through conversion and promises of wealth, just as he had with Guthrum before him. However, without any land grants, Hasting accepted baptism but proved less than amenable towards a peaceful solution. As such, England experienced a period of war between 892 and 896, which was ultimately unsuccessful for the new Norse groups. East Anglia and Northumbria remained in Norse hands, but Alfred’s reorganization of the army, establishment of a cavalry, and fortification of 33 towns (burhs) prevented any further land seizures and colonization by newer groups.[598]

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[595] Reuter, *The Annals of Fulda*, 104.
[596] Steve Bivans, *Viking War and the Fall of the Carolingians: A Critical English Translation of the Annals of St-Vaast* (Shireness Publishing, 2017), 92-3.
[597] Swanton, *The Anglo-Saxon Chronicle*, 84.

The losers of the war against Alfred’s England returned to Frankia, thus ending the cross-channel fluency of the Channel Army. The returning forces turned their efforts on Normandy, Brittany, Aquitaine, and into Burgundy. Some colonies were more successful than others. There is almost no evidence that the Norse were able to maintain any kind of hold over lands in Aquitaine and Burgundy; the Norse colony in Brittany lasted roughly twenty years, from 915-936; Normandy would, of course, prove to be one of the most successful Norse colonies in Atlantic Europe.[599]

5.VIII.2 Dublin: there and back again

In 902, the Irish Annals record the complete destruction of Dublin. However, archaeological evidence suggests that the site continued during the period c. 902-919, leading to the suggestion that it was the Norse leaders who suffered an eviction from the city-state. The town continued to operate, with the common peoples (likely a group of mixed Hiberno and Norse origins) continuing their daily existences. Dating of the Cuerdale Hoard lends credence to the hypothesis that (some of) the Dublin-Norse leaders fled into Northumbria, though there is no written evidence to suggest where they ultimately escaped to. It is possible, considering the social and economic ties that silver and burial evidence supports, that these exiled Norse did indeed flee to Northumbria, and likely even sought shelter in York (Figure 78). It has further been suggested that the Dublin elite fled to Brittany, and it was these exiles that set up the colony in Brittany, discussed above.[600]

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[598] Pratt, *The political thought of King Alfred the Great*, 67, 94-6.
[599] Price, "Viking Brittany: revisiting the colony that failed."; Price, "The Viking conquest of Brittany."

The Norse attempted their return to Ireland in 914, and in 917 King Ivar's grandson Sitric reentered Dublin. The reasons for their return would have been varied and complex. This group had distinct cultural ties to the island by the beginning of the tenth century, having descended from Norse fathers and Irish mothers. Indeed, by the beginning of the tenth century, despite maintaining their Norse identities, it is possible that the Hiberno-Norse leaders felt closer ties to their Irish lands than their Scandinavian ancestry. Where else would these Hiberno-Norse leaders go except to return home?

5.VIII.3 Conclusion

The sources themselves speak less of the Norse during this period (Figure 80.) Following the expulsion of the Hiberno-Norse leaders from Dublin, there is a period of quiet in Ireland followed by the arrival of new fleets and increasing Irish anxiety. The Channel Army seems to have slowed in their ambitions towards England, especially in the face of centralizing English power. In Frankia, the peripheral, peninsular Frankish territories in Normandy and Brittany are taken by Channel

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[600] *Ibid.*

Army hydrarchy groups with mixed results. Normandy will become a powerhouse of the Norse diaspora, while Brittany's colonization will be short-lived. No matter the outcome, it is proposed that Norse groups are seeking land, as their Scandinavian homelands no longer welcome them. Success or failure, the Norse were there to stay.

5.VIX The early Viking Age concluded

A chronological deep map of the early Viking Age, as utilized specifically by the online Web Experience resource, has revealed new patterns and interpretations of Norse activity.[601] This exercise has served as a tool to support or dismiss previous theories that were formed without the use of GIS. By shifting away from national narratives and taking a trans-regional view of the histories, it is possible to understand the Norse as they were – not as tourists or invaders of singular regions, but as actualized members of a politically complex and technologically advanced Atlantic European world.

Ultimately, this chapter reexamined the early Viking Age as a macro-history across the whole of Atlantic Europe. By combining contemporary textual records from Ireland, early England, and the Frankish kingdoms, and comparing these against the archaeological evidence, a clearer picture emerges of who the Norse were and why they were motivated to move their focus of activity beyond Scandinavia. As such, I hope to have offered a new and insightful interpretation of what happened during the early Viking Age.

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[601] https://experience.arcgis.com/experience/73fd6269dd1c4f48b52a89b5fead9700/page/Home/

To conclude, I drive home my theory that there were two separate group at play between c. 790-840. The Dano-Norse controlled a centralized state, secondary to the larger, predatory state of Charlemagne’s Carolingian Empire. The viking-Norse, elite leaders pushed out of the tertiary states of western Norway, discovered a key to profit and wealth in the Irish Sea, creating a series of nodes linking this area to the Northern Arc Trade Network. By the 840s, the Dano-Norse sought to control these routes. However, these attempts were frustrated by a Danish civil war, which significantly weakened the state and opened up a power vacuum. Without a central power from within, the elites of Southern Scandinavia banded together to form the Channel Heathen Army, which raided and settled across eastern England and western Frankia. At the same time, the Hiberno-Norse established themselves amongst the native Irish, while maintaining links with royal powers in Scandinavia through the operation of the Scandinavian Trade Network. By the end of the ninth century, the Norse had created colonies and settled across Atlantic Europe, and are in the process had lost their ties to the Scandinavian homelands. By the end of the early Viking Age, the Norse peoples of Atlantic Europe were very much settled neighbors of the native peoples, and in many ways the various colonies had become their new homelands.

Activity	**Count**	**Average Elevation (meters)**
Diplomacy	45	89.91m
Conflict	322	68.9m
Settlement	86	35.33m
Inter-Norse Conflict	5	15.2m
Total	**458**	**63.67m**

Table 9: Elevation for Norse Activity

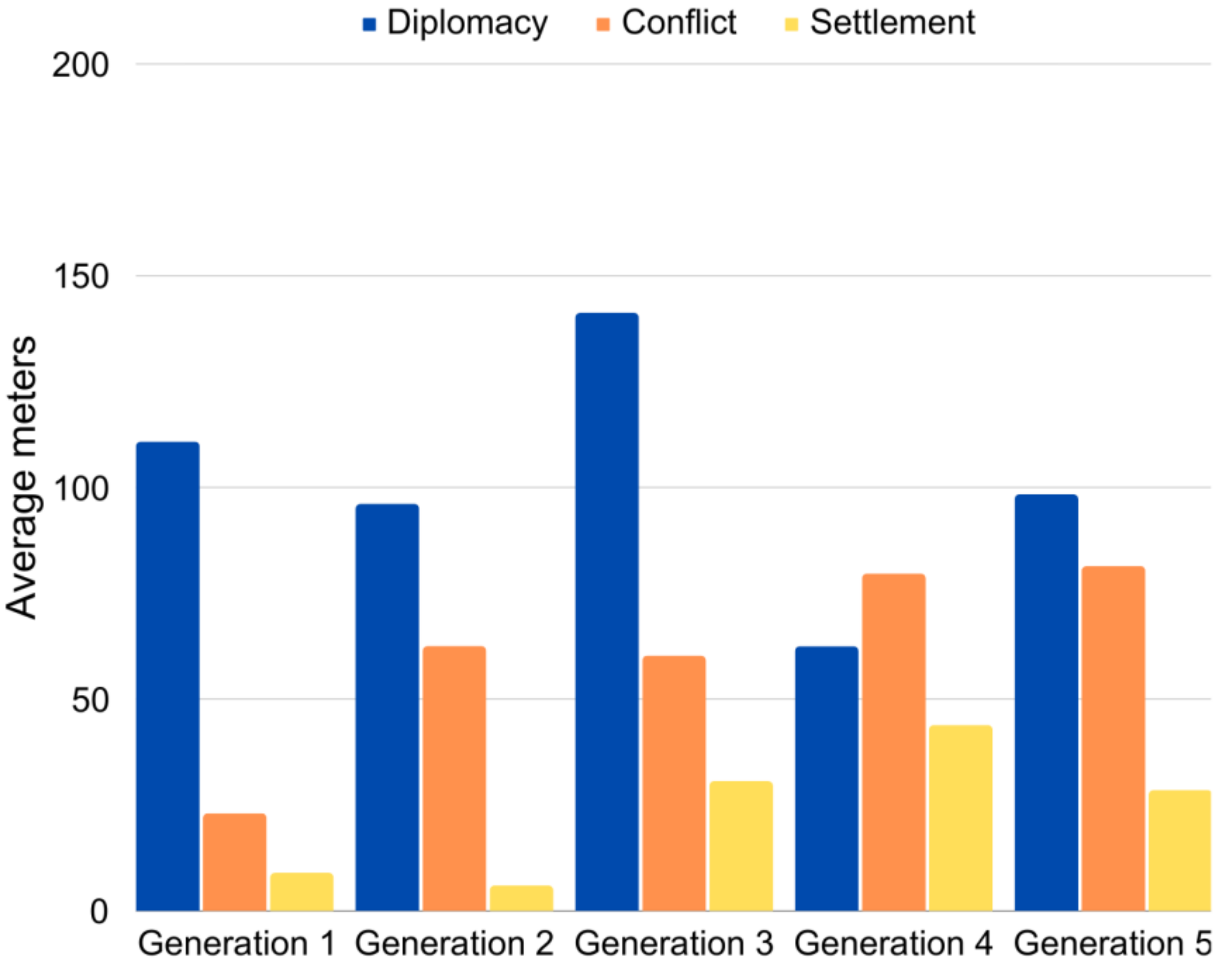

Figure 65: Average Elevation by Generation

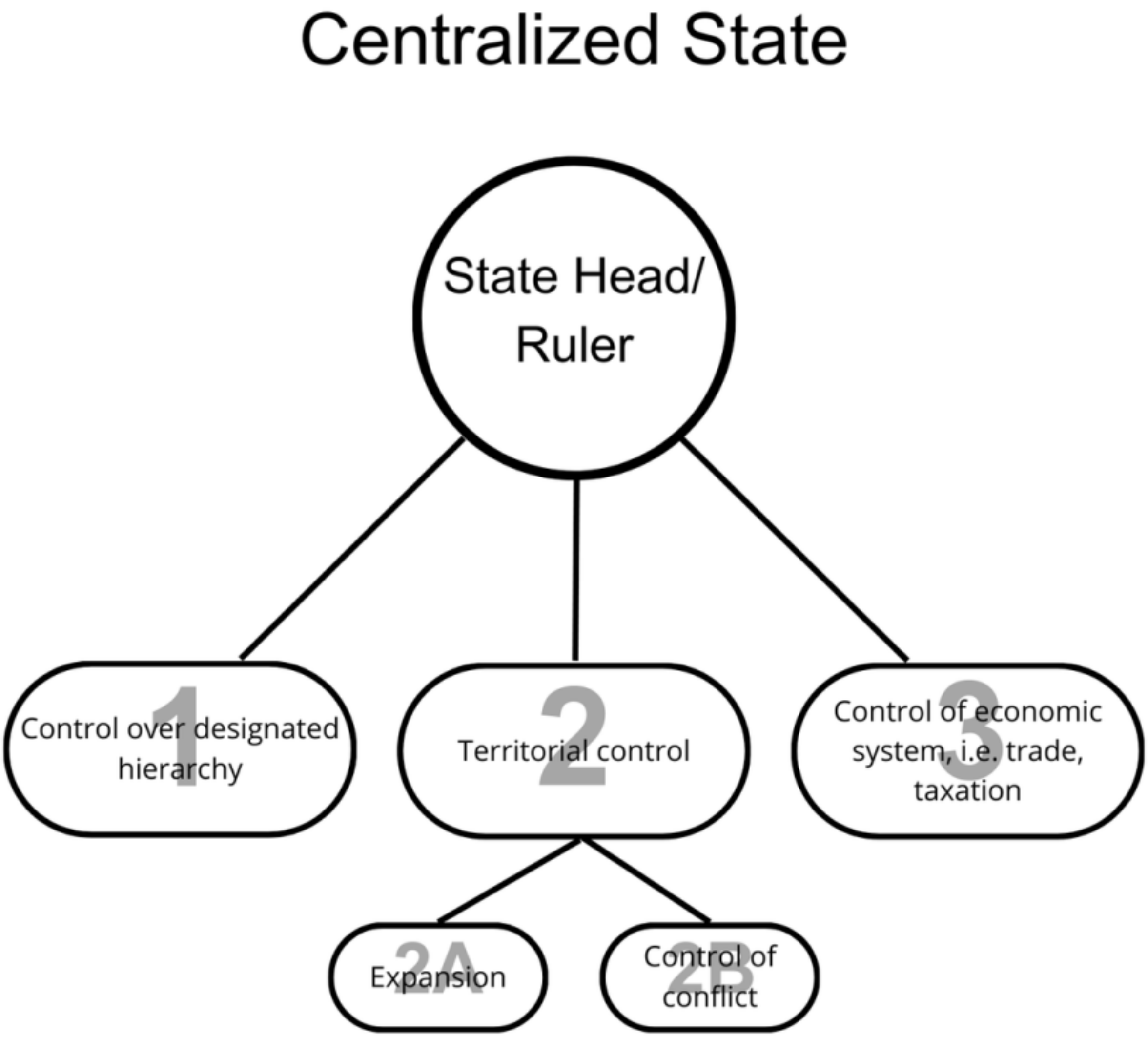
Centralized State
State Head/ Ruler
1
Control over designated hierarchy
2
Territorial control
3
Control of economic system, i.e. trade, taxation
2A
Expansion
2B
Control of conflict

Figure 66: Centralized State Model

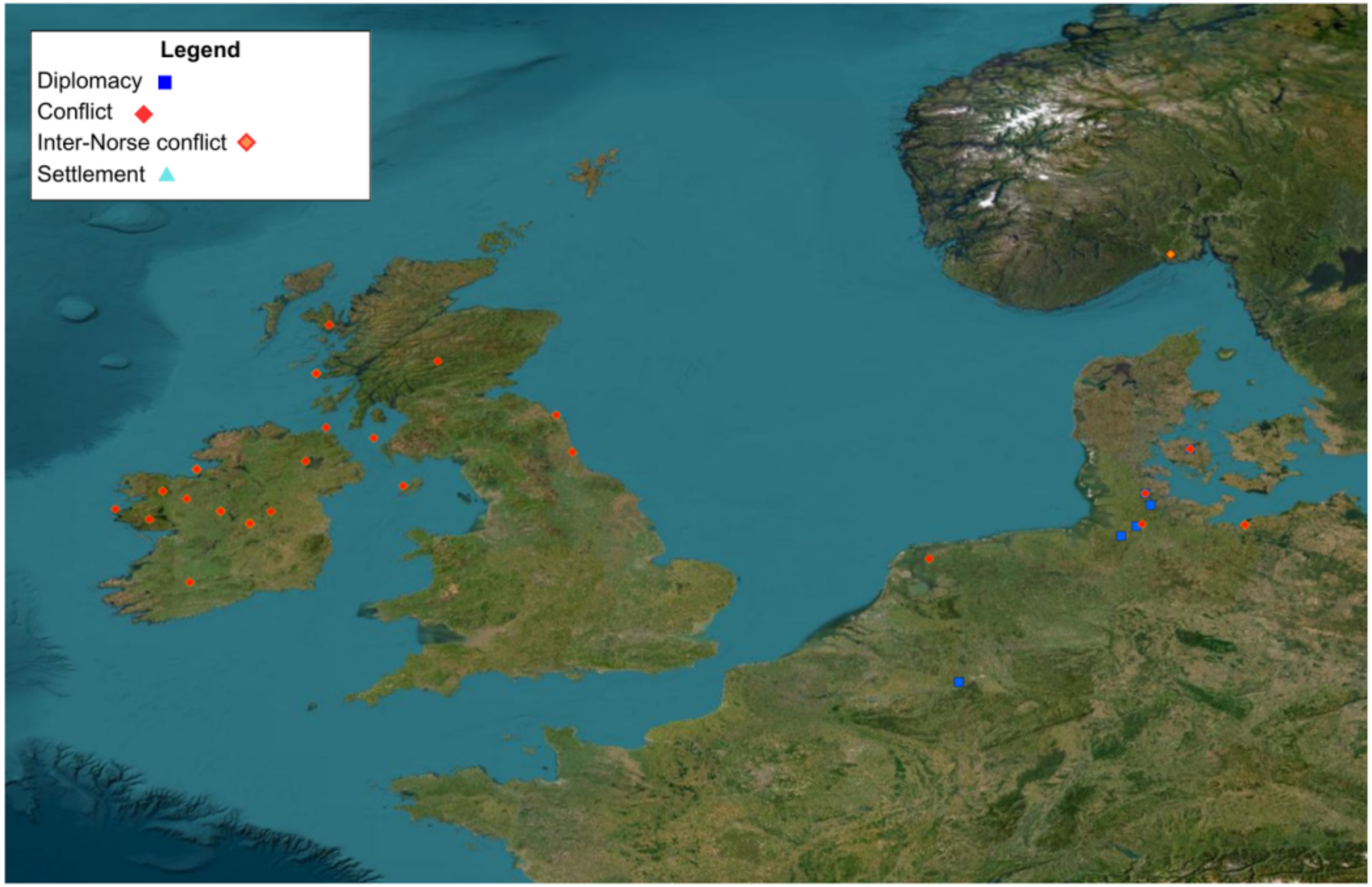
Legend
Diplomacy ■
Conflict ◆
Inter-Norse conflict ◈
Settlement ▲

Figure 67: Generation 1 (793-818), historical source evidence

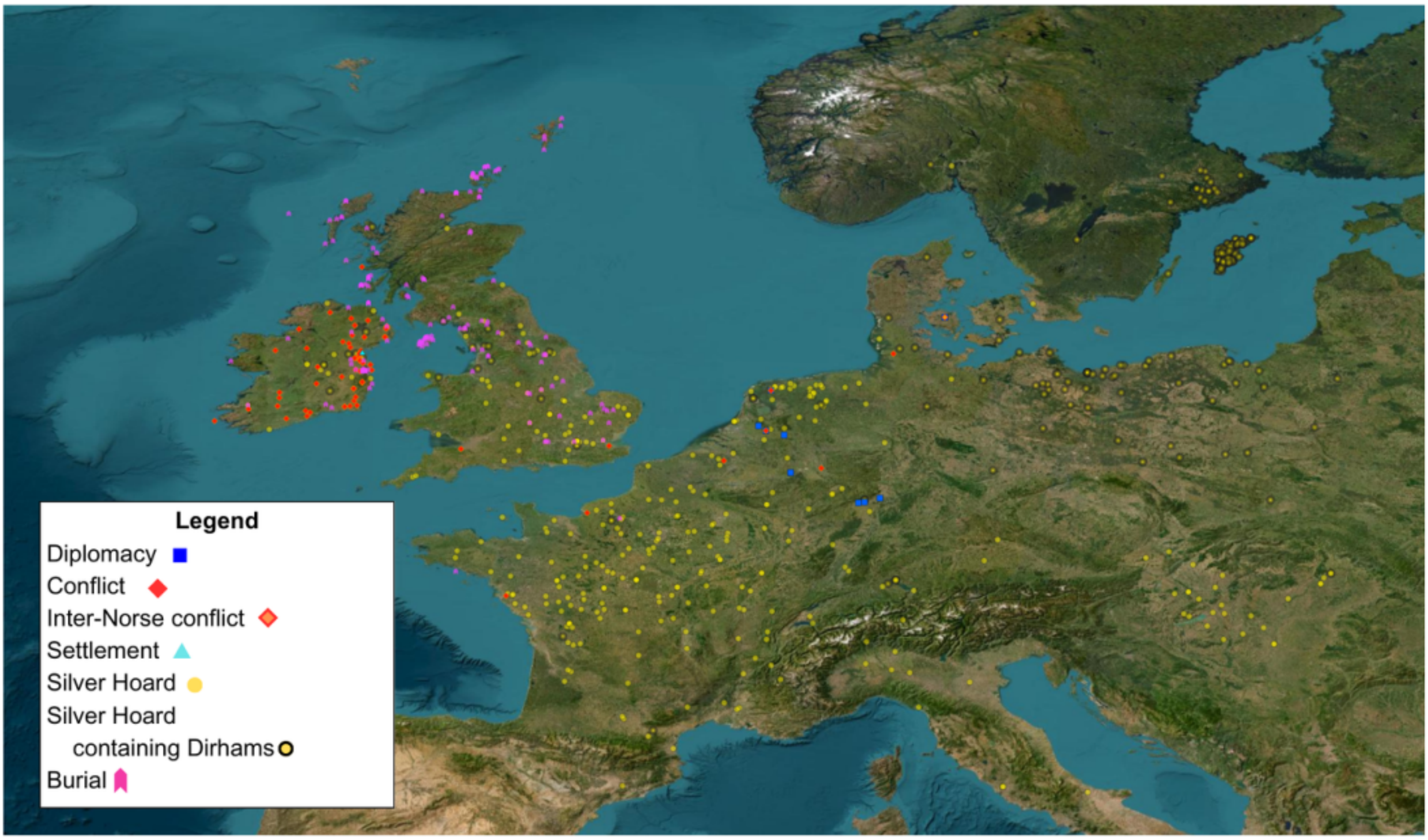
Legend
Diplomacy
Conflict
Inter-Norse conflict
Settlement
Silver Hoard
Silver Hoard containing Dirhams
Burial

Figure 68: Generation 2 (819-836), historical, silver hoard, and burial evidence

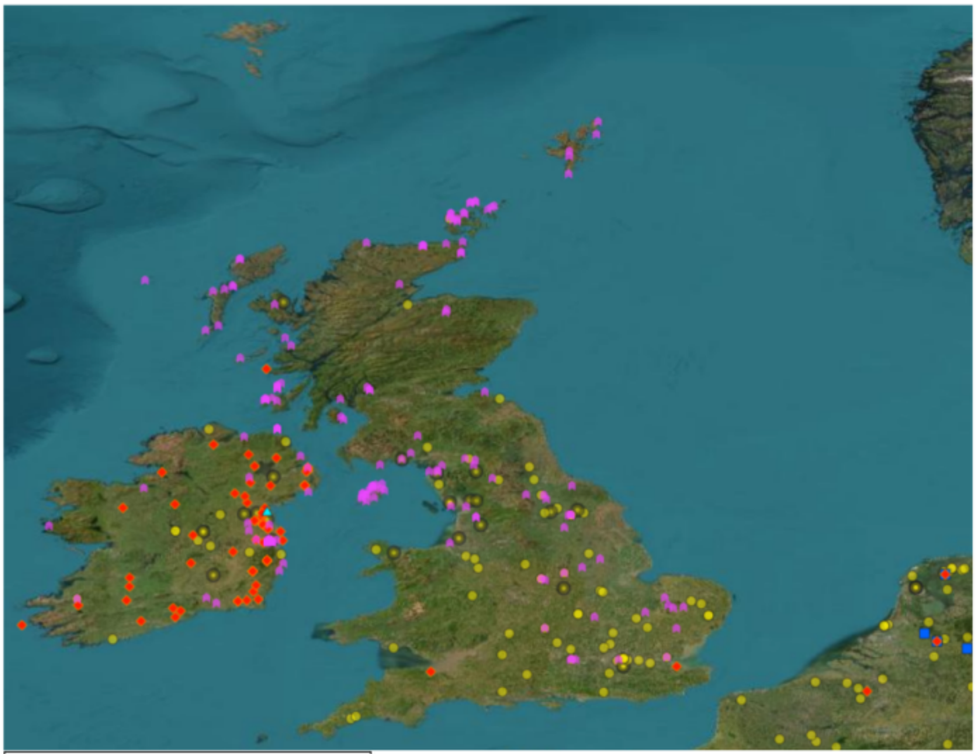
Legend
Diplomacy ■
Conflict ◆
Inter-Norse conflict ◆
Settlement ▲
Silver Hoard ●
Silver Hoard containing Dirhams ●
Burial

Figure 69: Generation 2 (819-836), historical, silver hoard, and burial evidence in Ireland and Britain

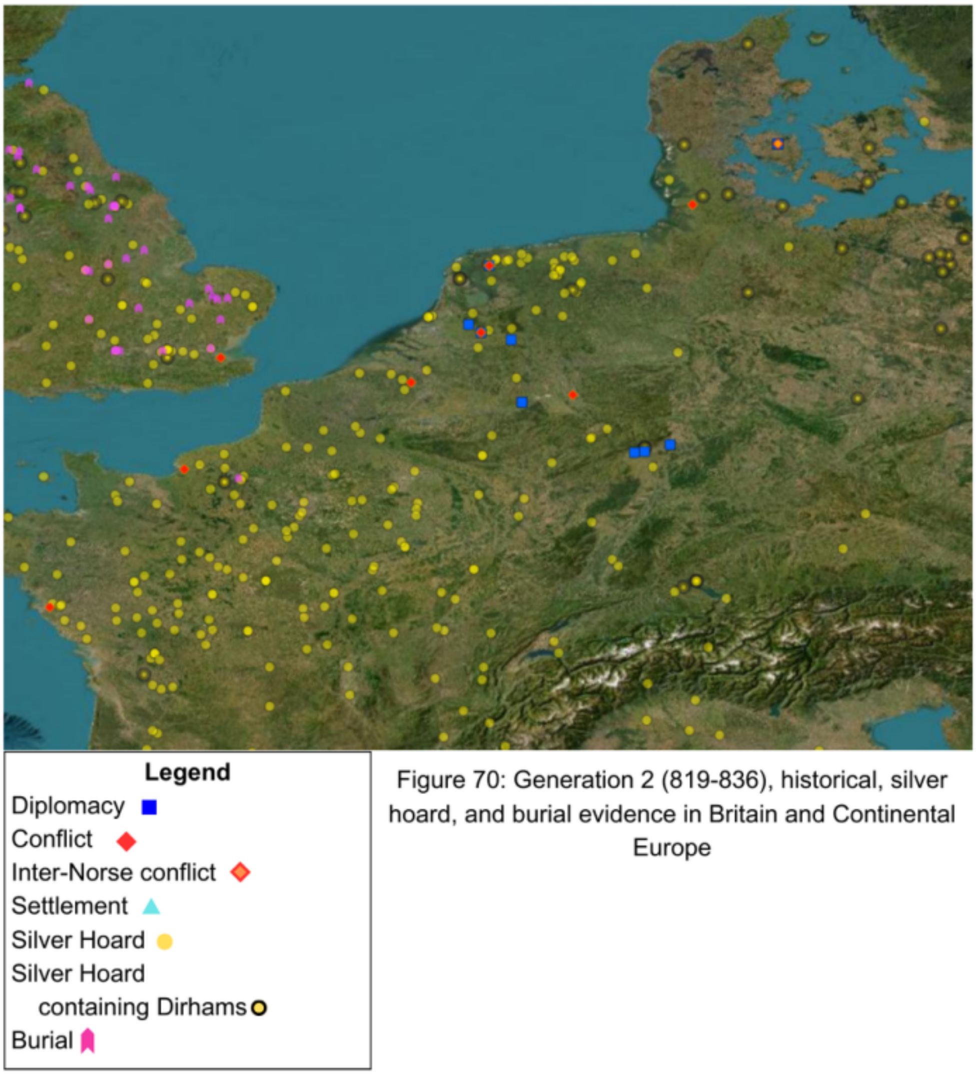
Legend
Diplomacy ■
Conflict ◆
Inter-Norse conflict ◆
Settlement ▲
Silver Hoard ●
Silver Hoard containing Dirhams ○
Burial

Figure 70: Generation 2 (819-836), historical, silver hoard, and burial evidence in Britain and Continental Europe

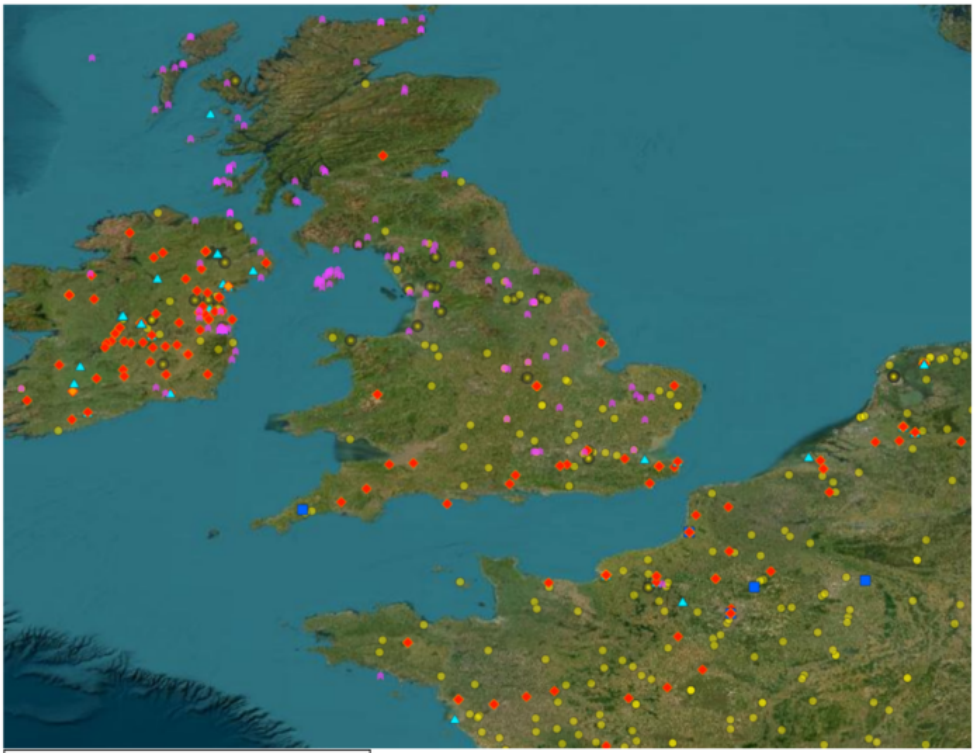
Legend
Diplomacy ■
Conflict ◆
Inter-Norse conflict ◈
Settlement ▲
Silver Hoard ●
Silver Hoard containing Dirhams ◉
Burial

Figure 71: Generation 3 (837-860), historical, silver hoard, and burial evidence in Atlantic Europe; high number of settlements established

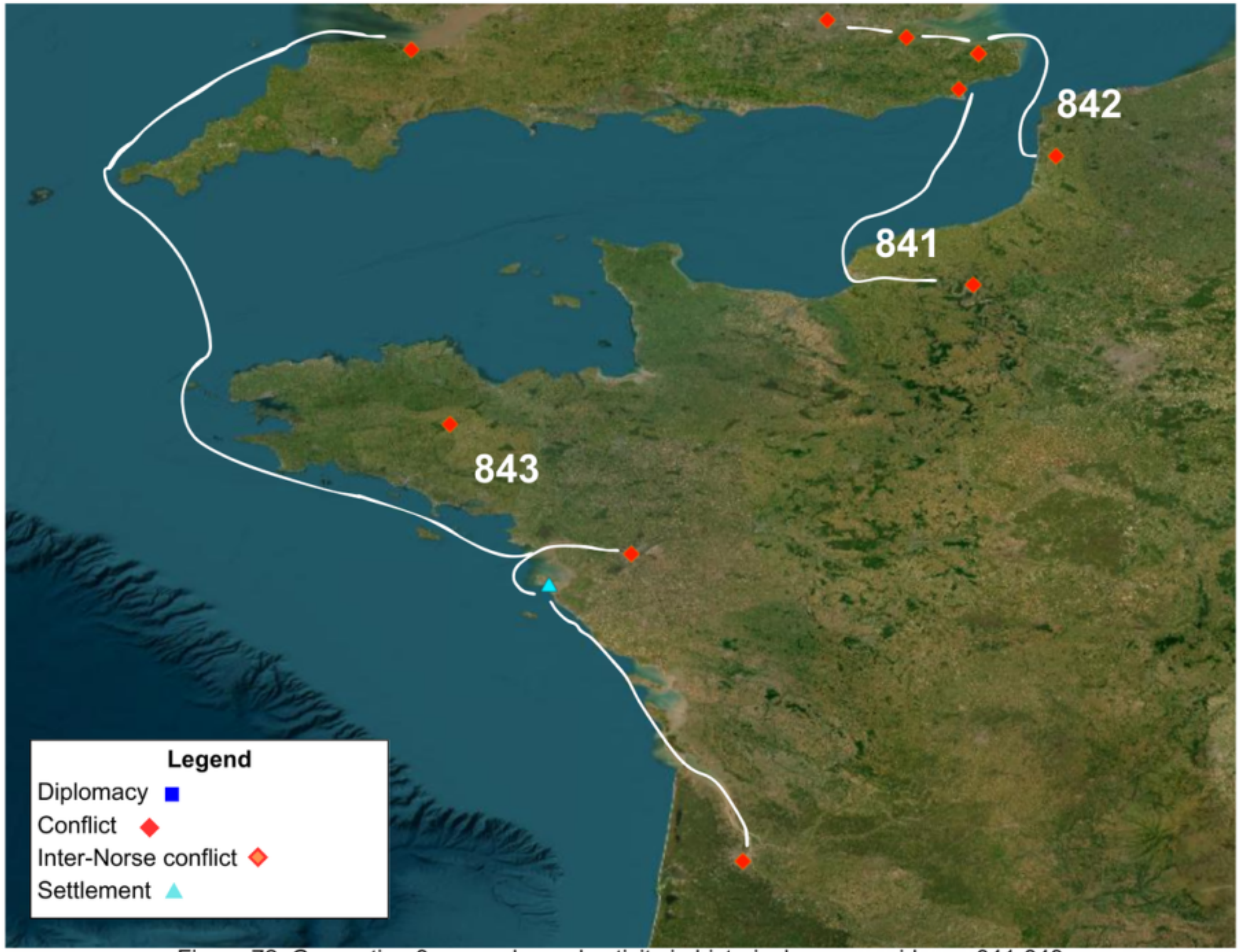
842
841
843
Legend
Diplomacy ■
Conflict ◆
Inter-Norse conflict ◆
Settlement ▲

Figure 72: Generation 3 cross-channel activity in historical source evidence 841-843

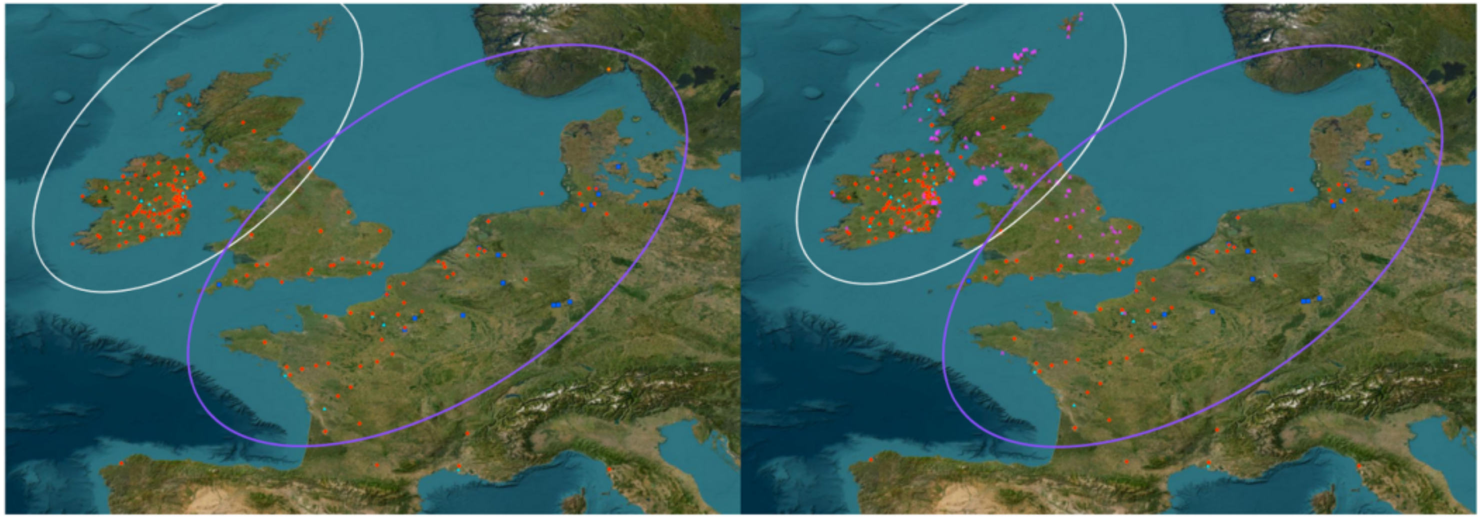
Legend
Diplomacy ■
Conflict ◆
Inter-Norse conflict ◈
Settlement ▲
Silver Hoard ●
Silver Hoard containing Dirhams ⊙
Burial 🔖

Figure 73: Generations 1-3 (793-860) activity, with viking-Norse activity circled in white and Dano-Norse activity circled in purple; a) historical source layers only, b) historical and burial evidence layers

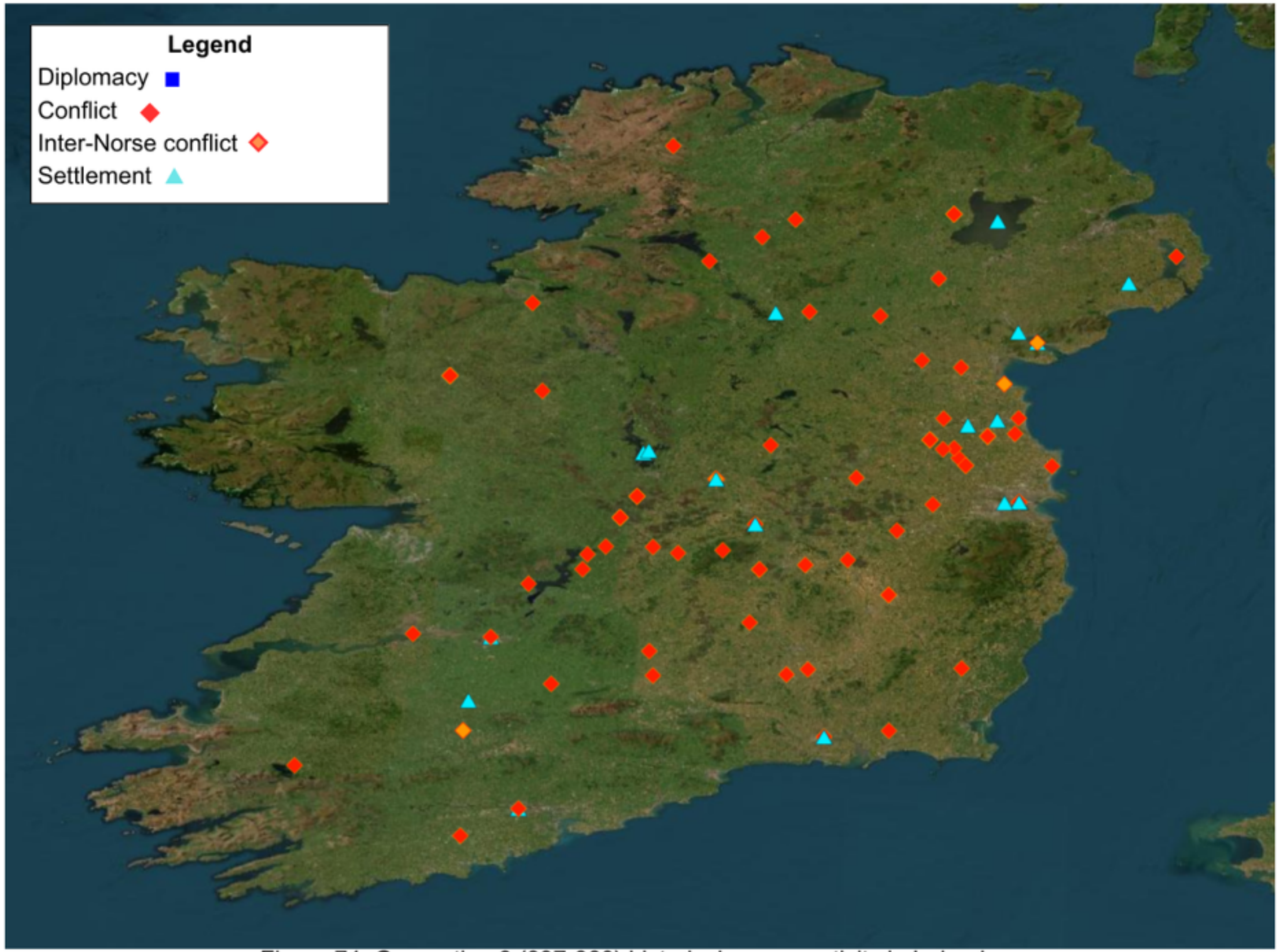
Legend
Diplomacy ■
Conflict ◆
Inter-Norse conflict ◆
Settlement ▲

Figure 74: Generation 3 (837-860) historical source activity in Ireland

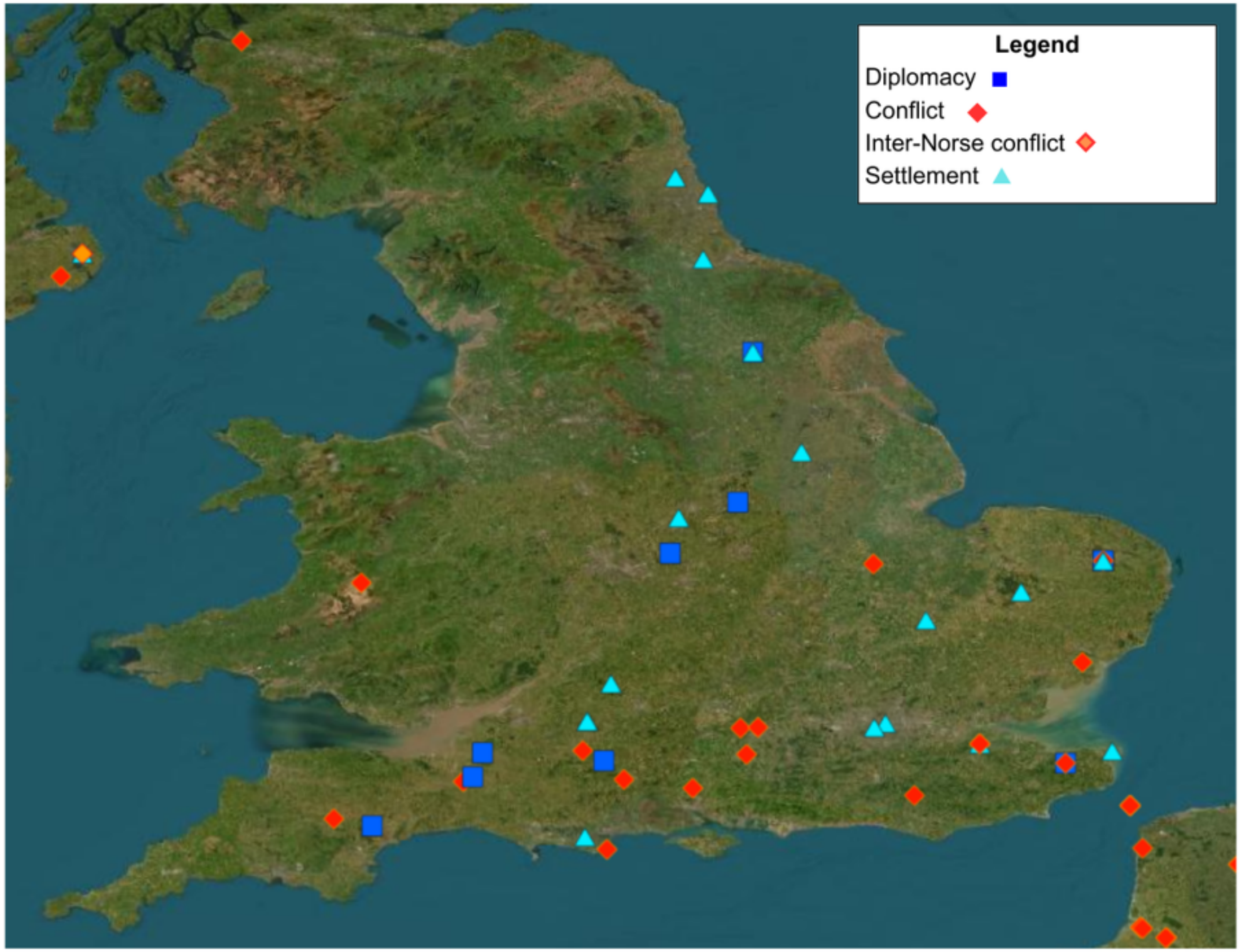
Legend
Diplomacy ■
Conflict ◆
Inter-Norse conflict ◆
Settlement ▲

Figure 75: Generation 4 (861-890) historical source activity in England, focus on settlement

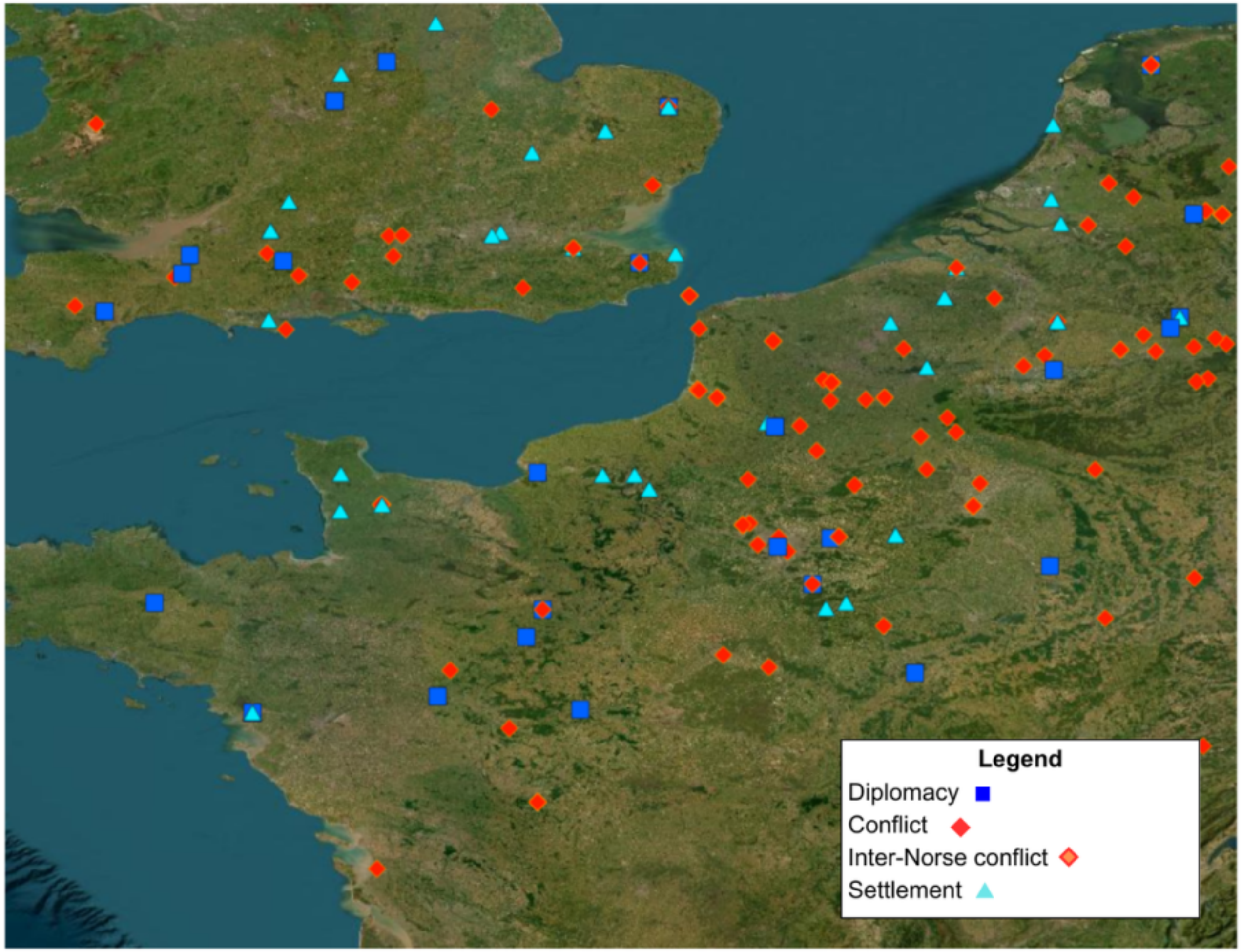
Legend
Diplomacy ■
Conflict ◆
Inter-Norse conflict ◆
Settlement ▲

Figure 76: Generation 4 (861-890) historical source activity in coastal Frankia and southern England, focus on settlement

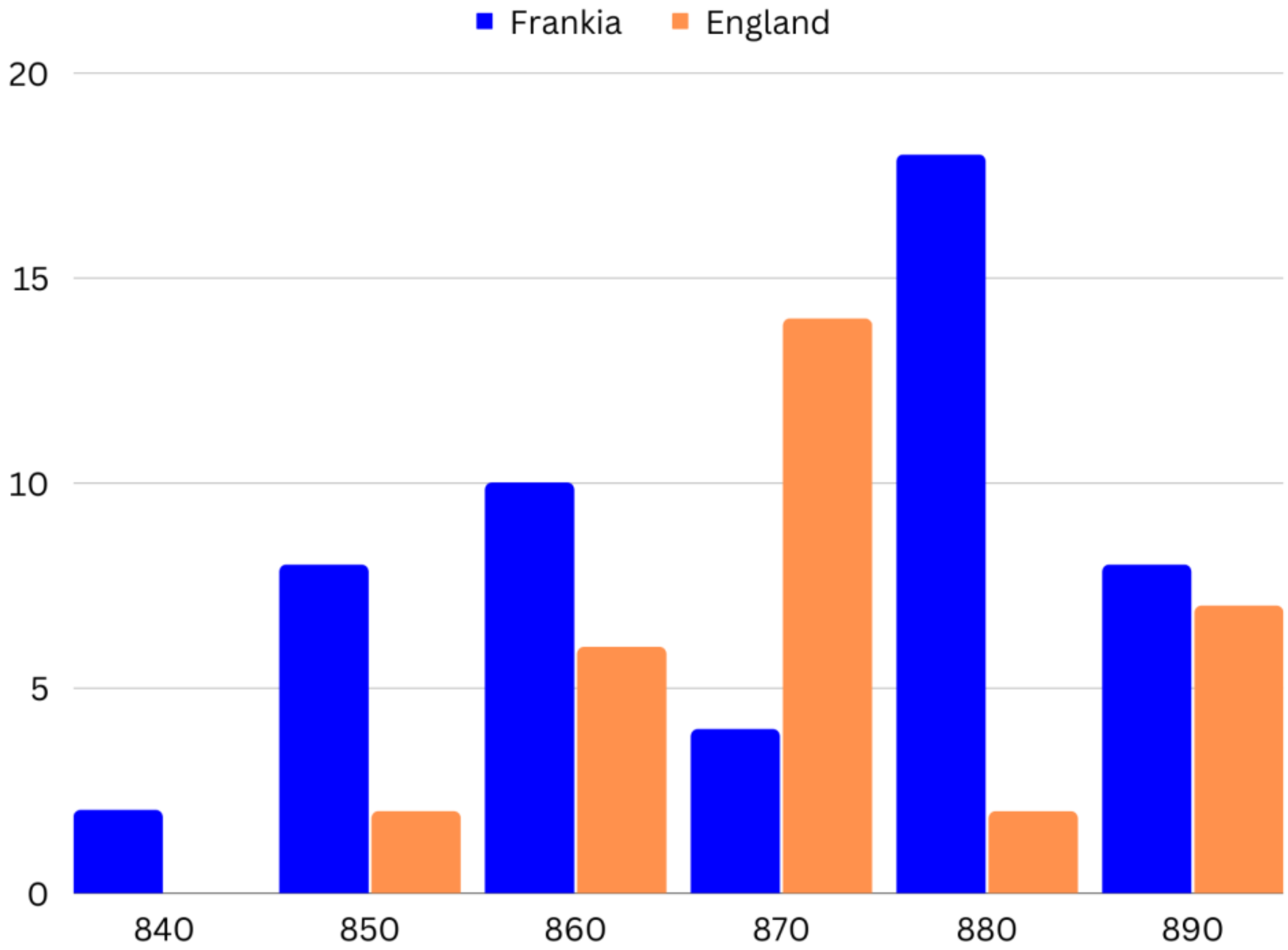

Figure 77: Norse encampments by decade

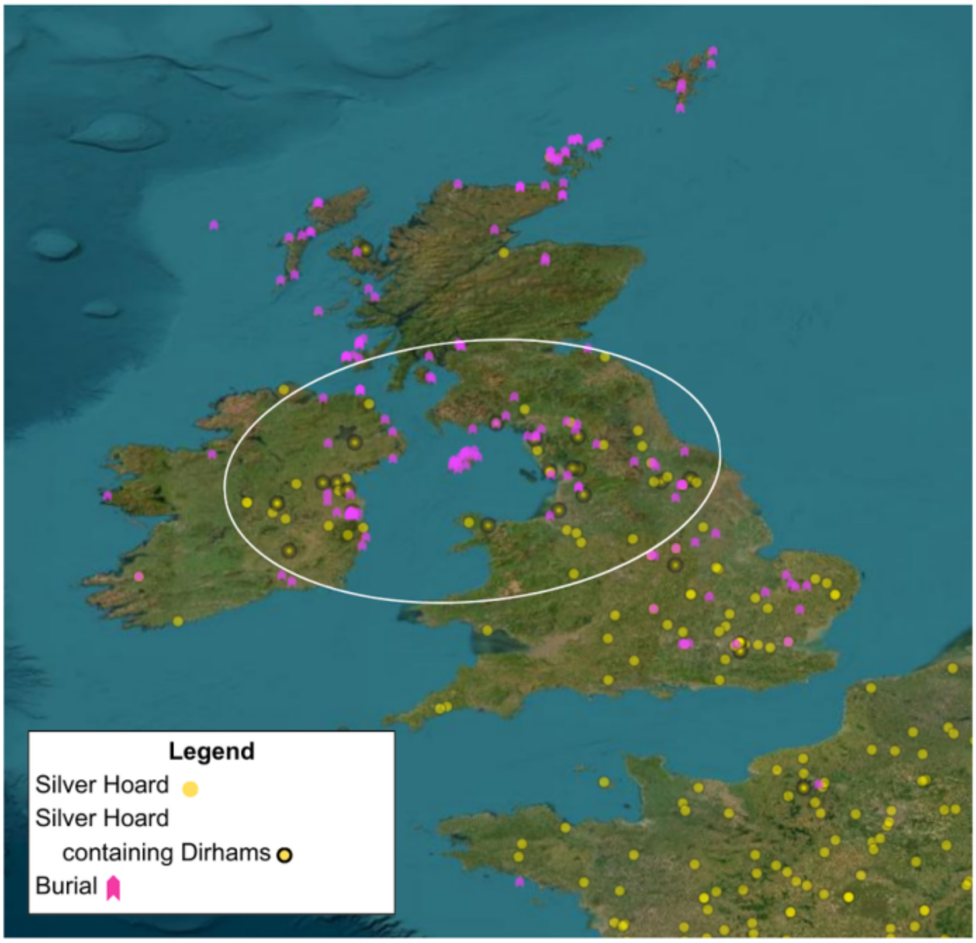
Legend
Silver Hoard ●
Silver Hoard
containing Dirhams ○
Burial

Figure 78: Distribution of burial sites and hoards across Ireland, Britain, Brittany, and Normandy. Overlap between high burial concentrations and hoards containing dirhams highlighted.

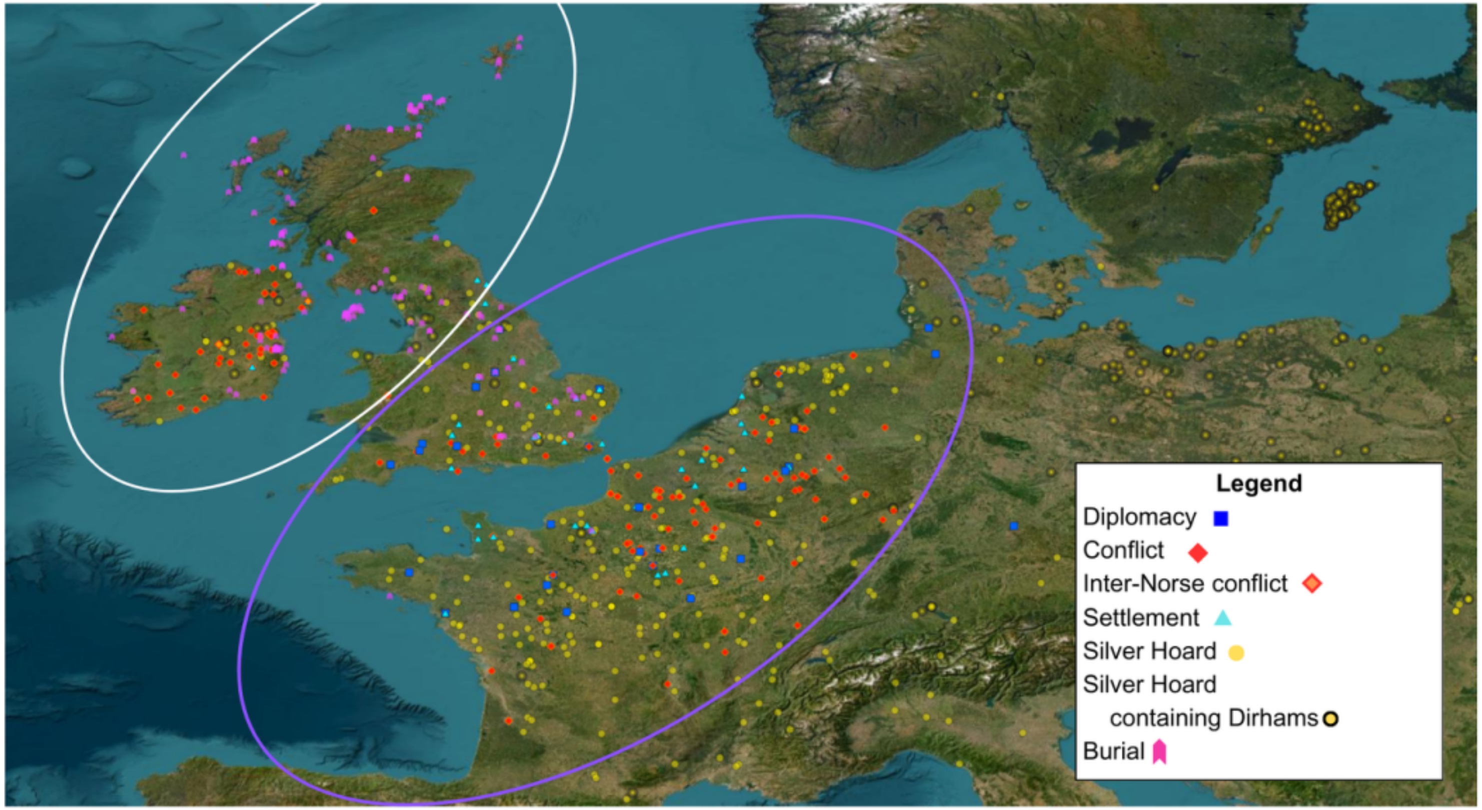
Legend
Diplomacy ■
Conflict ◆
Inter-Norse conflict ◇
Settlement ▲
Silver Hoard ●
Silver Hoard containing Dirhams ○
Burial

Figure 79: Generation 4 (861-890) historical source evidence with burial and hoard layers. Separation between Channel Army (purple) and Hiberno-Norse (white) highlighted.

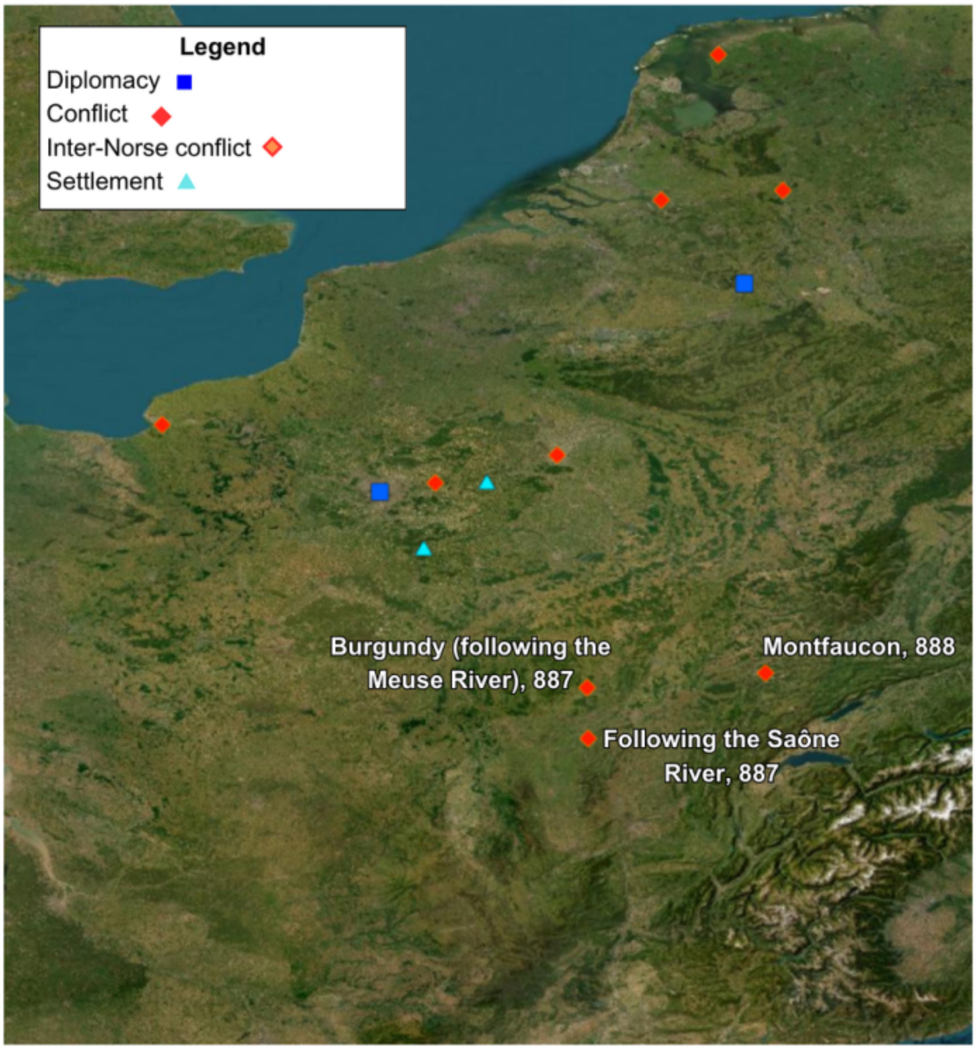
Legend
Diplomacy ■
Conflict ◆
Inter-Norse conflict ◇
Settlement ▲
Burgundy (following the Meuse River), 887
Montfaucon, 888
Following the Saône River, 887

Figure 80: Generation 5 (891-920) historical source evidence of raiding deep into eastern France: "[The Norse] laid waste to places which they had previously hardly touched." - *AV*

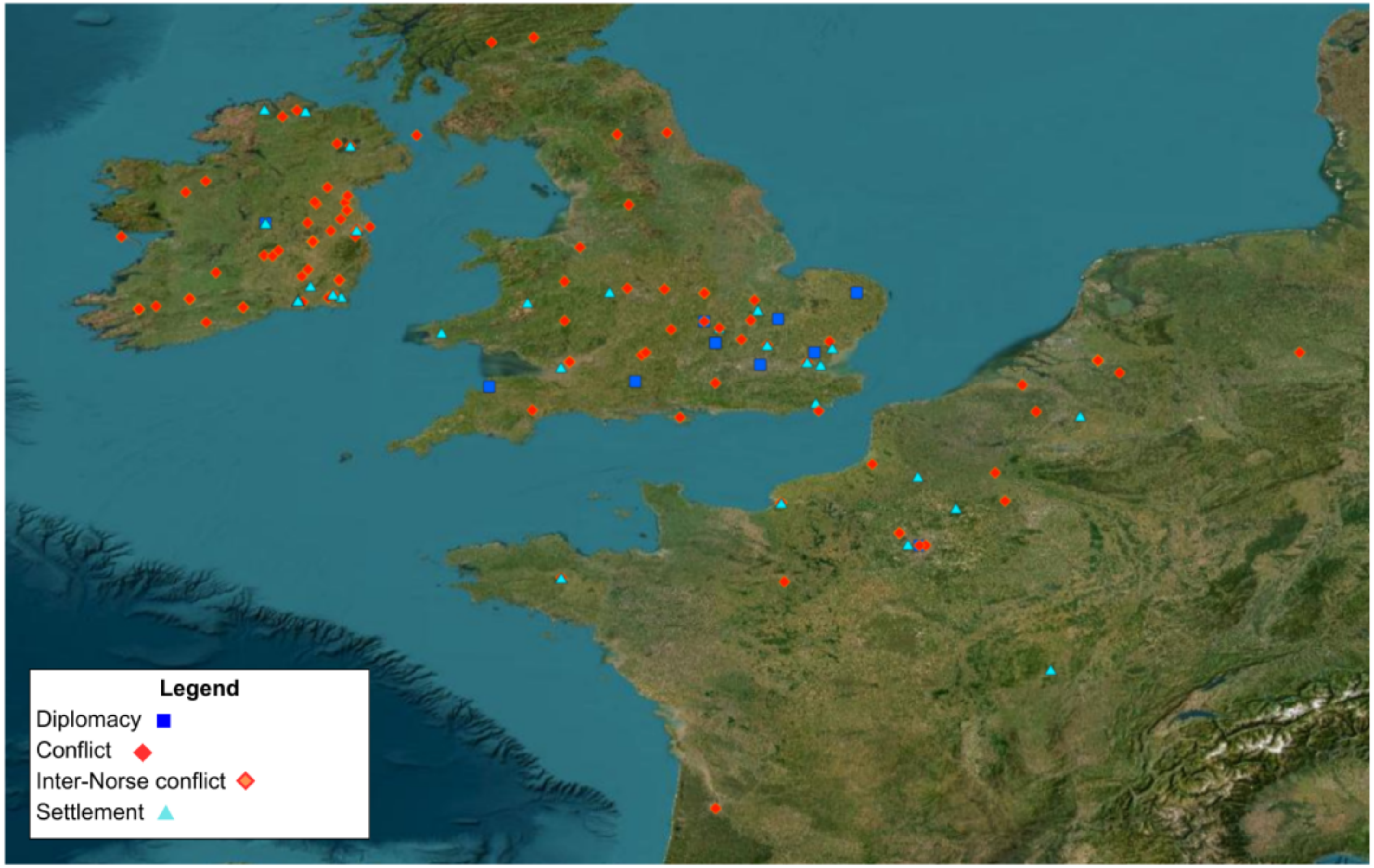
Legend
Diplomacy
Conflict
Inter-Norse conflict
Settlement

Figure 81: Generation 5 (891-920) historical source evidence

Conclusion

The main contribution to the state of the research is thus: there were two separate Norse groups within and beyond Scandinavia at the beginning of the Viking Age, and while the groups themselves evolved over the course of this period of study, they remained disparate both geographically and politically. As is clear from the above chapters, the combined evidence of the Viking Age Norse speaks to a world wherein these peoples were fully active members of the complex geopolitical landscape of Atlantic Europe. When the records and artefacts are brought together within the context of the rich and varied corpus of Viking Age research, the argument for looking beyond regional and national boundaries is strengthened.

The project has demonstrated the possibilities available through the process of deep mapping. New methodologies applied to existing data can yield exciting results. Ultimately, the act of deep mapping answers the problem posed by both Immanuel Kant in the 18th-century and Cindy Bukach in the 21st: through GIS can one visualize time.

Research aims and questions: addressed and answered

Viking Age research has suffered due to the imposition of regional and national boundaries, which has narrowed and limited understandings of who and what the Norse peoples were. It has been argued here, and by scholars before me, that a geographic and chronological overview of the evidence was necessary to break free from these antiquated narratives. The steps entailed proved difficult and disparate, and ultimately the datasets are not complete. Yet, that in itself is an exciting aspect of the research: the corpus of evidence, particularly in the world of archaeology and archaeological sciences, continues to grow. Even though the dataset of historical source references is largely complete within the goal of compiling annals and chronicles up to the year 920, there is a wealth of contemporary material that may enrich this study further. These annals and chronicles are the first step in a living compendium, but they can be expanded and added to by adding event references until the middle and high medieval period. Furthermore, these contemporary sources can be added to and improved upon through the eventual inclusion of charters, letters, and hagiography, as well as the additions of new archaeological evidence as they become available.

It should be noted that this project, largely synthetic in nature, was only possible because of the availability of various sources of data. It is for this reason, what was gained and what was lost, that this project advocates for an open source, open data research methodology. Such open source data sharing is already popular within STEM, wherein scientists and scholars largely champion the FAIR Data Principles (findability, accessibility, interoperability, and reusability).[602] While these principles "put emphasis on enhancing the ability of machines to automatically find and use the data," there is also significant weight placed on the idea that data, datasets and the queries and calculations applied to them should be reusable and reproducible. It is for this reason that the datasets included in the appendix will be preserved and shared to figshare.com, so that the collected Norse references will be shareable and discoverable to all researchers of the early medieval period.[603]

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[602] M. D. Wilkinson et al., "The FAIR Guiding Principles for scientific data management and stewardship," *Sci Data* 3 (Mar 15 2016), https://doi.org/10.1038/sdata.2016.18, https://www.ncbi.nlm.nih.gov/pubmed/26978244.

[603] "figshare," 2023, https://figshare.com/.

In this way, it is hoped that this project serves as a pedagogical tool for students and scholars.

Ultimately, this project has arrived at its conclusions due to the use of deep mapping and in tandem with a synthesis and interrogation of existing knowledge and hypothesis from the secondary literature. Beyond the collection of the data, it is the distillation of these texts and materials into empirical points of data that allows them to be layered on a map; it is this map that has provided answers and re-examinations of the questions posed.

Firstly, how does the shift from regional to trans-regional historical source use change the narrative of Norse raiding in the early Viking Age? The shift, of course, is monumental, though given the gaps in the historical record the narrative is hardly complete. As discussed in both Chapter 1 and Chapter 2, the quantity and quality of historical evidence differs across Atlantic Europe. For example, Chapter 2 showed that *AU* must be considered in the context of the entire corpus of Irish Annals, and that the information provided by the Irish sources is in itself incomplete without incorporating the Frankish and English texts. National and disciplinary divides have ultimately given undue weight to certain pieces of historical evidence in order to make narratives cohesive within a given landscape. However, by combining the historical contemporary material within one map, each event – each data point – has the opportunity to be given equal consideration. Each individual point is needed to fill out the narrative of the Norse as a whole. By mapping these points, even prior to the use of archaeological evidence, two separate Norse groups begin to emerge. Specifically, the strength of the Danish State can be visualized through their diplomatic interactions with the Frankish Empire.

Moreover, the targeting of Ireland appears to be completely out of sync with Danish goals, suggesting a different Norse group altogether.

Secondly, does the combined silver hoard evidence (ca. 750-950) suggest that the Norse were primarily driven by economic gain? The answer is not so simple, though the Frankish Annals are clear that the Danish kings were motivated by profit, and the Norse were surely carriers of silver from the Baltic to the Irish Sea. Chapter 3 highlighted the advantages of reviewing the European and Asian silver mines and the Atlantic European mints in order to form a more cohesive understanding of silver coin movement across the landscape. The question of the silver mines has plagued scholars for generations, and yet studies of silver and numismatics have not identified where the majority of Europe’s silver was arriving from (and into) by the time that Charlemagne took power. The origins of silver are incredibly important in understanding the geopolitical landscape of Atlantic Europe at the beginning of the early Viking Age, and it is hoped that this project pushes this research even slightly closer to an answer. Additionally, by combining the two coin hoard types (Carolingian and Dirham), the particularity of the Silver Curtain emerged, which in itself calls for further research.

In order to build on this second question, I moved beyond the silver hoard evidence, incorporating both the historical sources and the burial site evidence. Ultimately, deep mapping the combined evidence suggested the Great Army should instead be understood as the Channel Army, whose leaders were pushed from a collapsed Danish kingdom following a devasting civil war. This theory builds on Cooijmans’ discussions of hydrarchy, and understands these invasions in agreement with Raffield's argument that leaders were seeking to carve out their own territories.[604]

The image, of course, for the viking-/Hiberno-Norse is different. The historical evidence suggests that the earliest incursions in Ireland were more frequent and more brutal, targeting ecclesiastical centers that could provide portable wealth. However, by the end of Generation 2, the picture began to change. The Norse set up camps in Ireland, and the burial evidence suggests earlier long-term settlement for both men and women across the east coast of Ireland and up into the Scottish Islands and northwestern Scotland. The hoard evidence alone suggests that a specific group of Norse were active from Dublin east across the Cuerdale Corridor to York, with dirhams linking this activity to the Baltic and possibly the Middle East. This suggests evidence for slave trading, explicitly linking the Norse to motivations of economic gain.

Thirdly, do the combined Norse burials suggest a monolithic Norse culture across the Atlantic European settlements? Chapter 4 revealed a northern Atlantic landscape rich in burials, and yet Scandinavian-type jewelry suggested that only the central and southern Danelaw in England was colonized by the Norse. The different types of evidence cannot be utilized without the other, else the picture would be unbalanced, unclear. It further calls for similar studies to be undertaken and/or similar databases to be set up so that there may be clarity regarding whether Scandinavian-type jewelry is missing from Ireland and the Continent; should absence of evidence be considered evidence of absence? Given also the higher proportion of swords in England and the higher proportion of oval brooches in Scotland, the comparative nature of Iceland’s nearly even brooch to sword representation suggests that the groups operating between the two landscapes came from different regions and operated with different aims.

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[604] Cooijmans, *Monarchs and Hydrarchs.*; Raffiled, "Band of Brothers."

And finally, by applying the combined evidence to a geographic model of deep mapping, how are previous socioeconomic perceptions of the Norse substantiated or disproved? This project has implications for how Atlantic Scandinavia can be interpreted during the long ninth century. More than that, the exercise of deep mapping has given way to an Atlantic Europe that appears more fluid and rich. It is attested that much of what happened can be traced back to the formation of the Danish state, and that the geopolitics of territory consolidation ultimately pushed marauders to focus their efforts outside of Scandinavia. Additionally, not only does the Danish kingdom emerge as a key actor in the events of the Frankish Empire, but there are implications regarding how the Franks thought about their northern neighbors. These [605] question the theory proposed by McKitterick that Charlemagne was not interested in expanding north past the Saxons. It is argued here instead that Charlemagne was indeed interested in expanding northwards, but that the Danes – likely spurred towards unification due to the encroachment of the Franks to the south – presented themselves as a centralized state, ruled over by strong leaders who brooked no quarter. The image of King Godfrid arriving at Schleswig with his fleet and cavalry in 804 cannot be dismissed when placed within the context of the rest of the evidence. It cannot be dismissed when placed within the knowledge of what happened next.

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[605] McKitterick, "Pippinids, Arnulfings and Agilolfings: the creation of a dynasty," 127-35.

The evidence, laid out along a chronological deep map, presents the opportunity for pattern-tracing and storytelling. The existing archaeological evidence can’t be explained without historical context, thus pushing archaeologists towards the historical evidence, which in turn pushes historians back towards the archaeology. Deep mapping creates a feedback loop, driving interdisciplinary scholars to rely on one another. In this way, it is necessary to approach each individual piece of evidence as a piece in a large puzzle. Not all of the narrative claims made in Chapter 5 can be verified, but they are presented as a cohesive interpretation of the available evidence. It is likely that by the mid-eighth century the Danish kingdom was centralized under the control of a ruler or rulers, who were both politically savvy and well-versed in matters of taxation and economy. Just as the Danes were involved in diplomatic and military disputes with the Franks to the south, so too were they in contact with and influenced their northern Norse neighbors.

The idea that the Norwegian realms were in the process of consolidating into kingdoms along the western coast is purely conjecture. The archaeological material is sparse, and the historical evidence is even thinner. However, it is likely that groups of raiders were pushed out by this consolidation process, leading to viking-Norse strikes in the Northern Atlantic and the Irish Sea region; the possibilities of wealth kept them going back for more. The archaeological evidence is clear that it is this Norwegian group that eventually settled in Ireland and northern and western Britain. The collapse of the Danish kingdom in the mid-ninth century is well documented in the Frankish Annals. The deep mapping reveals a hydrarchic system that moved fluidly between eastern England and western Frankia. This project contends that groups in the Irish Sea Region and between the Channel remained largely separate throughout the ninth century.

The ninth century can only be understood by acknowledging that multiple groups under diverse leadership intended to carve out regions of Atlantic Europe not for Empire, but for their own purposes. Ultimately, this process was revealed using multi-layered, multi-region sources of evidence. Thus, it is argued here that this is not the Viking Age, but indeed, it is the age of at least two distinct viking groups.

Note

The Master Databanks, as well as the historical source surveys pertaining to Chapter 2, can be found online here: http://hdl.handle.net/2262/104371

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