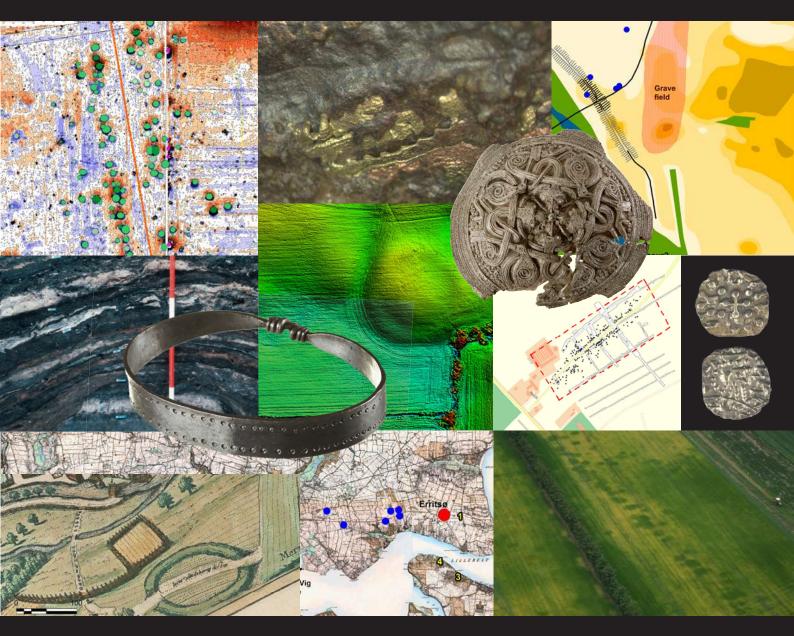


THE FORTIFIED VIKING AGE

36th INTERDISCIPLINARY VIKING SYMPOSIUM

Edited by Jesper Hansen & Mette Bruus



THE FORTIFIED VIKING AGE

36th INTERDISCIPLINARY VIKING SYMPOSIUM in Odense, May 17th, 2017

Published by:

Research Center Centrum Odense City Museums University Press of Southern Denmark

ISBN 978 87 408 3212 9 $\ \odot$ The scientific editors and the authors

Scientific editors: Jesper Hansen & Mette Bruus Graphical design: Rikke Reimann

Distributed by:

Odense City Museums Overgade 48 DK-5000 Odense C museum@odense.dk www.museum.odense.dk

University Press of Southern Denmark Campusvej 55 DK-5230 Odense M press@forlag.sdu.dk www.universitypress.dk

THE FORTIFIED VIKING AGE

36th INTERDISCIPLINARY VIKING SYMPOSIUM in Odense, May 17th, 2017

Edited by Jesper Hansen & Mette Bruus

Kulturhistoriske studier i centralitet Archaeological & Historical Studies in Centrality, vol. 3 2018

Research Centre Centrum Odense Bys Museer/Odense City Museums Syddansk Universitetsforlag/University Press of Southern Denmark

PROGRAMME - 17 May 2017

Mette Bruus & Jesper Hansen

Welcome and introduction

Lene B. Frandsen

Henne Kirkeby, a fortified settlement on the west coast of Denmark.

Christian Juel & Mads Ravn

Erritsø – A fortified Early Viking Age manor near Lillebælt. New investigations and research perspectives

Simon Nygaard

...nú knáttu Óðin sjá: The Function of Hall-Based, Ritualised Performances of Old Norse Poetry in Pre-Christian Scandinavian Religion

Jens-Bjørn Riis Andresen

Trælborg – temporary camp or safety retreat?

Arjen Heijnis

Early Viking camps in Scandinavia and abroad

Mads Runge

New archaeological investigations at Nonnebakken

Nanna Holm

Borgring - the fifth, the first or somewhere in between?

Frauke Witte & Astrid Tummuscheit

The Danewerk in the light of the recent excavations

Morten Søvsø

Emporia and town walls, ring fortresses and Christian mission

- how the Jelling dynasty won all of Denmark

Content

Contributors	6
PREFACE / THE FORTIFIED VIKING AGE 36th Interdisciplinary Viking Symposium - 17 May 2017 Mette Bruus & Jesper Hansen	7
Henne Kirkeby Vest, a fortified settlement on the West coast of Denmark Lene B. Frandsen	8
Erritsø – A fortified Early Viking Age manor near Lillebælt. New investigations and research perspectives Christian Juel & Mads Ravn	16
nú knáttu Óðin sjá: The Function of Hall-Based, Ritualised Performances of Old Norse Poetry in Pre-Christian Nordic Religion Simon Nygaard	26
Early Viking camps in Scandinavia and abroad	35
New archaeological investigations at Nonnebakken, a Viking Age fortress in Odense Mads Runge	44
The Borgring Project 2016–2018 Jonas Christensen, Nanna Holm, Maja K. Schultz, Søren M. Sindbæk & Jens Ulriksen	60
The Danevirke in the light of recent excavations	69
Emporia, sceattas and kingship in 8 th C. "Denmark" Morten Søvsø	75

Contributors

Mette Bruus

University Library of Southern Denmark

Campusvej 55 DK-5230 Odense M metteb@bib.sdu.dk

Jonas Christensen

Museum Southeast Denmark

Algade 97

DK-4760 Vordingborg jc@museerne.dk

Lene B. Frandsen

ArkVest, Varde Museums

Lundvej 4 DK-6800 Varde lbf@arkvest.dk

Jesper Hansen

Odense City Museums

Overgade 48 DK-5000 Odense C Jesha@odense.dk

Arjen Heijnis Aarhus University Moesgård Allé 20 DK-8270 Højbjerg arjenh@cas.au.dk

Nanna Holm

Museum Southeast Denmark

Algade 97

DK-4760 Vordingborg nh@museerne.dk

Christian Juel Vejle Museums Spinderigade 11E DK-7100 Vejle chjue@vejle.dk

Simon Nygaard Aarhus University Jens Chr. Skous Vej 3 DK-8000 Aarhus C sn@cas.au.dk Mads Ravn Vejle Museums Spinderigade 11E DK-7100 Vejle marav@vejle.dk

Mads Runge

Odense City Museums

Overgade 48 DK-5000 Odense C mtr@odense.dk

Maja K. Schultz

Museum Southeast Denmark

Algade 97

DK-4760 Vordingborg mks@museerne.dk

Søren M. Sindbæk Aarhus University Moesgård Allé 20 DK-8270 Højbjerg farksms@cas.au.dk

Morten Søvsø

Museum of Southwest Jutland

Tangevej 6B DK-6760 Ribe

mosvs@sydvestjyskemuseer.dk

Astrid Tummuscheit

Archäologisches Landesamt Schleswig-Holstein

Brockdorff-Rantzau-Straße 70 24837 Schleswig, Germany

Astrid.Tummuscheit@alsh.landsh.de

Jens Ulriksen

Museum Southeast Denmark

Algade 97

DK-4760 Vordingborg ju@museerne.dk

Frauke Witte

Museum Sønderjylland

Dalgade 7

DK-6100 Haderslev frwi@msj.dk

The fortified Viking Age

36th Interdisciplinary Viking Symposium – 17 May 2017

Mette Bruus & Jesper Hansen

The theme of the symposium was *The Fortified Viking Age*. Ever since the days of Saxo and the story of Thyra Dannebod as the builder of the Dannewerk, fortification has been seen as an integrated historical narrative when we describe the centuries of the Viking age. Nowadays, we are not only addressing large externally oriented structures when we research Viking Age fortifications, but also internal structures which are likely to belong in local contexts. Besides regular fortresses and large farms, the fortified facilities include strategic structures oriented towards transport corridors both on land and at sea.

Research has long been focussing on the eventful decades of Harald Bluetooth's reign in the late 900s. However, new studies dealing with the basic settlement development in Viking Age society, as well as (new) studies in a number of specific structures, have provided a new data basis for looking at the genealogy and context of the fortified Viking Age in a broader perspective. This symposium invited presentations which explore these and other themes in Viking Age research. The theme encompasses all periods, genres and disciplines.

We hope you will enjoy reading!

On behalf of the Interdisciplinary Viking Symposium

Mette Bruus and Jesper Hansen (organisers)

Emporia, sceattas and kingship in 8th C. "Denmark"

Morten Søvsø

Introduction

The discovery of 8th C. Ribe in 1972 was the starting point for a series of excavations that proved the existence of a very detailed stratigraphy underneath today's Sct. Nicolaj Gade north of the small Ribe River. The sequence covered the time span from c. AD 700 and into the Viking Age (fig. 1). Stratigraphic excavation techniques used since 1985 have allowed fine chronologies in some phases based on dendrochronology. From the very find-rich layers thousands of well-dated artefacts have been recovered including 218 (2016 count) sceattas, small silver coins used in North West Europe during the late 7th and 8th C. Subsequent excavations and research has shown that early Ribe belongs to a small group of large international trading places, emporia, that marks the introduction of urbanism into Scandinavia.

In this paper, the revitalization of Northern Europe's trading networks in the form of emporia during the 7th and 8th Cc is seen in connection with climate studies indicating the existence of a severe cooling period between AD 536 and c. AD 660 caused by volcanic eruptions. The North Sea emporia themselves were distinct cultural phenomena, trading places with coin economies run by kings, and it is argued that the same must have been the case for the three known sites of this character in Southern Scandinavia: Ribe, Reric and Åhus. The emporia and their coin systems support the existence of powerful Danish kingship from no later than the early 8th C. The emporia roughly follow the borders of the realm. At the centre is Lejre, home of the legendary Skjoldunge Dynasty.

Climate studies and the AD 536 dust veil

The advances in the study of ice cores in the course of the 20th C. made it possible to reconstruct past



Fig. 1. Cultural layers covering the time span c. AD 700-c. AD 850. ASR 9 Post Office Excavation 1990-1991. Photo: Museum of Southwest Jutland.

climates with much greater precision. This does not only apply to distant Ice Age cycles. When it comes to the most recent millennia, dendrochronology is available and can be used to correlate the data, allowing changes to be tracked year by year (Larsen et al. 2008). The integration and application of these data in archaeology is still underway, and one phenomenon in particular has been debated, the 536 dust veil. This phrase covers a set of simultaneous climate phenomena in the northern hemisphere recorded in written sources from various cultures which mention extreme weather events like an absence of summer, snow in the summer time, and floods leading to fam-

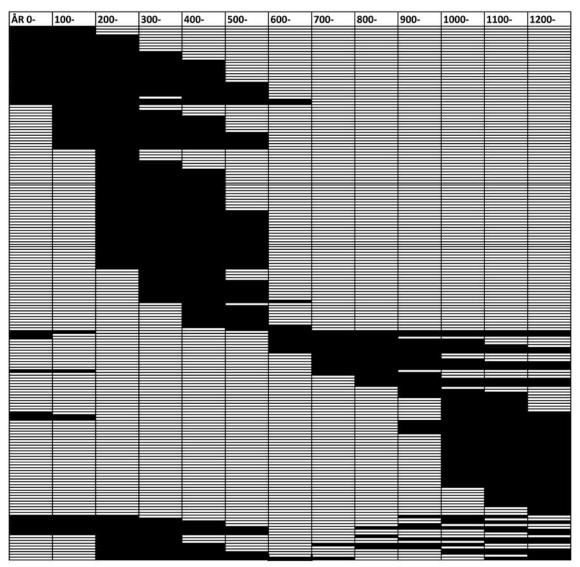


Fig. 2. Each line in the diagram represents one settlement. The 7th C. marks a radical change. From Hansen 2015, 73.

ine and other sorts of hardship (Gunn ed. 2000). In a recent *Nature* study, Eurasian summer temperatures in the last two millennia are reconstructed (Büntgen et al. 2016). The researchers conclude that a series of volcanic eruptions in AD 536, 540 and 547 in combination with low solar activity caused a severe cooling period in the northern hemisphere, termed the Late Antique Little Ice Age, *LALIA*. The model suggests that the years between AD 536 and AD 660 were the coldest in the two first millennia.

The volcanic dust veil in the atmosphere and the cooling period caused by it have been suggested as the catalyzing factor behind the abundance of gold offerings in the mid-6th C. (Axboe 1999; 2001) and the historic background for the Old Norse legends of the Fimbulwinter and the Ragnarök (Gräslund 2007). More recently, a comparison of different archaeological data sets from Middle Sweden with climate data leads to the conclusion that climate change

did in fact have a profound effect on Scandinavian societies (Gräslund & Price 2012).

So far, this line of thought has not been applied systematically to Danish material. For a long time, the 7th C. has been seen as a truly Dark Age in Danish archaeology with both finds and archaeological features being more or less absent (Näsman 1991). With the massive rise in the extent of archaeological fieldwork following the Museum Act of 2002, the source material has been multiplied several times over. However, with a few exceptions, the period c. AD 550-700 remains elusive in the archaeological record.

A recent Ph.D. study focused on a large number of excavated settlements on Funen. It was evident that a major break in the settlement structure occurred in the 7th C. (fig. 2) (Hansen 2015). In addition, other data sets from excavations point in the same direction. In a large random sample of dendrochronological dates from excavations in Denmark, the 7th



Fig. 3. 8th C. emporia and kingdoms/cultural groups around the North Sea. Map: M. Søvsø.

C. stands out as a major hiatus (Daly 2017). These results are well in line with the Swedish study mentioned above.

Perhaps contradicting the idea of a major decline after AD 536 are the finds from metal detecting, where types with a 6th and 7th C. date are quite common: so-called small equal-arm brooches, beak brooches and bird brooches. There is no easy way of telling whether these metal finds represent destroyed graves, ritual offerings or accidental losses on a farmstead (Hansen 2015, 51ff; Søvsø 2018). For now, the apparent contradiction between the absence of well-dated 7th C. settlement and the presence of 7th C. metal finds must be left unresolved.

In conclusion, I think there is reason to believe that there was indeed a cooling period between AD 536 and c. AD 660, and that it resulted in a major ecological crisis in Scandinavia, leading to a decline in population. As the climate improved from the late 7th C., population growth and increased cultural interaction were likely effects.

The emergence of emporia

A distinctive cultural phenomenon associated with the decline of the Roman Empire was the near or total collapse of urbanism in the Romanized parts of Northern Europe. In *the Dark Ages*, the Early Medieval Period (c. AD 500-1000), Roman towns were either abandoned or reduced to scattered farmsteads situated in the ruins of a Roman town. Churches, monasteries or aristocrats may have been present, but their archaeological footprint is at best sketchy (Verhuulst 1999, 1ff; Wickham 2005, 681ff; Theuws 2017).

When urbanism reappeared from the second half of the 7th C. it was in the shape of the so-called *emporia*, riverine or coastal trading places situated in the border zones of the cultural groupings/early kingdoms/polities of the time (Hodges 1989; 2012). They have been the subject of intense study with Richard Hodges' *Dark Age Economics* (1982, 2nd ed. 1989) as the classic text coining the term emporium for this phenomenon. In the sources of the time, different names were associated with them, *vicus* and *portus* being the most frequent (Wickham 2005, 682).

One question has been whether they should be considered urban at all, since they lack the administrative and religious institutions that were integrated parts of both the older Roman and the later High Medieval towns (Wickham 2005, 591ff; Hodges 2012, 91ff). Instead, the emporia were markets driven by trade and craft production, and the sheer scale













Fig. 4. Sceattas found in and around Ribe. On the left a Series E sceatta "porcupine" ASR951x36. In the middle a Series D sceatta "continental runic" NM DK1002 from Dankirke near Ribe and to the right a Series X sceatta "wodan/monster" ASR9x526. 2:1.

and geographical reach of these activities leave little doubt that they were of great economic importance for those who controlled them and equally important centres of cultural exchange.

Excavations in them bring to light an extremely rich archaeological record with an abundance of finds reflecting trade and industrial-scale craftsmanship, including more sophisticated industries like glass bead production and metal casting. The finds reveal a vivid network of both local, regional and inter-regional trade connections, normally in grave contrast to the finds from the rural hinterlands.

Another important characteristic is that the number of emporia is quite limited (fig. 3). Despite intense archaeological activity and debate in the research communities, the number of 8th C. North Sea emporia remains largely unchanged (Sindbæk 2007). A lot of smaller landing sites or local trading places are known, but the activities here are on a smaller scale, far from the magnitude of the emporia.

Their outstanding size, the scale of activities and their geographical location underpinned by numismatics and (few) written sources overall support an understanding of emporia as trading towns controlled by *Reges*, the kings/petty kings/tribal leaders of the later 7th and 8th C. (Wickham 2005, 681ff; Hodges 2012). In return for tolls/levies/taxes. the king secured peace for the traders (Middleton 2005).

The largest and most important emporium was *Dorestad* on the Kromme Rijn near Utrecht, situated in the border zone between Francia and Frisia connecting the Rhineland with the North Sea World (van Es & Verwers 1980; Coupland 2010; Hodges 2012, 91ff). *Quentovic* in Northern France and *Domburg* on the island of Walcheren in the Dutch province of Zeeland were other important Merovingian/Frankish emporia of which we know less, due to limited investigation and destruction by erosion (Hill et al. 1990).

In Anglo-Saxon England, *Hamwic* underneath present day Southampton, *Lundenwic* just west of Roman Londinium, *Gipeswic* (Ipswich) and to a

lesser degree *Eoforwic* (York) all bear the archaeological footprint of the emporia. Although not much is known about their early history, there is a striking, almost 1:1 connection between the emporia and the Anglo-Saxon kingdoms of the 8th C. Hamwic belonged to Wessex, Lundenwic was contested but became part of Mercia, Gipeswic served East Anglia and Eoforwic belonged to Northumbria.

Despite a general shortness of silver in 8th C. Europe, different sceatta-type coins were used in the emporia. The coins are small, only 10-12 mm across and weighing little more than one gram (fig. 4). Signs of testing, breaking or piercing is generally absent, indicating use in a controlled coin economy where coins had a fixed symbolic value guaranteed by the issuer, in quite the same way as money today (Metcalf 1993; Metcalf 2014).

The mostly anonymous coins pose serious numismatic challenges, but some types have been associated with various emporia. The Series H sceatta was used in Hamwic, the Series R sceatta in Gipeswic while the Series Y types were minted by the kings of Northumbria and associated with Eoforwic (Metcalf 1993; Hodges 2012, 107 with ref.). On the continent, the most common of all types was the Series E, "Porcupine" sceatta, associated with Dorestad followed by the Series D sceatta, "continental runic" whose association with Domburg is less certain (Metcalf 1993, 174ff; Metcalf 2014; Op den Velde 2015). In Frisia and Anglo-Saxon England, sceattas were not restricted to the emporia but widely circulated. Millions of coins were struck and they circulated and were used in what seems to have been every single village (Metcalf 2014).

Therefore, from the mid-7th C., urbanism reappeared in Northwest Europe in the shape of a few large-scale trading places associated with minting and coin use. The emporia boosted maritime networks and rose to prominence under the patronage of the early kingdoms of the time. An improving climate could be one factor which pushed this development. Keeping this set of observations about conti-



Fig. 5. Reconstruction of the structural layout of Ribe in the 8th C. Blue dots are 8th C. wells. Map: M. Søvsø.

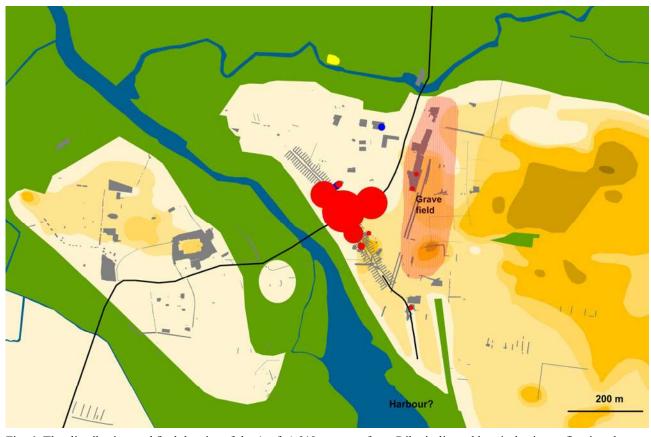


Fig. 6. The distribution and find density of the (so far) 218 sceattas from Ribe indicated by circle size, reflecting the number of coins from different excavations. Excavation areas are in grey. Map: M. Søvsø.

Selected categories of finds from 8th-9th C. Ribe	n
Casting moulds for copper alloy artefacts	10616
Glass bead production waste	14189
Antler waste from comb making	17960
Badorf-ware pottery	863
Tating-ware pottery	273
Sceatta-type coins	218

Table 1: Different categories of finds from 8th-9th C. Ribe. 2016 count.

nental and Anglo-Saxon emporia in mind, we turn to Southern Scandinavia and the West Baltic area where three 8th C. emporia are known: Ribe, Reric and Åhus.

Ribe

At the crossing between the main road of Western Jutland and the small Ribe river, a trading place was established c. AD 700 in the border zone between the Frisian and Danish areas. The cultural divide is based on later, medieval sources. The first mentioning of Ribe or *Ripa* is in *Vita Anskarii*, The life of the missionary Ansgar, written by his successor Rimbert in c. 870. In the text, the young Danish king Haarik (II) granted the missionary a plot in Ribe intended for the construction of a church. This confirms that the Danish king controlled Ribe by this time. The place name is Latin and means river-bank. It is one of very few non-Nordic place names from Denmark.

From the very beginning of the 8th C., glass beads and antler combs were produced in Ribe, and from the early 8th C. large wells were constructed, some by using reused wine barrels from the Mainz region (Daly 2007, 159f). The same type of wine barrels went into the ground as well linings in Dorestad (Eckstein 1978). Before AD 720, a plot structure was established/established itself along an only two-meter wide street for pedestrians running parallel to the riverbank (fig. 5). This Dark Age "High Street" had on both sides 6-8 m wide plots that housed a variety of different traders and artisans. Their activities left a fine stratigraphy with thousands of finds, in the best preserved parts even partially water-logged, from which we have a large number of dendrochronological datings within the time range c. 705 to after 855 (Feveile ed. 2006).

Both the activities on the plots and the layout of the site as an "Einstrassenanlage" (Ellmers 1984, 176ff) has clear parallels in the other North Sea emporia, particularly Dorestad. However, no other known site has a stratigraphy comparable to Ribe's, allowing archaeologists a very detailed insight into the activities in the 8th and 9th Cc (fig. 1; tbl. 1).

Since its discovery through Mogens Bencard's ground-breaking excavations in the 1970's, a number of other excavations have been done (Bencard et al. eds. 1981-2010; Feveile ed. 2006). All of these were rescue excavations prior to construction works, or narrow trenches.

One of the more sensational finds coming out of the 1970's campaign was a number of sceatta-type coins. So far 218 (2016 count) have been found in Ribe, all as single finds. The find spots leave little doubt about their use in trade transactions on the plots and show that they represent lost coins (Feveile 2008; Coupland 2010, 100) (fig. 6).

Using the phasing made possible in the stratigraphic excavations, some distinct developments in the coin use appear. In Ribe's first years of existence, sceattas of several different types were present, indicating a trade system where traders used the coins they brought with them. This changed c. 725 and from then on one type, the so-called wodan/monster or Series X sceatta, dominated the coin circulation and maintained this role until c. 800 when it was replaced by a larger, thinner coin in the denarius format but with a similar motif: the so-called KG 5/6 (Malmer 1966) (Tbl. 2).

This distinct distribution of various coin types in the stratigraphy has been found in all stratigraphic excavations so far, and leaves little doubt that what we are seeing is the introduction of a controlled currency based on a monopoly coin: the wodan/monster sceatta (Metcalf 1993, 275ff).

c. 700-725: Sceattas of different types ca. 725-800: Monopoly coin: wodan/monster sceatta

ca. 800-850: Monopoly coin: KG 5/6 denarius.

Phase	Dating	W odan/monster	Porcupine	Continental Runic	BMC 37 Series J	Unique	Sceat	Pennies KG 5-6	Di rh ems	Rom an
Uden fase										
J	1213. cent.									
H/I	820-850							7		
G	800-820	2 1								
F	790-800	5								
Е	780-790	6		1					4 - 7	
D	760-780	6	1							
С	725-760	17 2								1
В	705-725	4	3	3	1	1				
А										

Table 2: The distribution of coins in various phases of the ASR 9 Post Office excavation. In the earliest phase B, c. 705-725, ranges of different sceattas were used. From phase C through F, c. 725-800, the wodan/monster or Series X dominate the coin circulation. The same pattern is visible in the excavations ASR 7, Sct. Nicolaj Gade 8 (1986-87) and ASR 1077, Sct. Nicolaj Gade 14 (1993). After Feveile 2008.

A monopoly coin reflects the power of one issuer to enforce the use of his coin and exclude the use of others. Through exchange rates, the issuer could generate a surplus, and the archaeological evidence for the existence of this sceatta-based system in Ribe for c. 75 years in itself proves its success.

Based on the coin distribution in Ribe's stratigraphy compared with the overall geographic distribution of the wodan/monster sceatta, it has been suggested that this coin was issued by a Danish king and minted in Ribe (Metcalf 1986; 1993; Feveile 2008), though the matter remains debated (Jonsson & Malmer 1986; Williams 2007).

Reric

North of the Hanseatic town of Wismar at a village called Gross Strömkendorf, excavations in the 1990's exposed a coastal trading site identified as *Reric*, a place mentioned in the Royal Frankish Annals (RFA) in 808 (Pöche 2005; Tummuscheit 2010; Kleingärtner 2014, 303ff; Gerds 2015). It is situated in an area which from c. AD 800 was associated with the Slavic tribe/*Stammesverband*, the Obodrites. The town arose in the first half of the 8th C., for which no sources describe the ethno-cultural groupings in the area; and with due caution the geographical setting fits the general cultural border zone model between Obodrites, Saxons and Danes.

The 808 entry in the RFA informs that Reric was a Danish name and that the Danish King Godfred sacked the place this year and transferred the merchants to Schleswig, thereby laying the foundation for what was to become the largest emporium in Scandinavia, Haithabu. It also states that Reric had earlier been of great importance to the Danish king because of the taxes it paid.

Coastal erosion and ploughing has damaged the site, and only earth-dug structures survive. About 100 pit houses have been excavated (fig. 7). They seem to form a north-south band and are mostly evenly distributed, indicating the existence of some sort of no longer preserved plot structure. In the same area, the majority of the 30 excavated wells with dendrochronological dates between AD 735 and 811 have been found. The majority of the pit houses are of a Saxon square type with a fireplace in one corner, allowing a domestic use rather than being just a temporary workshop.

Finds are plentiful and dominated by specialized crafts using amber, antler, glass and metal as raw materials. The trade connections point towards Francia, Scandinavia, and the Baltic Sea region. In recent years, the site has been metal detected with great success. By 2014, 34 sceattas had been found as single finds, of which 24 were of the wodan/monster type.¹

The nature and scale of the activities leave no doubt that Reric was an emporium which started out in the 730s and indeed did shut almost completely down after being sacked by Godfred in 808 and moved to Haithabu. The sceattas indicate a partial coin economy parallel to the system in Ribe. In addition, the name being Danish and Reric's former role as a source of income for the Danish king underline

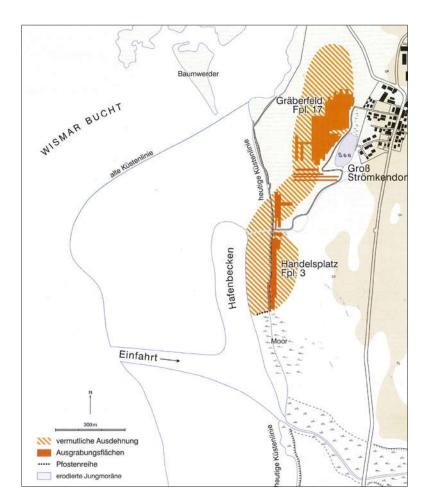


Fig. 7. Reric. The trading place with the pit houses is to the south, Fpl. 3, and the grave field to the north, Fpl. 17. From Kleingärtner 2014.

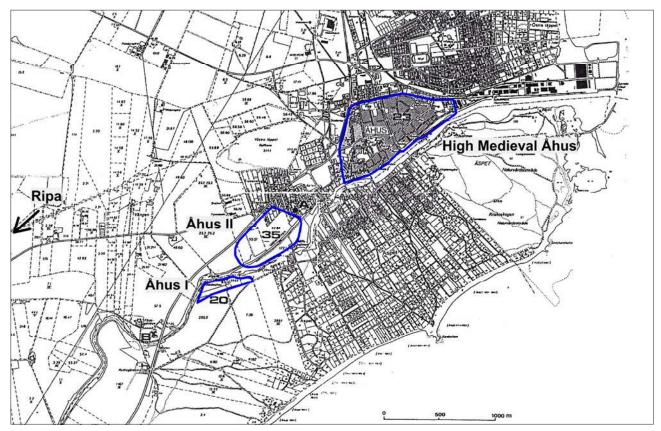


Fig. 8. Åhus in Scania. The village called Ripa is just outside the map. After Callmer 2002 with additions by the author.

the very close connections to the North. The coins and the written evidence suggest partial Danish control of Reric. Whether this also means that the founder was a Danish king remains open. Control may have shifted between Danes and Obodrites. This was the case in Dorestad, where power shifted between Frisia and Francia several times between 670 and 720 (Wickham 2005, 685).

Åhus

In Northeastern Scania close to the mouth of the Helgeå, a trading site from the 8th and 9th Cc has been under excavation since 1979 (Callmer 1984; 1991; 2002). Helgeå means holy river, while Åhus means river mouth. Since medieval times the neighboring village has had the name Ripa, a very unusual place name in Scandinavia, indicating Ripa as one likely name for the trading place and underlining its close connections to an international trade network.² By the time of Wulfstan's travel in the late 9th C., Scania was Danish while Blekinge belonged to the Svear. When King Hemming made peace with Charlemagne in 811 at Denmark's southern border, twelve men accompanied him including one "Asfred of Scania," indicating this landscape may have been regarded as a part of Denmark at the time (A. E. Christensen 1969, 27). No information is available for the 8th C., but nevertheless it is not unsubstantiated to assume that Åhus is situated in the border zone between Danes and the inhabitants of the Blekinge area, probably Svear.

The excavator, Johan Callmer, divided the site into Åhus I south of the river (c. AD 700-750) and Åhus II north of the river (c. AD 750-850) (fig. 8). More than 3 hectares with 149 pit houses have been excavated, resulting in a very large collection of finds resembling the finds from the activities that went on in Ribe and Reric: specialized crafts using glass, copper-alloy, amber, and antler as raw materials.

Lacking dendrochronological datings, the beginning of the site is placed in the first half of the 8th C. based on typological dating of artefacts. Three sceattas have been found, all of the wodan/monster type.

Emporia, sceattas and kingship in 8th C. "Denmark"

The archaeology of the three emporia described above places them in a category of their own. No other known site in the Southern Scandinavian and the Western Baltic region had trade transactions and specialized crafts production on this scale. This does not mean these activities were restricted to the emporia. On a smaller scale, they went on at many local trading places or landing places reflecting the sailing routes of the merchants (Ulriksen 1998). In addition, land-based centres like magnate farms/ elite residences/central places were visited by both traders and artisans, but the scale of trade and craft on these sites were, judging from the archaeological record, only a fraction of what went on in the emporia (Jørgensen 2003; Sindbæk 2007).

The location of Ribe, Reric and Åhus corresponds well with the ethnic/cultural border zone model (Hodges 1989, 52f). Ribe between Frisians and Danes, Reric between Saxons, Obodrites and Danes, and Åhus between Svear and Danes (fig. 9).

The numismatic evidence from Ribe's fine-mesh stratigraphy has revealed a coin economy (at least partially) from the very beginning around AD 700 using various sceattas, which was succeeded in c. AD 725 by a controlled currency based on the wodan/monster sceatta. The 34 (2014 count) unstratified sceatta finds from Reric points in the same direction, and so do the three wodan/monster sceattas from the quite limited excavations at Åhus I. Despite the boom in metal detecting in recent years, sceattas remain very rare in Scandinavia and the Baltic Sea region. The Ribe area, Reric and even Åhus with its only three coins are still the top three find spots in Scandinavia and the Baltic for this type of coin (Näsman 2006, 215; Feveile 2008, 58ff).

The coin finds leave no real doubt that Ribe, Reric and probably Åhus were controlled by a coin issuer minting wodan/monster sceattas in the 8th C. In Ribe, due to the fortunate survival of the stratigraphy, this system can be documented for about 75 years (!). The wodan/monster or Series X sceatta is a challenging coin type with a generally rare but widespread distribution in the North Sea Region including Anglo-Saxon England (Metcalf 1993, 275ff). There is also a distinct Anglo-Saxon/insular type, showing that it was minted in more than one place. The finds from Ribe, Reric and Åhus strongly suggest that one of these places was in Southern Scandinavia. Keeping in mind the distribution of the wodan/monster sceattas and the contemporary coin system in the North Sea region, the only likely issuer is a Danish king.

The location of Ribe, Reric and Åhus in the ethnic/cultural border zones around what later became

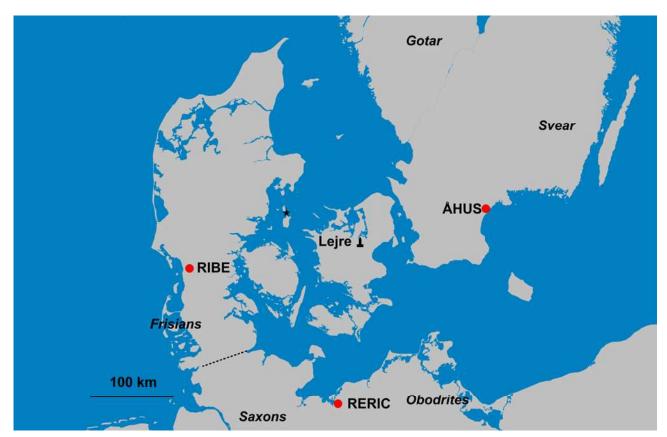


Fig. 9. Southern Scandinavia in the 8th C. A dotted line marks the Danevirke. The Kanhave channel on Samsø is marked by a star.

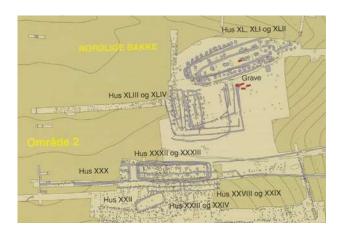


Fig. 10. The partially excavated hall complex at Lejre with Hall buildings XL, XLI and XLII with an associated fenced-off area with special buildings XLIII and XLIV. The combination of a monumental hall building and a fenced-off area containing a smaller building is typical of aristocratic sites in Southern Scandinavia. After T. Christensen 2015.

Denmark seems to outline the existence of this realm already in the 8th C. In the middle we find Lejre, a famous pagan centre mentioned by both Thietmar of Merseburg and Adam of Bremen in the 11th C. (Skovgaard-Petersen 1977, 36ff). In later medieval chronicles, Lejre was renowned as the legendary seat of the Danish Royal Skjoldunge Dynasty. On the site, minor excavations have revealed a sequence of hall buildings of up to 61 m in length – the largest known buildings of this type in Scandinavia and dated to the 8th C. (fig. 10) (T. Christensen 2015, 59ff).

Adam of Bremen also reported that Gamla Uppsala was a pagan centre for the Svear and the scene

for sacrificial offerings as in Lejre. Historians saw this as indicating a lost common source for the information about cultic activities on both sites (Skovgaard-Petersen 1977, 37). However, later excavations in Lejre and Gamla Uppsala have exposed massive hall buildings and rich evidence of pagan rituals (T. Christensen 2015; Ljungkvist & Frölund 2015).

Hall buildings and traces of pagan rituals are known from a range of other aristocratic sites in Scandinavia. These phenomena were widespread and integrated parts of Scandinavia's pagan societies (Jørgensen 2014).

The dendrochronological datings of the Kanhave

channel on Samsø to AD 726 and one very substantial phase of the Danevirke to AD 737 point towards the existence of a strong royal power from the early 8th C. (Wickham 2005, 364ff; Näsman 2006, 221). However, one problem with this model was that the indicators of central power – defences (Danevirke) and urbanism (Ribe/Hedeby) – were clustered in Southern Jutland. This pointed towards this area as the central part of early "Denmark", but the region has neither historical evidence nor archaeological sites associated with the high aristocracy before the mid-10th C., when Jelling became a royal centre (Wickham 2005; 364ff, Näsman 2006, 226).

When the border-zone emporia and the numismatic evidence are added to the argument, it seems more probable that the kingdom of the Danes also included Scania and perhaps at times even parts of the southern Baltic coast already in the 8th C. Lejre lies at heart of this realm, and the huge hall buildings suggest that the association of the Skjoldunge Dynasty with this site was perhaps not as doubtful as most 20th C. historians have suggested (Skovgaard-Petersen 1977, 36ff).

If these considerations are correct, they shed a new light on the failed attempts of the kings Gorm the Old and Harold Bluetooth to establish a new royal centre in Jelling from the mid-10th C. (Holst et al. 2012). Despite huge investments it all failed, and before the year 1000, the centre of the kingdom was back in Eastern Denmark where it used to be and has been ever since.

Bibliography

- Axboe, M. 1999. "The year 536 and the Scandinavian gold hoards". *Medieval Archaeology* 43: 186-188.
- Axboe, M. 2001. "Året 536". Skalk 2001(4): 28-32.
- Bencard, M. et al. eds. 1981-2010. *Ribe Excavations* 1970-76, vol. 1-6.
- Büntgen, U. et al. 2016. "Cooling and societal change during the Late Antique Little Ice Age from 536 to around 660". *Nature Geoscience* 2016.
- Callmer, J. 1984. "Recent work at Åhus: Problems and Observations". *Offa* 41: 1984, 63-75.
- Callmer, J. 1991. "Platser med anknytning til handel og hantverk i yngre jernalder". In: P. Mortensen & B. M. Rasmussen (eds): *Fra Stamme til Stat i Danmark* 2, 29-47.
- Callmer, J. 2002. "North-European trading centres and the Early Medieval craftsman. Craftsmen at Åhus, north-eastern Scania, Sweden ca. AD 750-

- 850+". In: B. Hårdh & L. Larsson (eds): *Central Places in the Migration and the Merovingian Periods, Uppåkrastudier* 6, 125-157.
- Christensen, A. E. 1969. *Vikingetidens Danmark*. Christensen, T. 2015: *Lejre bag myten*.
- Coupland, S. 2010. "Boom and Bust at 9th C. Dorestad". In: A. Willemsen & H. Kirk (eds): *Dorestad in an International Framework*. Turnhout, Belgium, 95-103.
- Daly, A. 2007. Timber, Trade and Tree-rings. A dendrochronological analysis of structural oak timber in Northern Europe, c. AD 1000 to c. AD 1650. Ph.D. thesis, University of Southern Denmark.
- Daly, A. 2017. "Timber-regionality and temporality in Northern Europe's shipbuilding resource. In: Ships and Maritime Landscapes". In: J. Gawronski et al. (eds): *Proceedings of the Thirteenth International Symposium on Boat and Ship Archaeology*. Amsterdam, 334-338.
- Eckstein, D. 1978. "Dendrochronologisch onderzoek naar ouderdom en herkomst van het hout uit waterputten". [Dendrochronological studies on the age and provenance of the timber from the wooden barrel wells of Dorestad/The Netherlands.] *Spiegel Historiael* 13: 308-312.
- Ellmers, D. 1984. *Frümittelalterliche Handelsschiff-fahrt in Mittel- und Nordeuropa (Offa Bücher* 28) 2nd ed. Neumünster.
- van Es, W. A. og J. H. Verwers. 1980: *Excavations at Dorestad* 1. The Harbour: Hoogstraat I. Amersfort.
- Feveile, C. (ed.) 2006: "Det ældste Ribe". *Ribe Studier* vol. 1.1 & 1.2. Højbjerg.
- Feveile, C. 2008: "Series X and Coin Circulation in Ribe". In: T. Abramson (ed.): *Studies in Early Medieval Coinage*, vol. 1. *Two Decades of Discovery*, 53-67.
- Gerds, M. 2015: Das Gräberfeld des frühmittelalterlichen Seehandelsplatzes von Groß Strömkendorf, Lkr. Nordwestmecklenburg.
- Gräslund, B. 2007: "Fimbulvintern, Ragnarök och klimatkrisen år 536-537 e.Kr". *Saga & Sed*: 93-123.
- Gräslund, B. & N. Price. 2012. "Twilight of the gods? The 'dust veil event' of AD 536 in critical perspective". *Antiquity* 86: 428-443.
- Gunn, J. D. (ed.). 2000. "The Years Without Summer. Tracing A.D. 536 and its Aftermath". *British Archaeological Reports International*. Archaeopress.

- Hansen, J. 2015. Landsbydannelse og bebyggelsesstruktur i det 1. årtusinde – et bebyggelseshistorisk regionalstudie. Ph.d. dissertation, Syddansk Universitet.
- Hill, D. et al. 1990. "Quentovic defined". *Antiquity* 64(242): 51-58.
- Hodges, R. 1989. *Dark Age Economics*. 2nd edition. London.
- Hodges, R. 2012. *Dark Age Economics. A new Audit.* London.
- Holst, M. K., M. D. Jessen, S. W. Andersen & A. Pedersen. 2012. "The Late Viking-Age Royal Constructions at Jelling, central Jutland, Denmark". Praehistorische Zeitschrift 87(2): 474-504.
- Jonsson, K. & B. Malmer 1986. "Sceatttas och den äldsta nordiske myntningen". *Nordisk Numismatisk Unions Medlemsblad* 1: 66-71.
- Jørgensen, L. 2003. "Manor and Market at Lake Tissø in the Sixth to Eleventh centuries: The Danish 'Productive' Sites". In: T. Pestell & K. Ulmschneider (eds), *Markets in Early Medieval Europe. Trading and 'Productive' Sites*, 650-850. Windgather Press, 175-207.
- Jørgensen, L. 2014. "Norse Religion and Ritual Sites in Scandinavia in the 6th-11th century". In: H.C. Gulløv (ed.) Northern Worlds – Landscapes, Interaction and Dynamics – Proceedings of the the Northern Worlds Conference, Copenhagen 28-30 November 2012, 129-150.
- Kleingärtner, S. 2014. Die frühe Phase der Urbanisierung an der südlichen Ostseeküste im ersten nachchristlichen Jahrtausend. Wachholtz 2014.
- Larsen, L.B. et al. 2008. "New ice core evidence for a volcanic cause of the A.D. 536 dust veil". *GEO-PHYSICAL RESEARCH LETTERS*, VOL. 35, L04708, doi:10.1029/2007GL032450, Res. Lett., 35, L04708, doi:10.1029/2007GL032450
- Ljungkvist, J & P. Frölund 2015. "Gamla Uppsala the emergence of a centre and a magnate complex". *Journal of Archaeology and Ancient History* (F. Herschend et al. eds.): 16.
- Malmer, B. 1966. *Nordiska mynt före år 1000*. Lund 1966.
- Metcalf, M. 1986. "Nyt om sceattas af typen wodan/monster". *Nordisk Numismatisk Unions Medlemsblad* 6: 110-120.
- Metcalf, M. 1993. Thrymsas and Sceattas in the Ashmolean Museum Oxford.
- Metcalf, M. 2014. "Thrymsas and Sceattas and the Balance of Payments". In: R. Naismith et. al. (eds), *Early Medieval Monetary History. Studies in*

- Memory of Mark Blackburn. Farnham, 243-256.
- Middleton, N. 2005. "Early medieval port customs, tolls and control on foreign trade". *Early Medieval Europe* 2005 13(4): 313-358.
- Näsman, U. 1991. "Det syvende århundrede et mørkt tidsrum i ny belysning". In: P. Mortensen & B. M. Rasmussen (eds): *Fra Stamme til Stat i Danmark* 2, 165-176.
- Näsman, U. 2006. "Danerne og det danske riges opkomst". *Kuml* 2006: 205-241.
- Op den Velde, W. 2015: "The Cothen hoard as witness of the international circulation of sceattas". In: A. Willemsen & H. Kik (eds): *Golden Middle Ages in Europe*, Turnhout, 64-69.
- Pöche, A. 2005. Perlen, Trichtergläser, Tesserae. Spuren des Glashandels und Glashandwerks auf dem frühgeschichtlichen Handelsplatz von Groß Strömkendorf, Landkreis Nordwestmecklenburg.
- Sindbæk, S. M. 2007. "Networks and nodal points: the emergence of towns in early Viking Age Scandinavia". *Antiquity* 81(2007): 119-132.
- Skovgaard-Petersen, I. 1977. "Oldtid og Vikingetid". In: *Danmarks Historie, Bind 1: Tiden indtil 1340*, 15-209.
- Søvsø, M. 2018. "Detektorfund og bebyggelsesarkæologi – på markerne vest for Gl. Hviding kirke ved Ribe". In: V. Hilberg & T. Lemm (eds): *Viele Funde – groβe Bedeutung?* Bericht des 33. Tværfaglige Vikingesymposium. Kiel, 67-80.
- Theuws, F. 2017. "The archaeology and history of the Saint-Servatius complex in Maasstricht (up to c. 1050) contexts, questions, perspectives and problems". In: F. Theuws & M. Kars (eds): *The Saint-Servatius complex in Maastricht. The Vrijthof excavations (1969-70)*. Bonn, 10-47.
- Tummuscheit. A. 2010. Die Baubefunde des frühmittelalterlichen Seehandelsplatzes von Groß Strömkendorf, Lkr. Nordwestmecklenburg.
- Ulriksen, J. 1998. Anløbspladser. Besejling og bebyggelse i Danmark mellem 200 og 1100 e. Kr.
- Verhuulst, A. 1999. *The Rise of Cities in North-West Europe*. Cambridge.
- Wickham, C. 2005. *Framing the Early Middle Ages*. Oxford.
- Williams, G. 2007. "Kingship, Christianity and Coinage. Monetary and Political Perspectives on Silver Economy in the Viking Age". *Silver*, 177-214.

Notes

- 1 Pers. Comm. Dr. Ralf Wiechmann, Hamburg.
- 2 Pers. Comm. Dr. Peder Gammeltoft, Bergen.