



Revealing the biographies of Europe's early medieval trading towns: the case-study of Hedeby

Dr. Volker Hilberg

**Archäologisches Landesmuseum
Stiftung Schleswig-Holsteinische Landesmuseen
Schloß Gottorf, Schleswig**



Definition of a wīc

according to David Hill (2001)

1. Commercial centre
2. Provided with a harbour
3. Pre-Viking date
4. Large occupied area (over 5 ha)
5. No defensive works before AD 850
6. Craft centre
7. Evidence of long-distance trade

Early medieval *emporia* / wīcs of the 7th-/8th centuries in the North Sea area

(Middleton 2005 after Kalmring 2010)

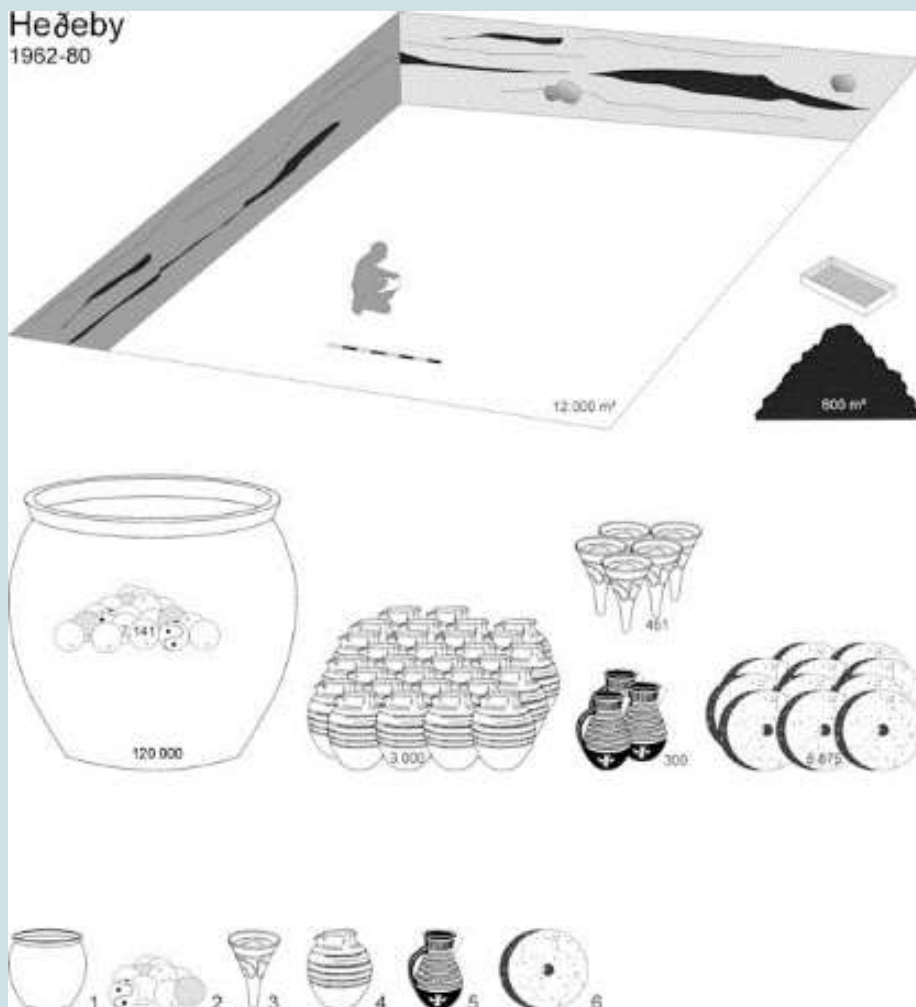


**Badorf ware pottery in
Scandinavia and the Baltic Sea area**
(Brorsson 2010, fig. 20)



**Hedeby: selection of
imported Badorf ware vessel sherds**

Heðeby 1962-80



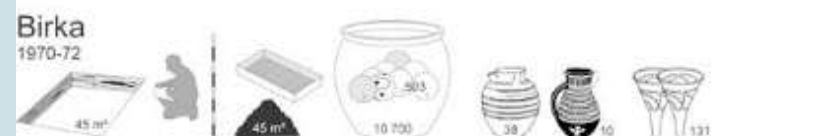
Ribe 1992



Kaupang 2000-03



Birka 1970-72



Åhus 1989-91

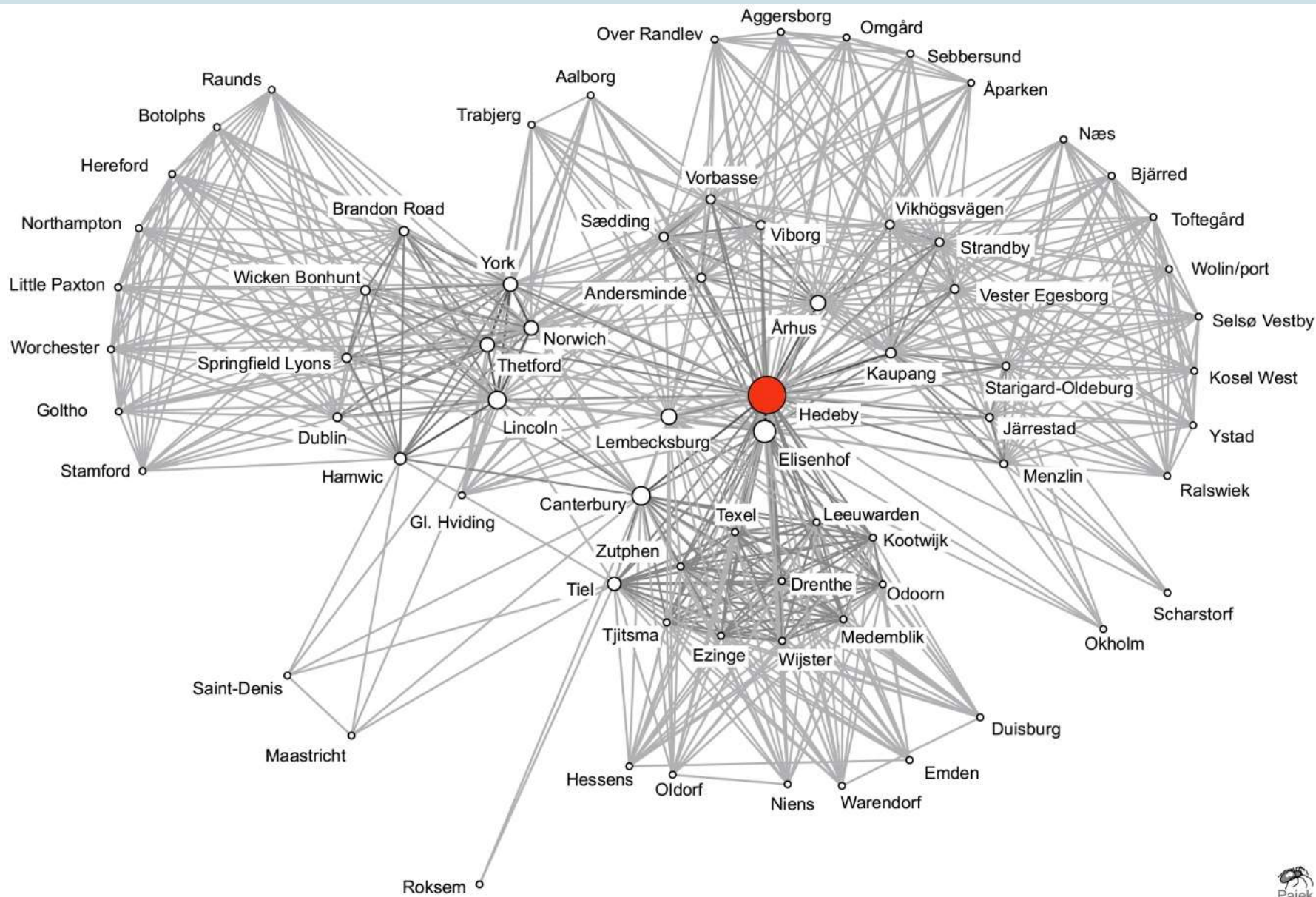


Groß Strömkendorf 1989-92



Søren Sindbæk's synoptic comparison of excavation sizes and selected imports (2008):

„1. Ceramic sherds (domestic & imported), 2. Glass beads, 3. Sherds of glass vessels, 4. Sherds of Badorf-ware, 5. Sherds of Tating-ware, 6. Fragments of Mayen-basalt quernstones. The size of the symbol to the left corresponds to the volume of soil or finds. For the imports to the right, each repetition denotes 100 fragments, except for quernstone: 500 fragments. Small symbols indicate less than five finds in a site.“



Network representation of the associations of ten different types of pottery vessels in 152 settlement-site Assemblages of the 10th c. in the North Sea and Baltic sea areas (Sindbæk 2012)



Significance
of Hedeby's location:

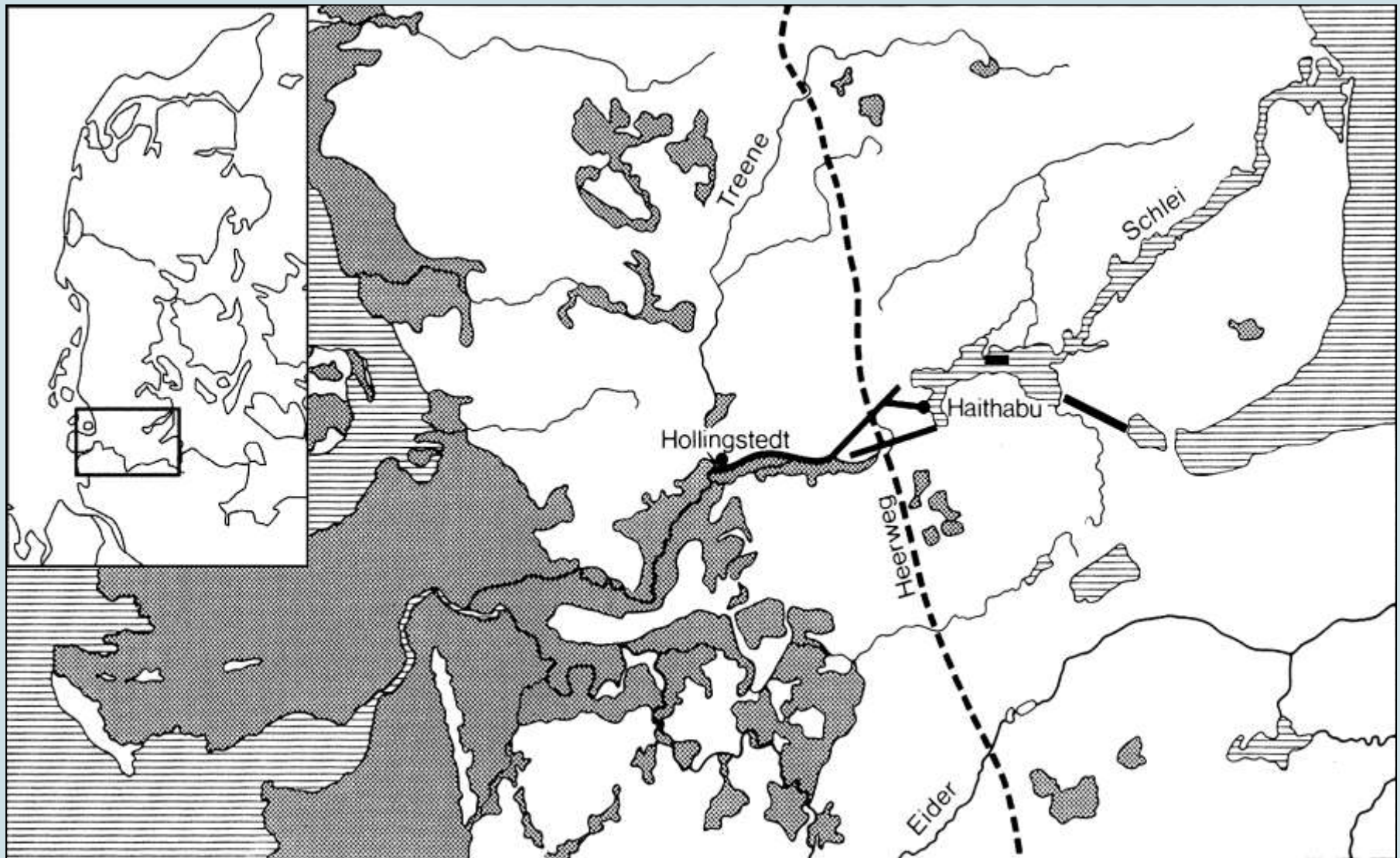
Border area

Node between:
North and Baltic Seas
Scandinavia and the Continent

The 9th century in Northwestern Europe

The significance of the Danevirke

symbolic border – control of traffic – ease of passage between the seas





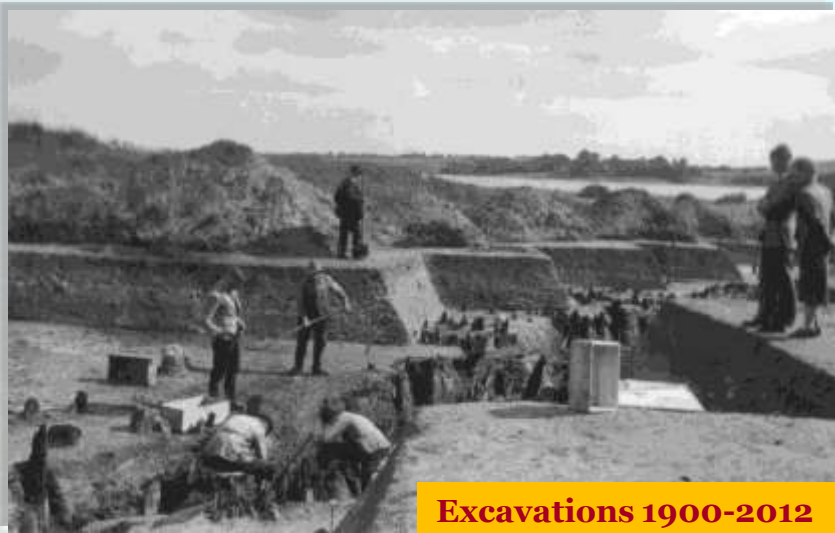
Attested
early medieval
names for *Hedeby*

Hedeby as being mentioned in written records (Kalmring 2010)



Hedeby: King Svend (Forkbeard, 987–1014) rose the two runestones in memory of Skarði (left) and Erik (right), who were killed in action at *Haithabyr*

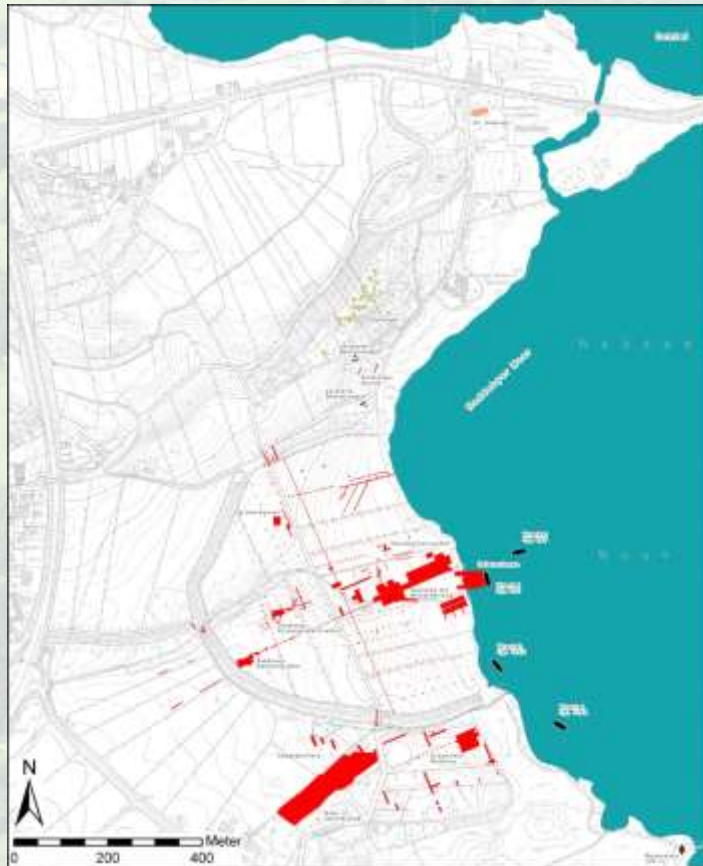




Excavations 1900-2012



**Systematic surface surveys
1967-1970/1995; 2003-2015**



**Geophysical prospection
1981-2013**

**Hedeby with all
excavation areas since 1900**

5 different phases of research strategies:

1900-21: concept of small trial trenches to verify the place's character



1930-39: large scale settlement excavations developed from a trial trench



1962-69: continuation of large scale settlement and cemetery excavations



1979-1980: harbour excavation and ship salvage



2002 onwards: systematic prospections with selective small scale excavations



Facts and numbers from over a hundred years of Hedeby research

1.189 **excavation areas** (GIS)

32.831,6 sqm **excavated areas** (GIS)

1.297 **burials, biritual** (Arents/Eisenschmidt 2010)

44.000 **constructive timbers** from the settlement (Schultze 2008)

2.044 **constructive timbers** resp. 1.641 **post holes** from the harbour (Kalmring 2010)

c. 117.283 pottery sherds (only 1962–69: 2.160,104 kg) **handmade and Baltic ware** (Hahn 1977)

6.401 sherds(171,7 kg) of **imported pottery** (Janssen 1987)

c. 1.500 pottery fragments (c. 200 kg) from the harbour (Lüdtke 2013)

3.428 objects (540 kg) of **soapstone** (Resi 1979)

5.948 **fragments of mill stones** (1.274 kg) (Schön 1995)

19.740 or c. 350 kg **whetstones** (Resi 1990)

3,4 tons of **iron slags** (Westphalen 1989)

12.576 **metalobjects** from systematic metaldetecting (Hilberg 2009)

8.849 **glassobjects** (Steppuhn 1998)

288.000 **deer's antlers** (Ulbricht 1978)

ca. 420.000 **bones of domestic animals** from the harbour (Heinrich 2006)

1.999 **wild mammals** from the settlement and the harbour (Reichstein 1991)

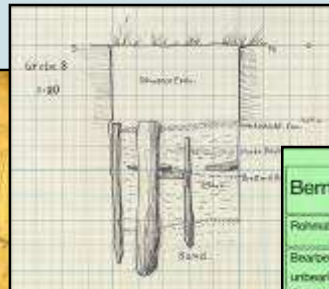
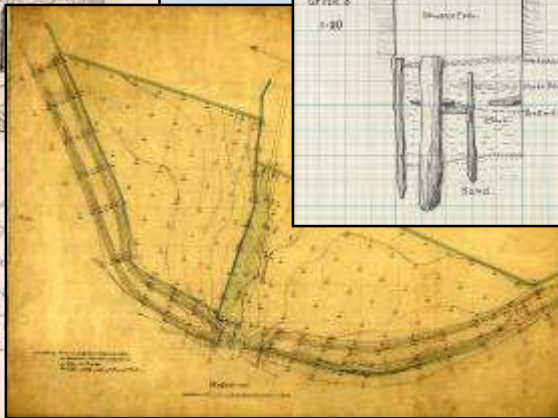
726 **hand laid-up rests of fishes** from the harbour (Heinrich 2006)

c. 17.000 **sieved rests of fishes** from one quadrant of the harbour (Schmölcke/Heinrich 2006)

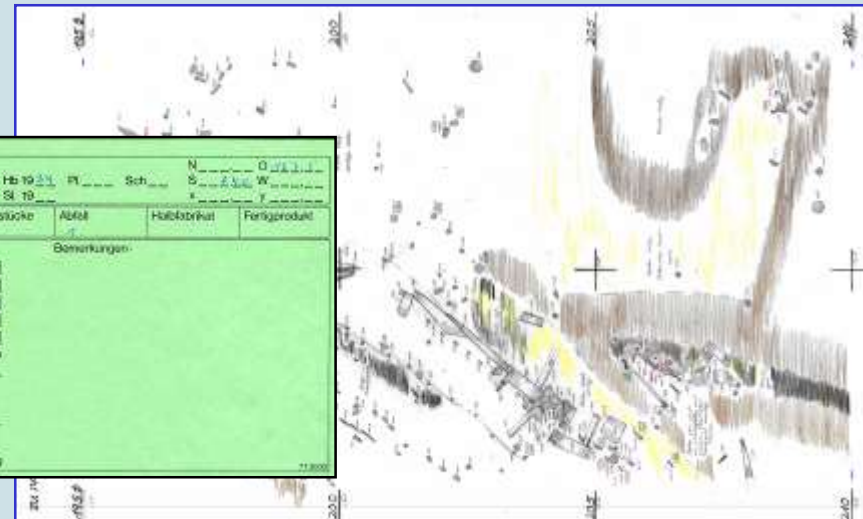
No younger settlement traces



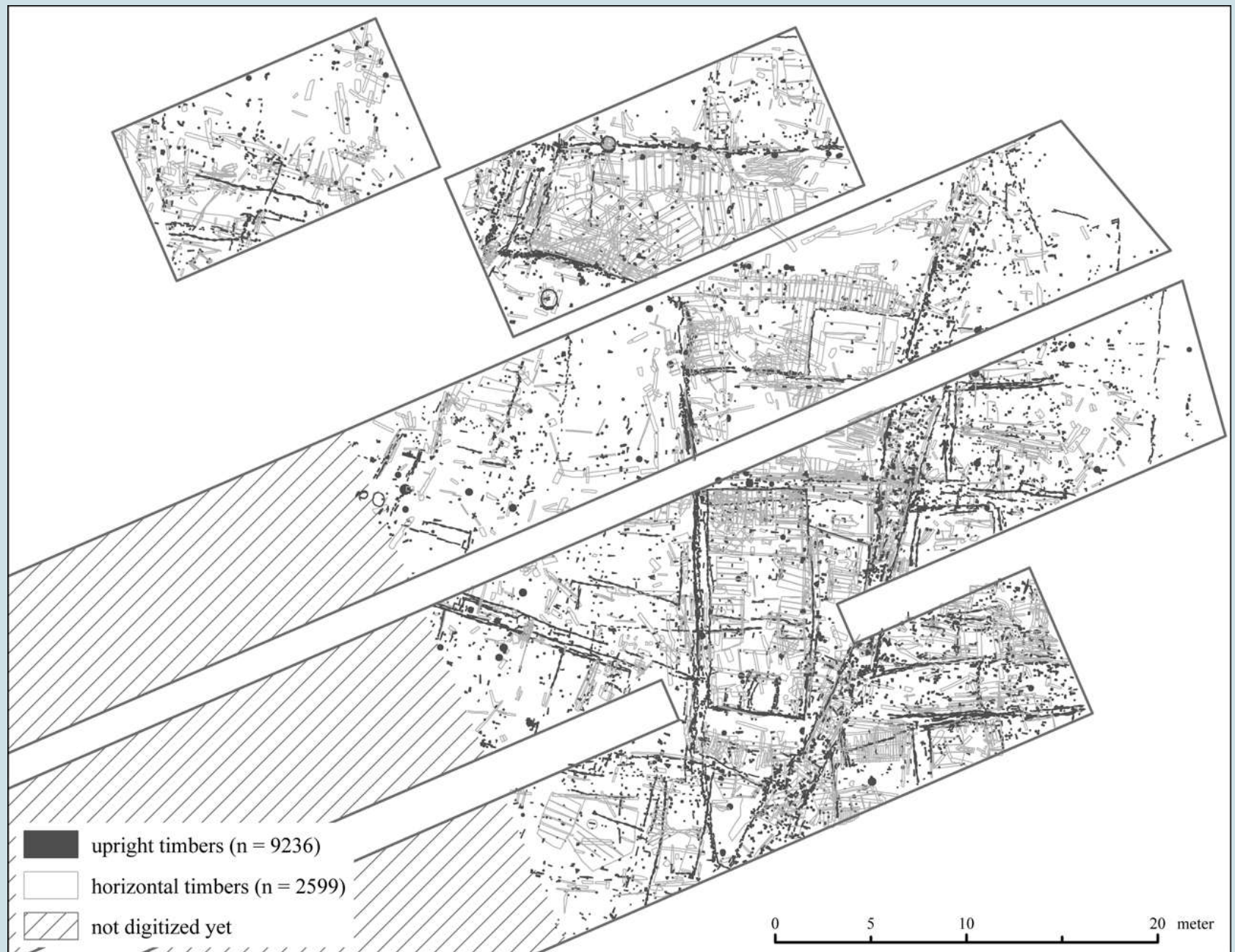
Organic preservation in stratified layers



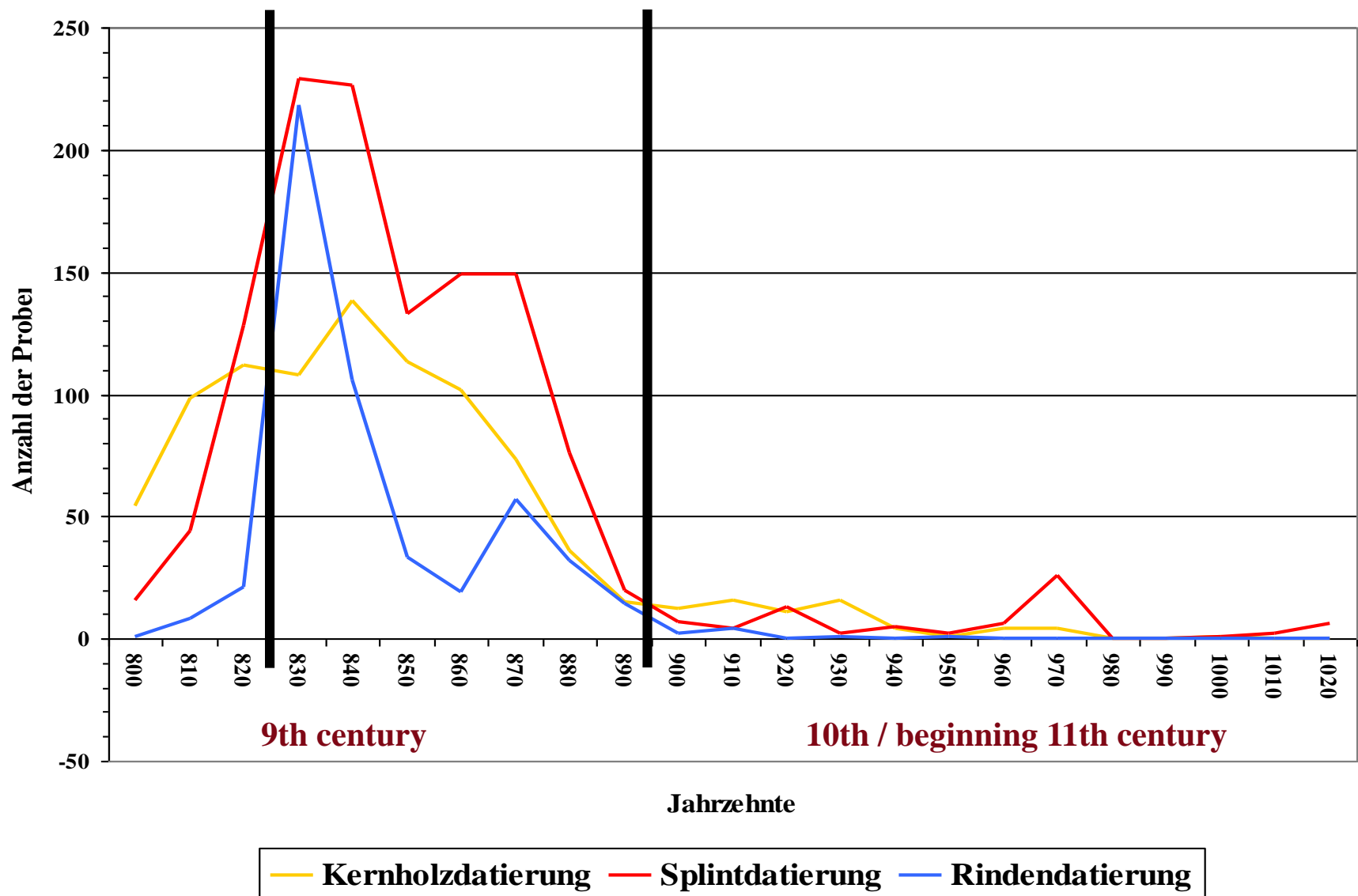
Bernstein				
Probenart	Bruchstücke	Abfall	Halbfabrikat	Fertigprodukt
Bearbeitungsart:	Bemerkungen:			
unbearbeitet	<input type="checkbox"/>			
Schnittspuren	<input type="checkbox"/>			
Schleifspuren	<input type="checkbox"/>			
Druckspuren	<input type="checkbox"/>			
Bohrungen	<input type="checkbox"/>			
Größe (mm):				
L	B			
H	Dm			
Gewicht	g			



Documentation since 1900 without losses



Development of the central settlement area: **830ies AD** (Schultze 2007)



Dendrodates in the central settlement area (Schultze 2007)

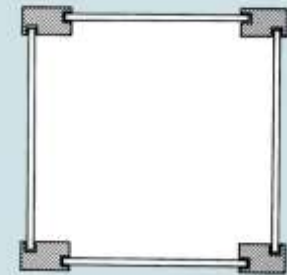


Hedeby –
settlement excavation 1969
Dendrodated well, built in AD 1020

valued as dendrochronologically
attested settlement activity



e



Construction
principle
(Schietzel 1981)

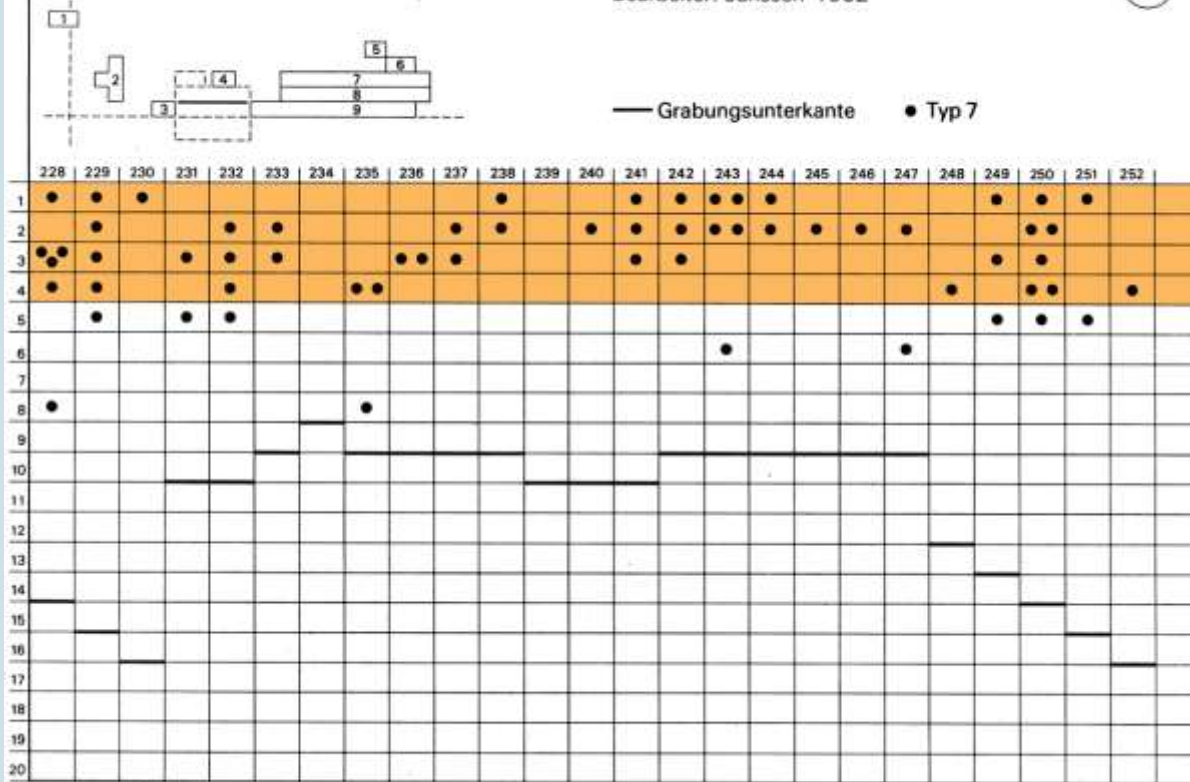


Stratigraphical situation,
excavation 1969

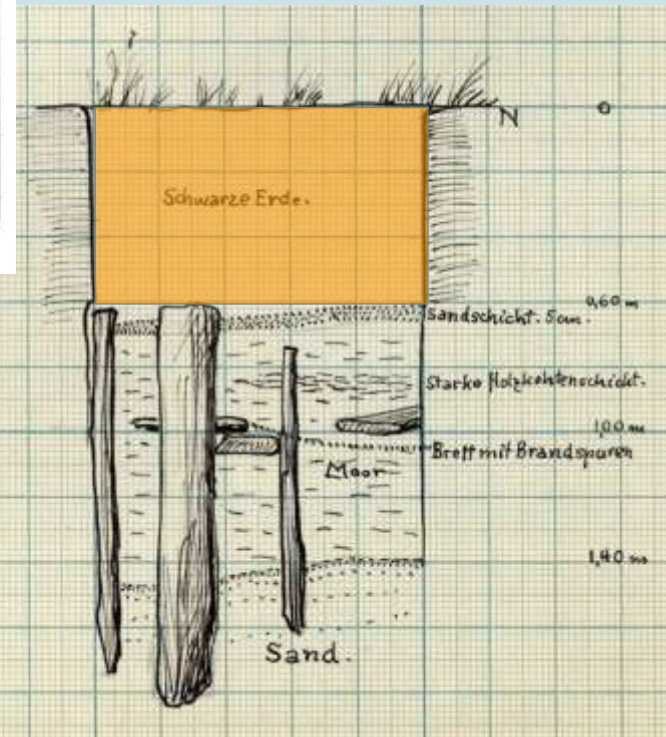
Ausgrabung Haithabu 1966-69

Fundverteilung: Importkeramik
 Bearbeiter: Janssen 1982

7



Kart. 27. Haithabu, Grabungsbereich 7. Vertikale Verteilung der Importkeramik. Typ 7.



Layers of the 10th and 11th centuries
 are not preserved in wood

3. Late settlement features



Hedeby 1967,
central excavation area

Irregular and apparently
ploughed-up
packages of stones
immediately underneath
the surface

Trade, craft-production and the hinterland

Bulk commodities
from the continent:

Lava quernstones

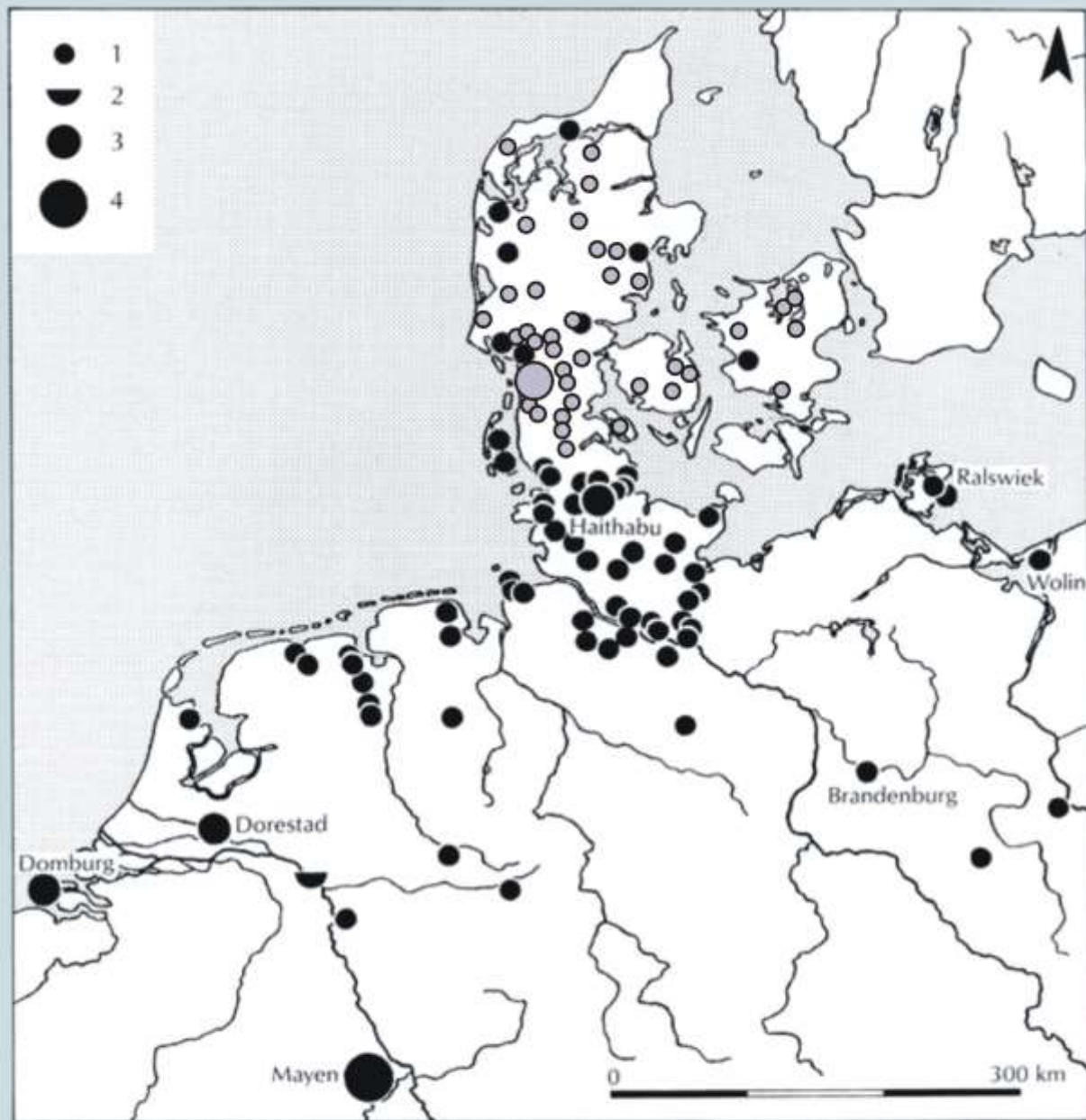


Abb. 18. Verbreitung von Mahlsteinen aus Mayener Basaltlava. 1 - Fundorte; 2 - Fund einer Schiffsladung; 3 - Fundort mit Halbfabrikaten; 4 - Materialvorkommen und Steinbruchbetrieb. Umgezeichnet nach GABRIEL 1991b, mit Ergänzungen.

Interaction
with the
surrounding
hinterland

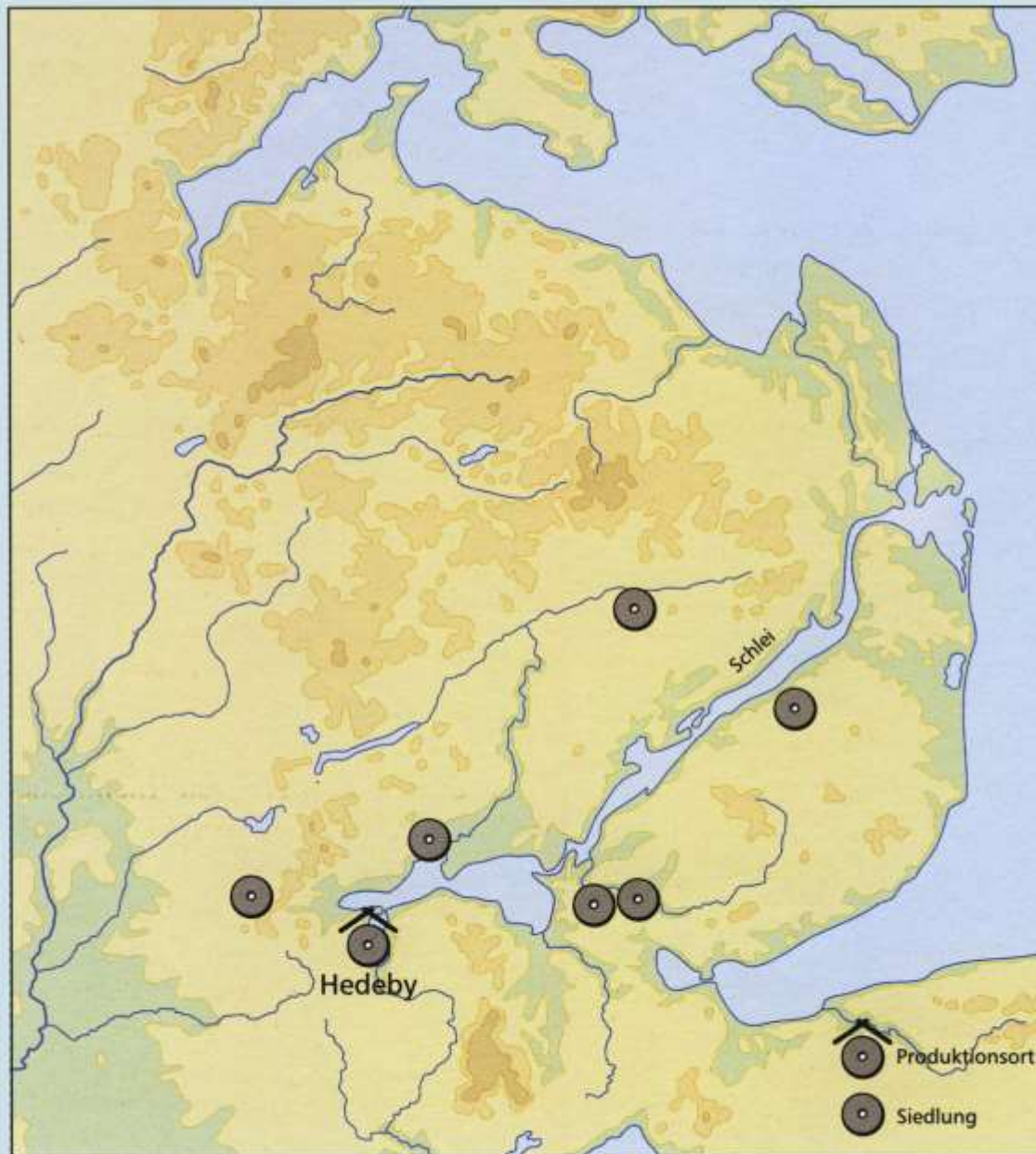
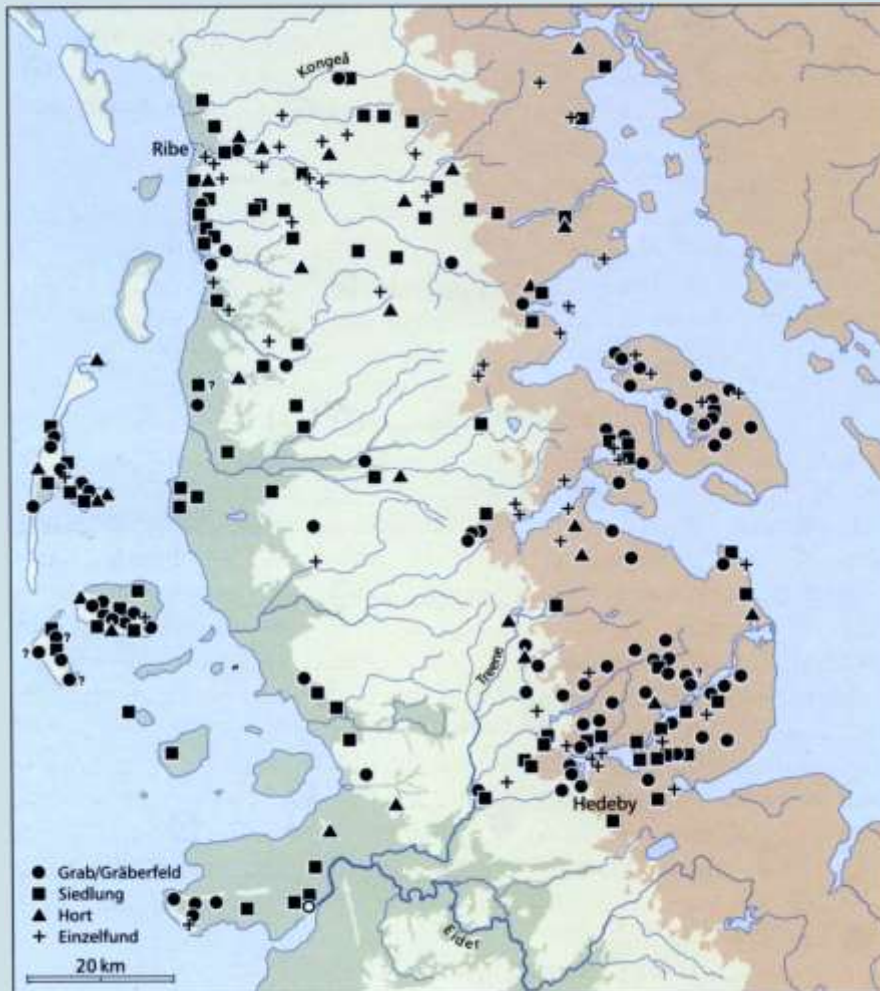


Abb. 18: Wikingerzeitliche Fundstellen von Mahlsteinen aus vulkanischem Tuff im Umland von Hedeby (nach HANSEN 1999). Vgl. Liste 2, S. 41.

Interaction with the *hinterland*

Diet of Hedeby's inhabitants:
dominance of fish and domestic animals



Viking period find spots between Kongeå and Eider
(Eisenschmidt 1998)



Mid-11th c. civitates and their catchment territories
(Randsborg 1980)

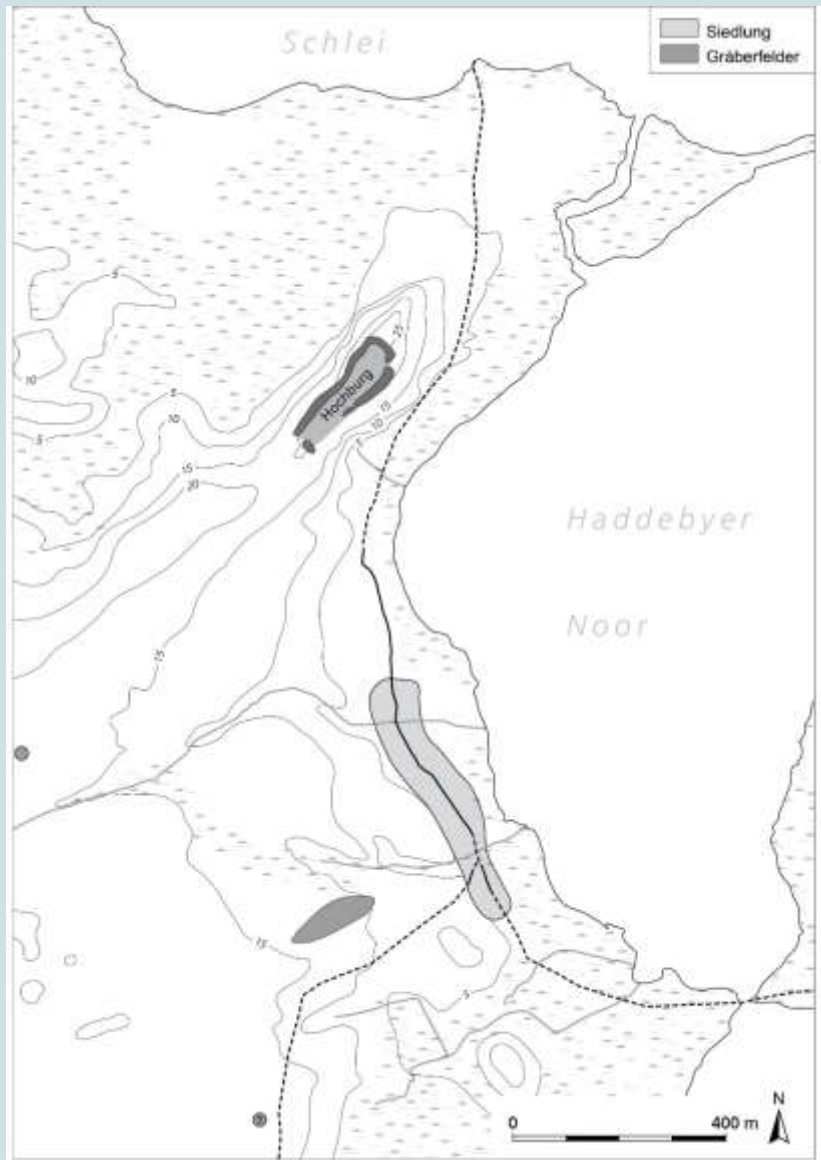
Hedeby's time frame historically

804 & 808:

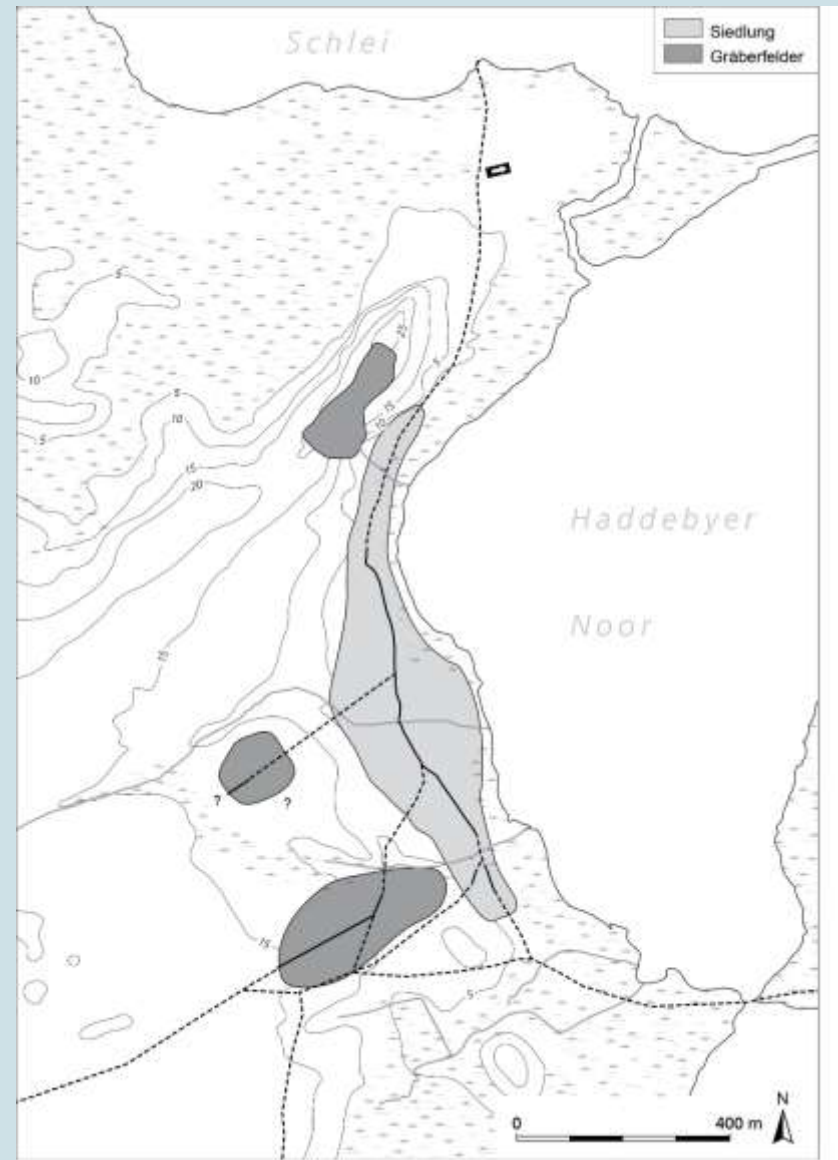
The Danish king Godfrid gathered his retinue and fleet at *Sliesthorp*, after the destruction of the *emporium Reric* he took the merchants on his ships and sailed to *Sliesthorp*

1050 & 1066:

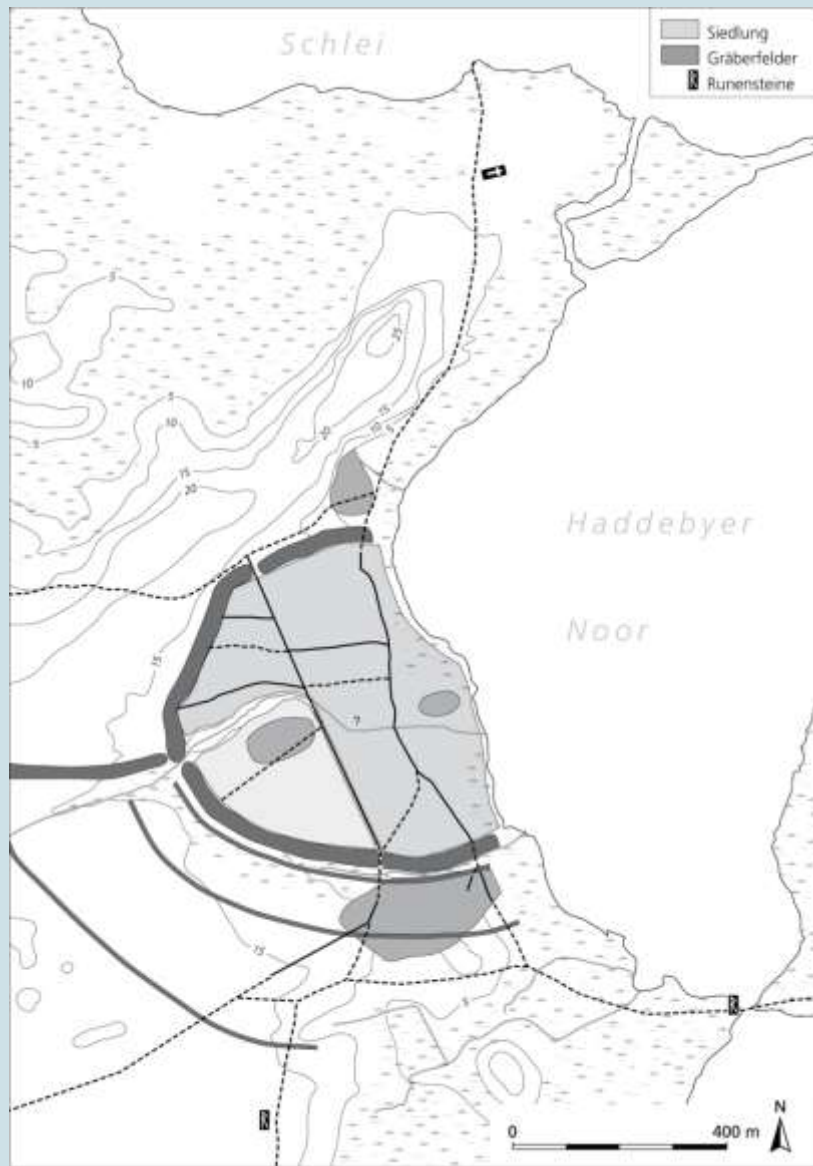
***Sliaswig* plundered by king Harald Hardråde and finally destroyed by pagan Abodrits and Wagrians**



8th century



9th century



10th century

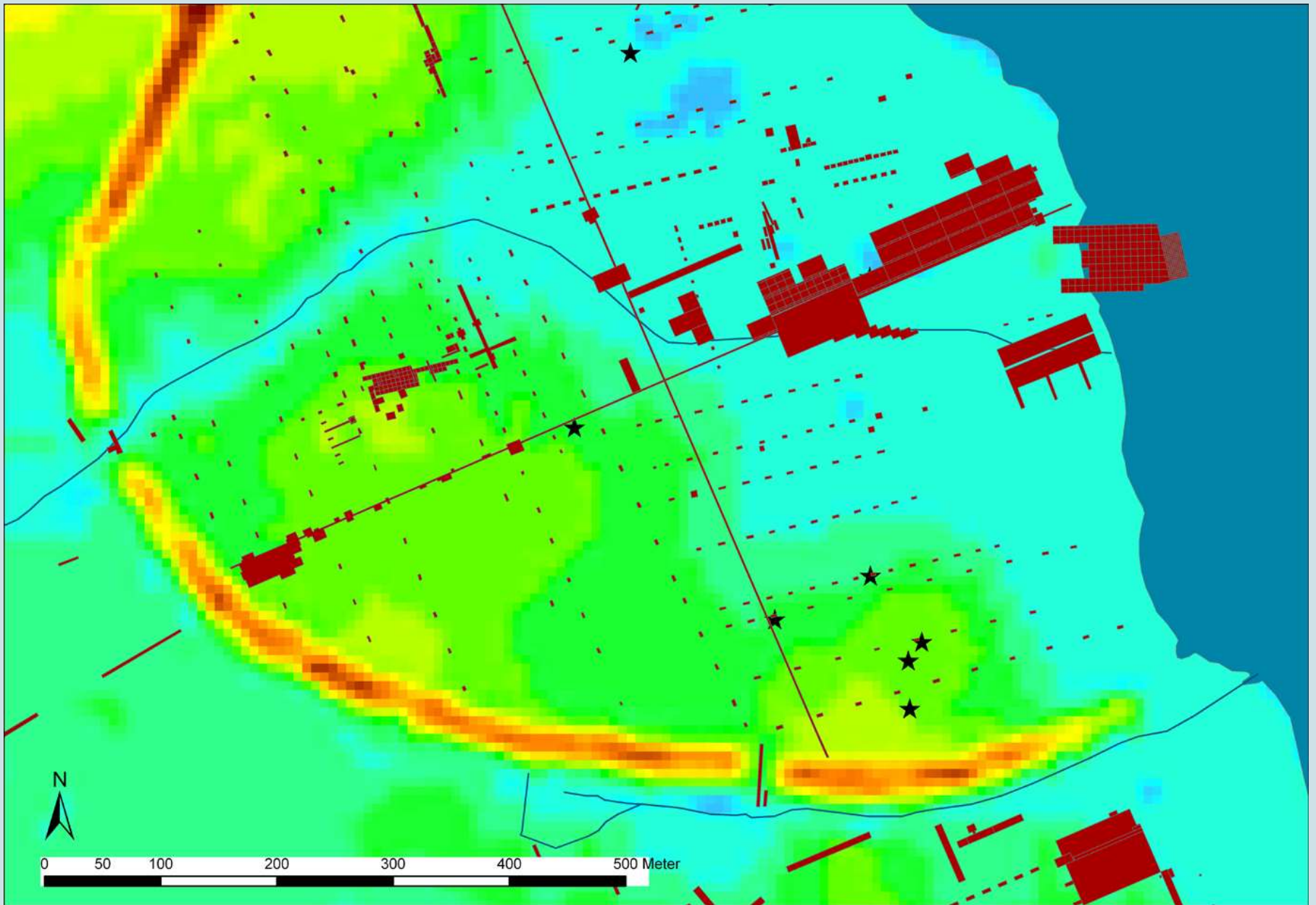


11th century

Hedeby's development: from farmstead to *emporium* ?



Oldest horizon from metal detecting: Settlement start in the younger Germanic Iron-Age



Early finds and topography

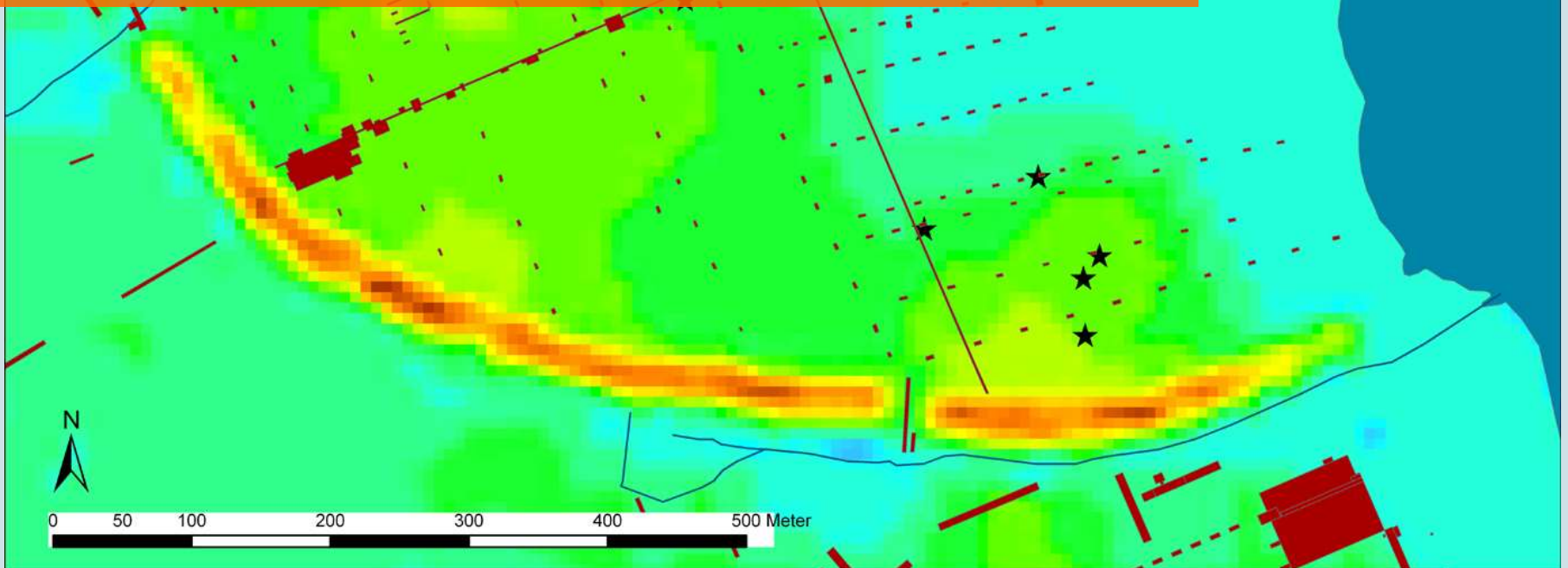
Character of the Southern settlement:

the Southern settlement is **not an emporium**

- low amount of imported pottery
- glass vessels are lacking totally
- only seldom early coinage (2 Wodan-Monster-sceattas)
- evidence of handicraft activities is not outstanding (esp. iron smithing)

It seems to be an excavated **part of a farmstead**

- nucleus for the development into an *emporium*
- comparable to the development in Birka (Arrhenius 1976)



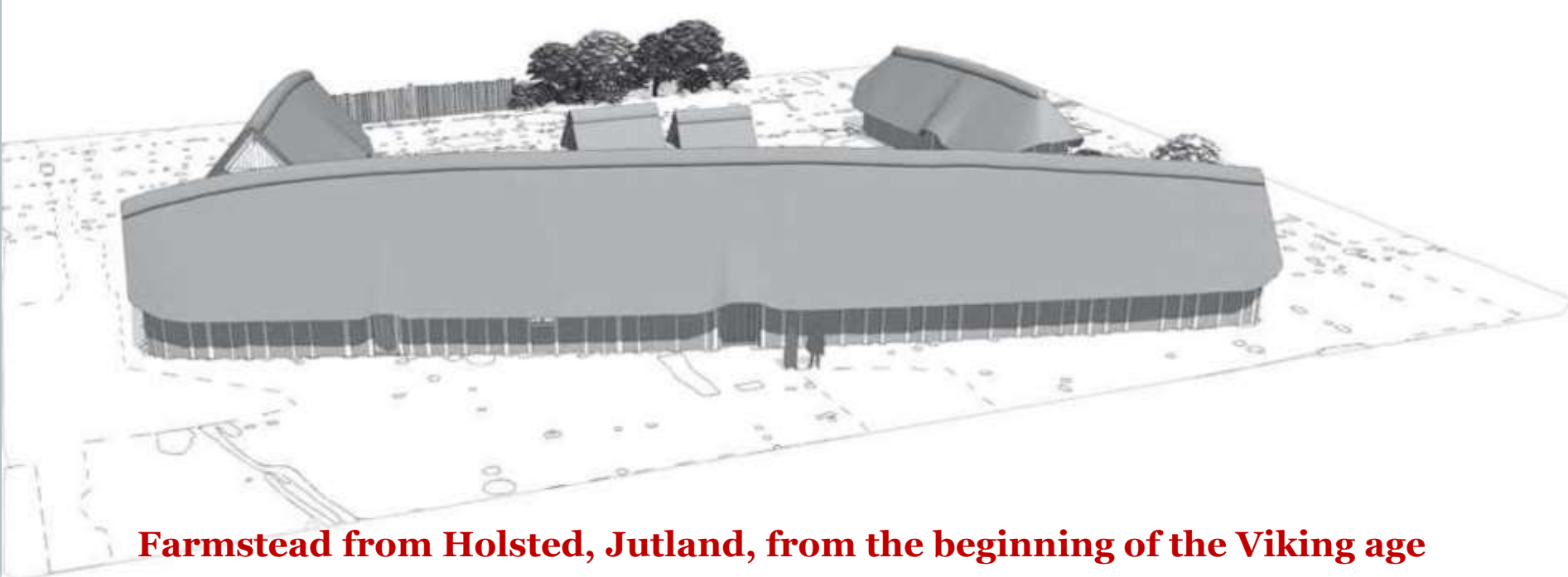
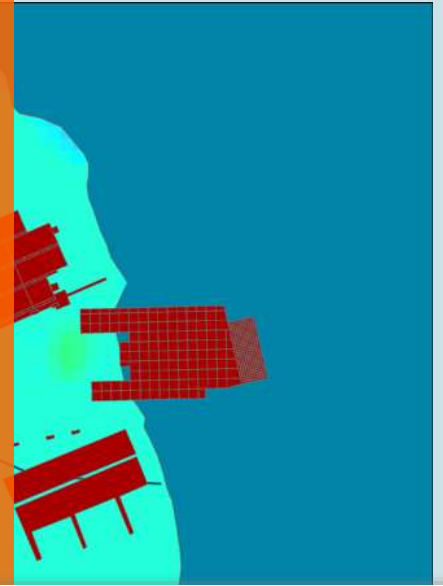
Character of the Southern settlement:

the Southern settlement is **not an *emporium***

- low amount of imported pottery
- glass vessels are lacking totally
- only seldom early coinage (2 Wodan-Monster-sceattas)
- evidence of handicraft activities is not outstanding (esp. iron smithing)

It seems to be an excavated **part of a farmstead**

- nucleus for the development into an *emporium*
- comparable to the development in Birka (Arrhenius 1976)



Farmstead from Holsted, Jutland, from the beginning of the Viking age



Hedeby's harbour as one of the most important structural elements



Hedeby: Reconstructed harbour jetty, built in the winter AD 885/6, space 385 sqm

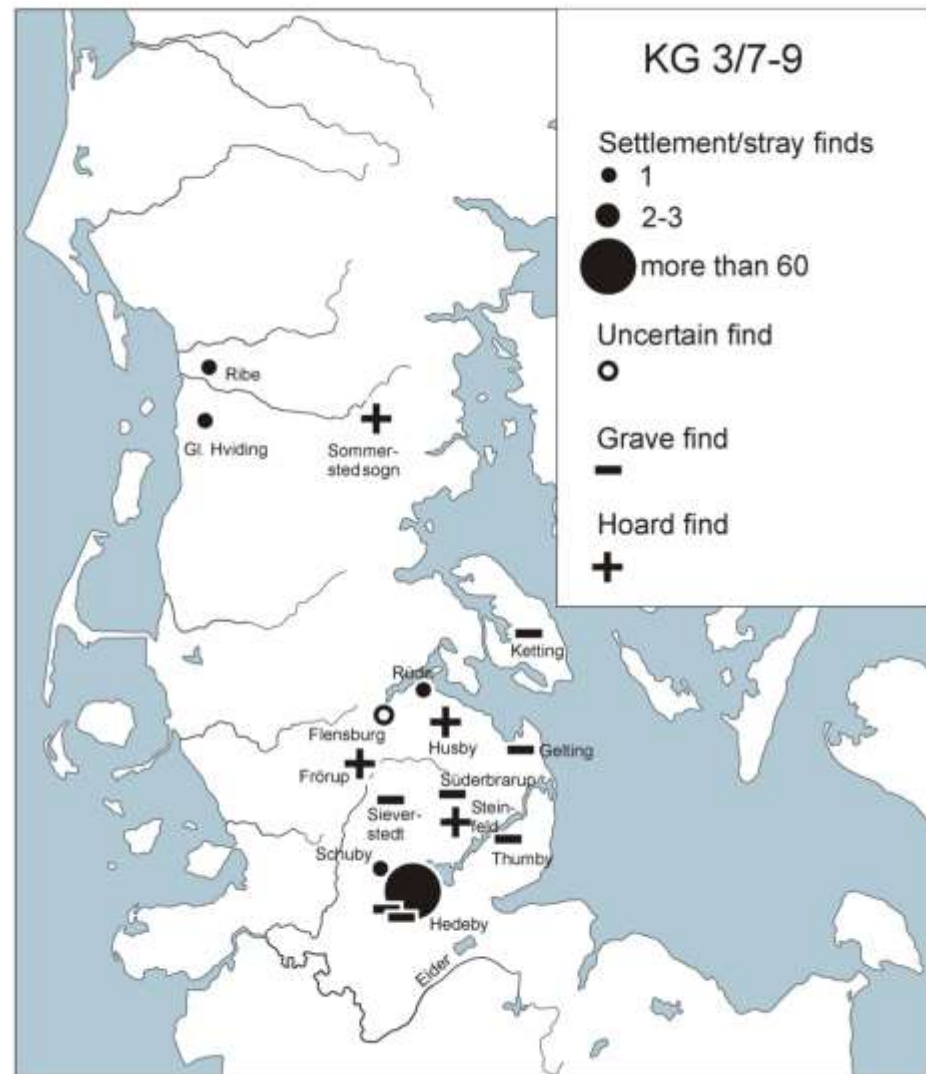


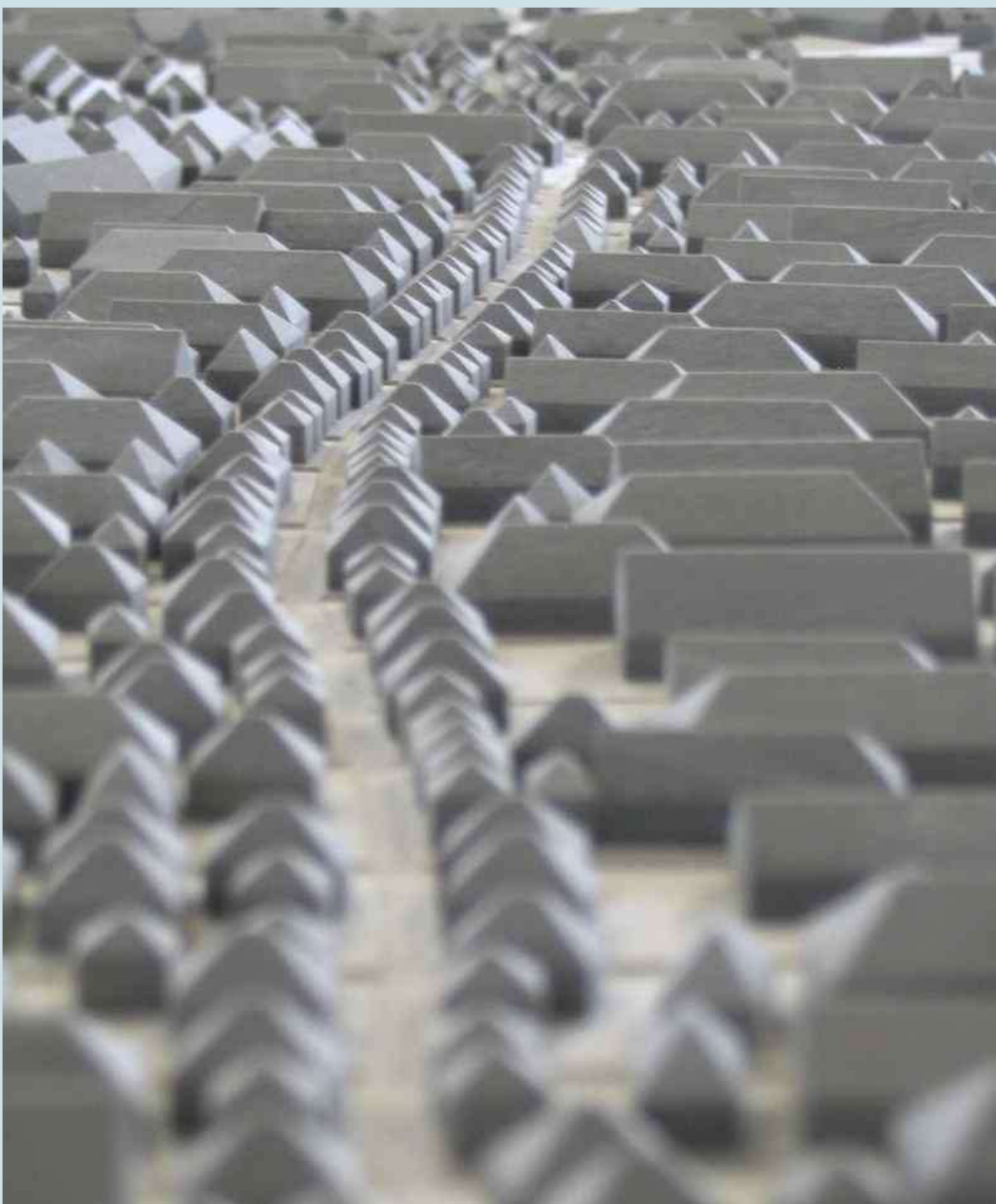
The Carolingian influence: 9th century continental pseudo-coinbrooches found in Hedeby



Hedeby in the 820s:
Own coinage
as a basis for trade and tolls

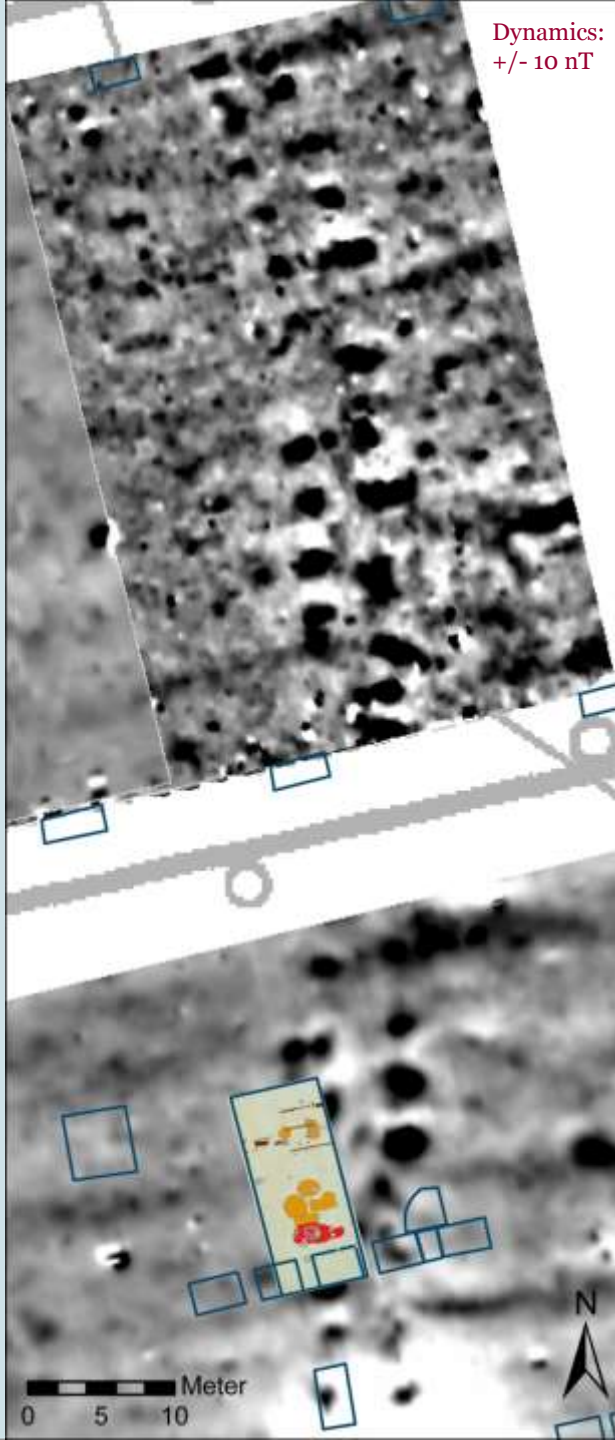
Archetype:
Charlemagne's pre-reform coinage in Dorestad





Reconstruction of
one of the main
streets through the
settlement
(seen from the south)

Dynamics:
+/- 10 nT



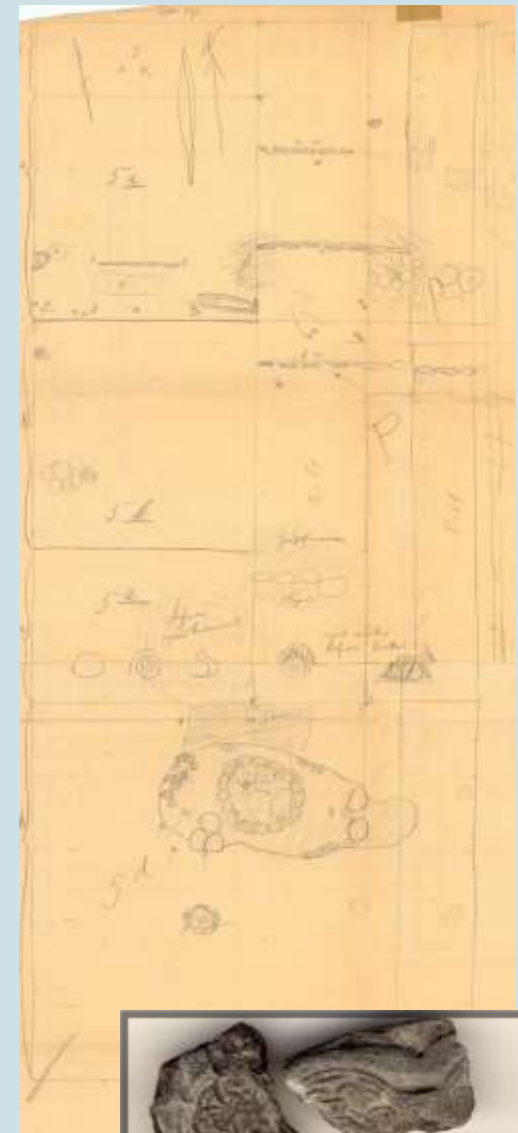
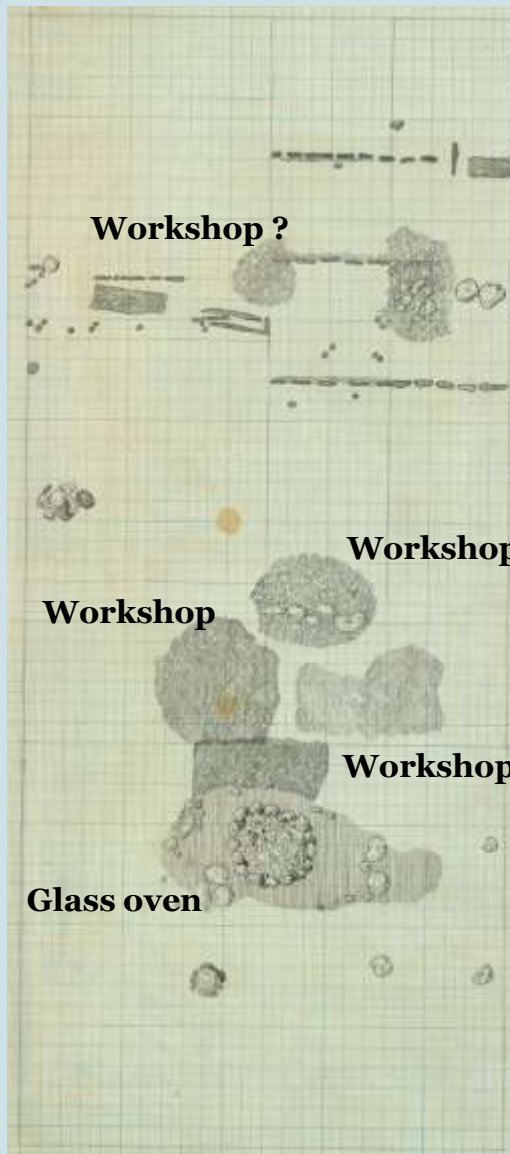
Workshop ?

Workshop

Workshop

Workshop

Glass oven



Relation between the excavation
from 1913 and the geophysician
survey from 2002



871-872 AD
Abbasids
al-Mu'tamid
Samarra



900-901 AD
Samanids
Isma'il ibn Ahmad
ash-Shâsh



938-939 AD
Samanids
Nasr ibn Ahmad
Samarqand



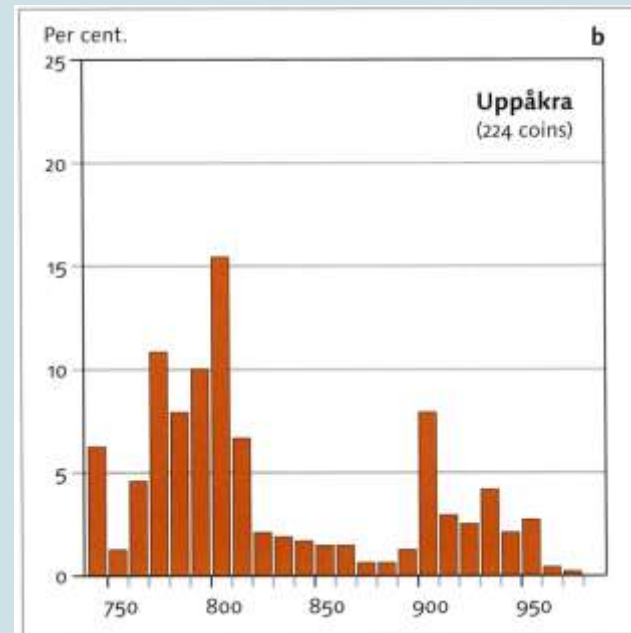
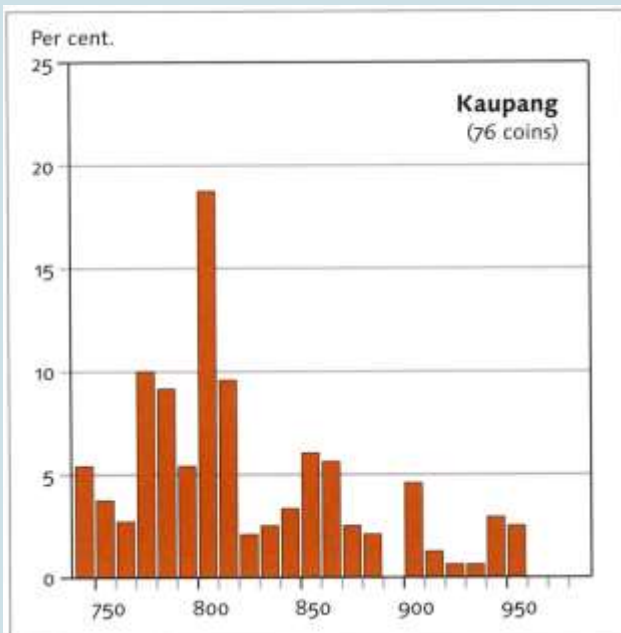
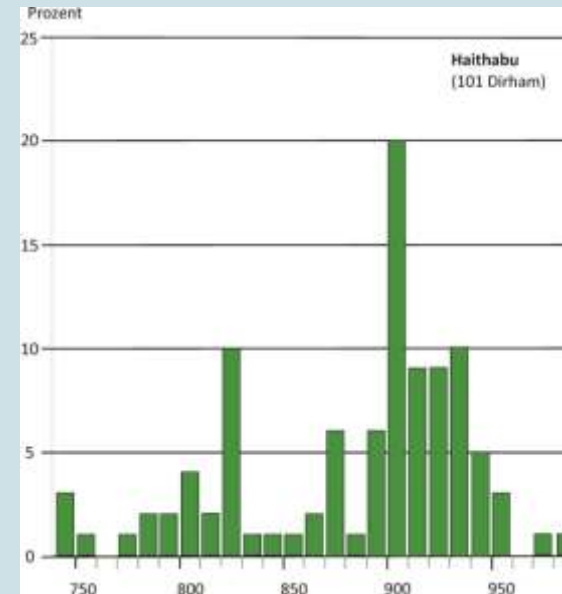
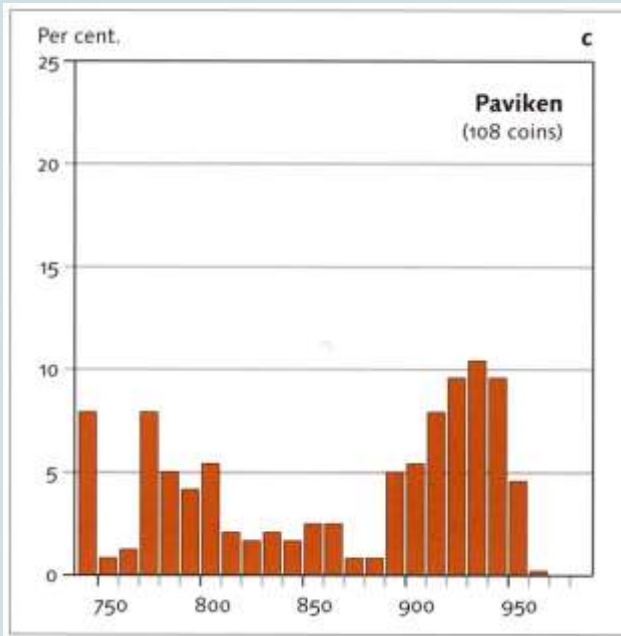
907-908 AD
Samanids
Ahmad ibn Isma'il
ash-Shâsh



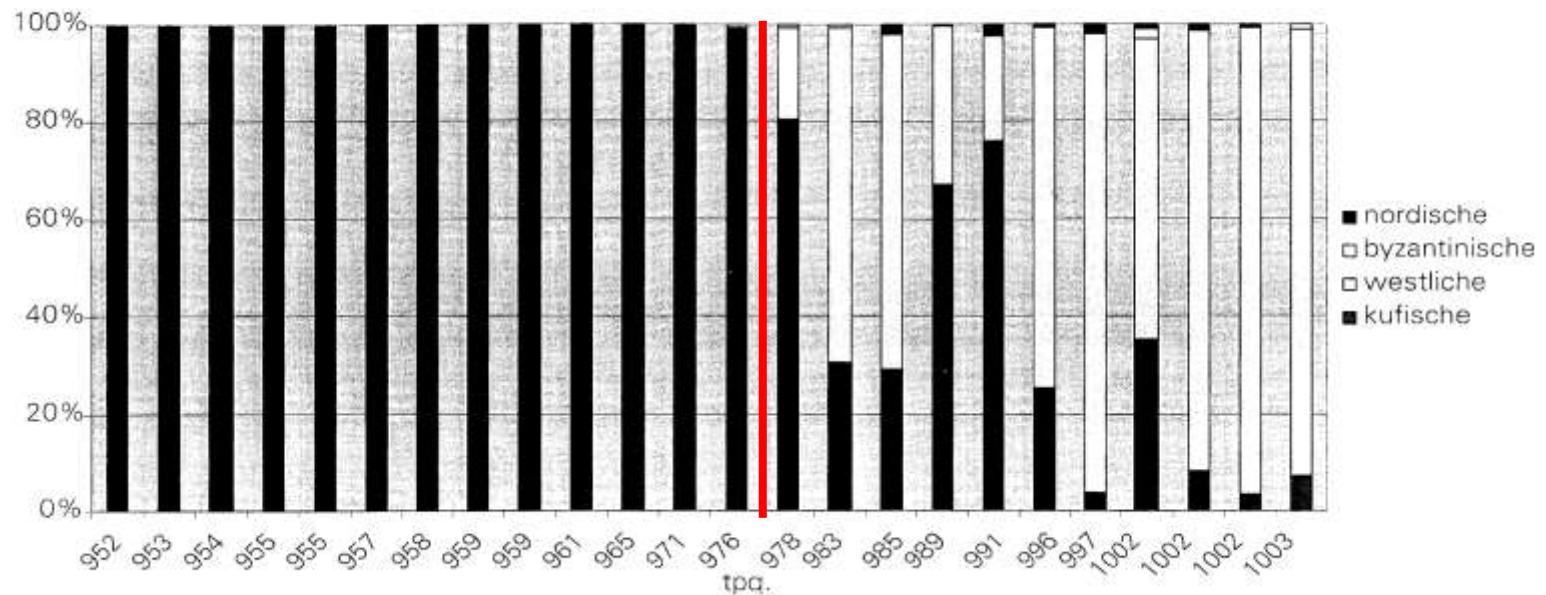
Volgabulgarian Imitation
Samanids, Isma'il ibn Ahmad
1. quarter 10. cent. AD

Hedeby, metaldetector prospections: high increase of Islamic dirhams

Islamic dirham from four Scandinavian find places



Zusammensetzung der gotländischen Funde 952-1003 AD

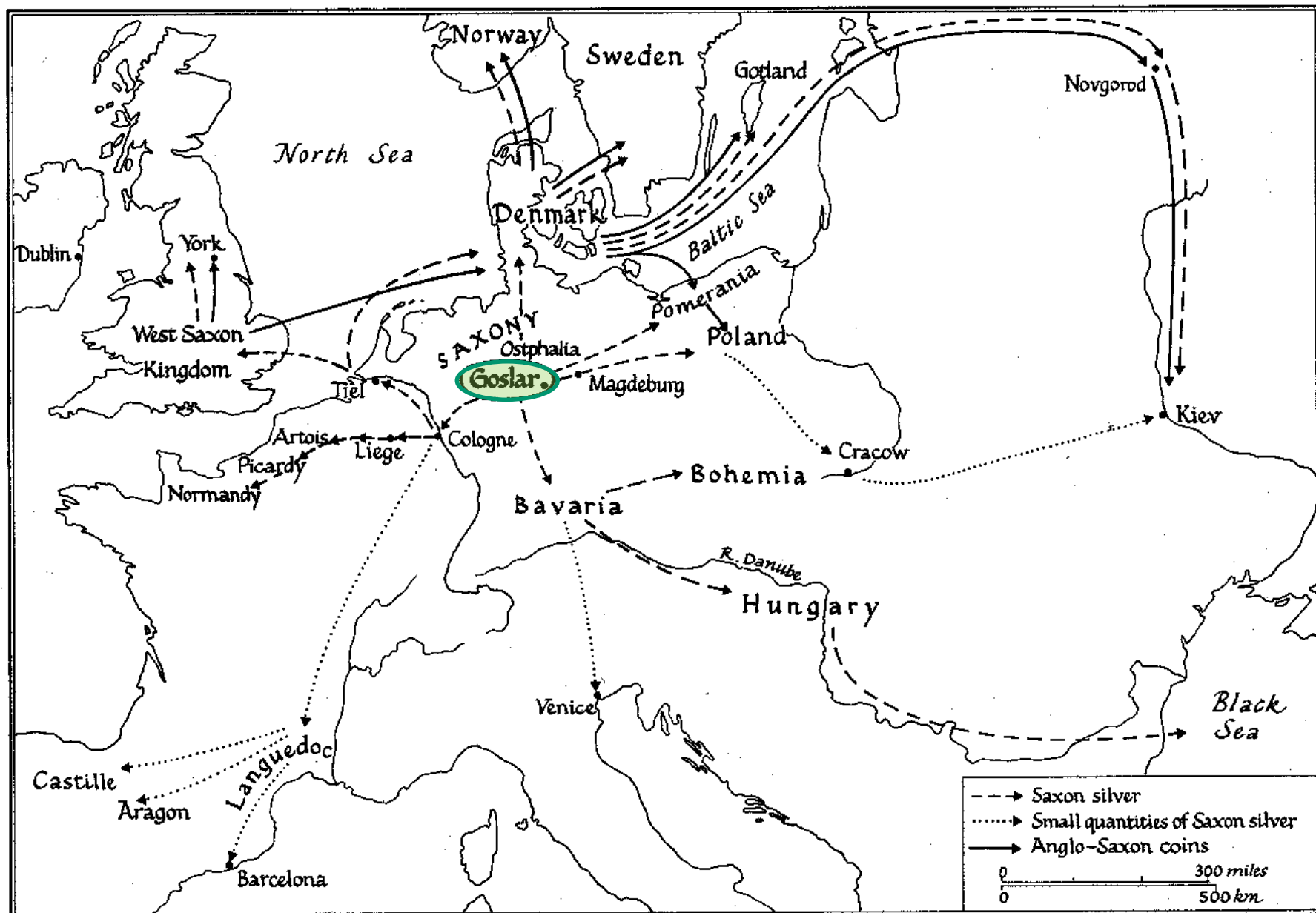


(Leimus 2007)

The disappearance of the Samanid dirham

Hoard from Ocksarve, Gotland,
more than 5 kg of silver,
deposited after 999 AD
(416 coins:
393 Ottonian deniers,
5 Islamic dirham)

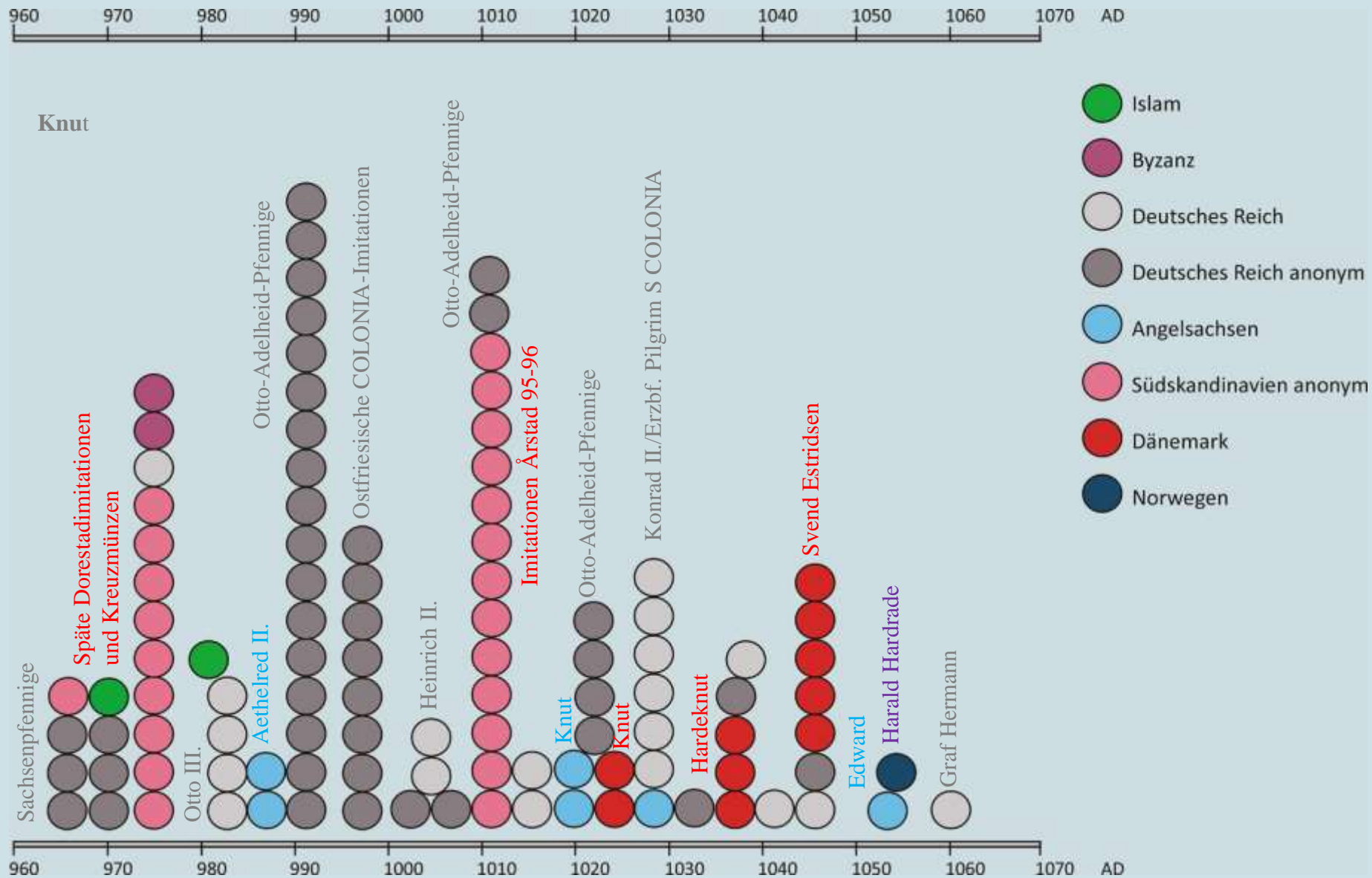




Map 9. Flow of silver from Goslar

Hedeby: Frisian copies of Cologne pennies (Häv. 29), unknown mint, end of 10th cent. AD





Hedeby: late coin finds from metaldetecting and the excavation 2005-10 (= 105 coins)



Unfinished casting of a sword scabbard sheath of brass, Ringerike style (990/1000-1050/75)

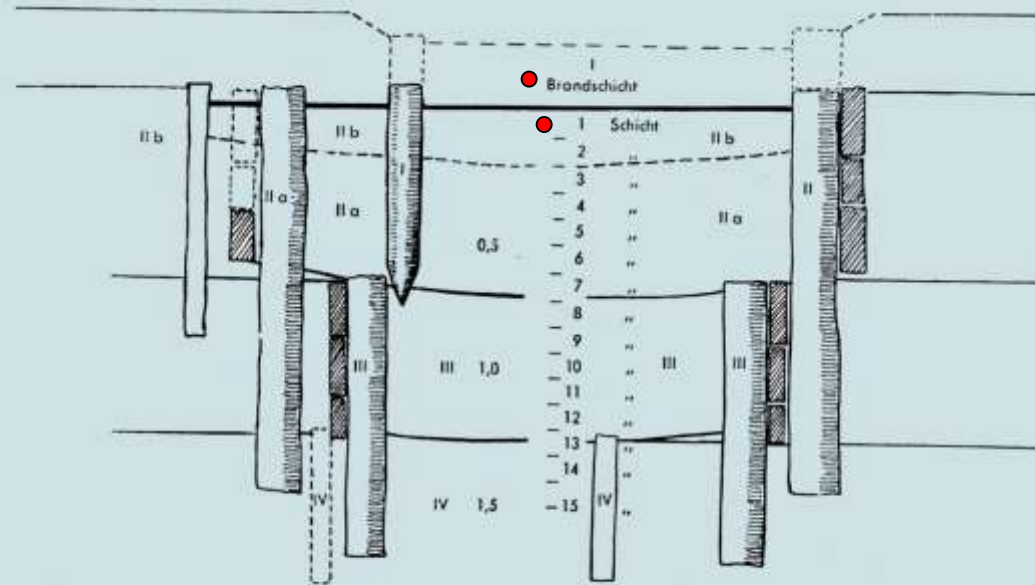
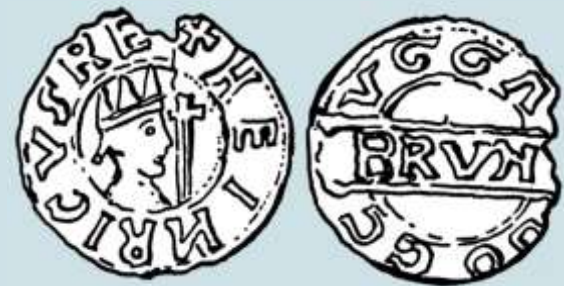
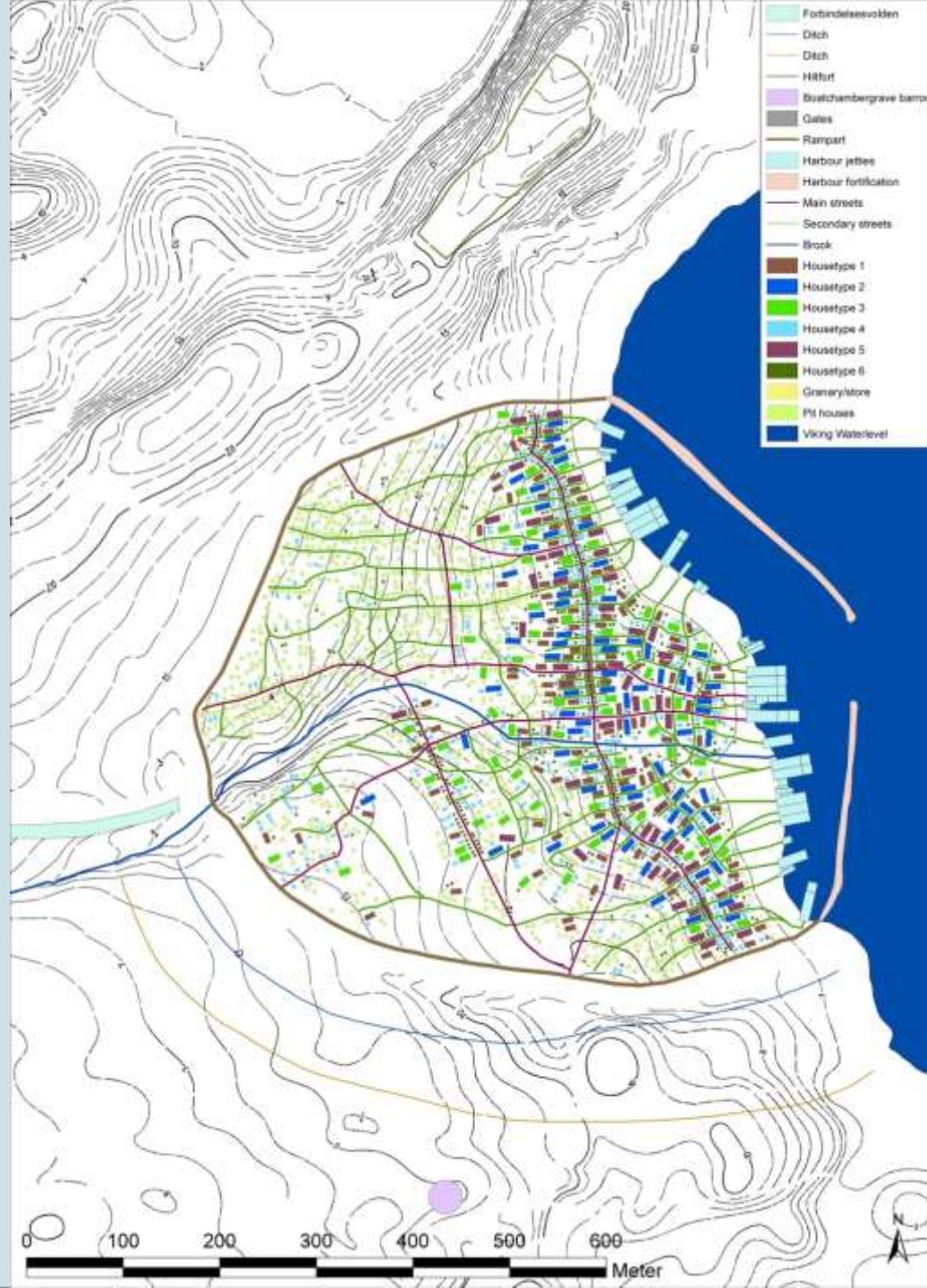


Abbildung 19. Schematischer Schnitt durch das Bachbett in den Flächen M und N 1 und 2.



Denar, Lower Lotharingia/Frisia, mint Dokkum Bruno III., c. 1050

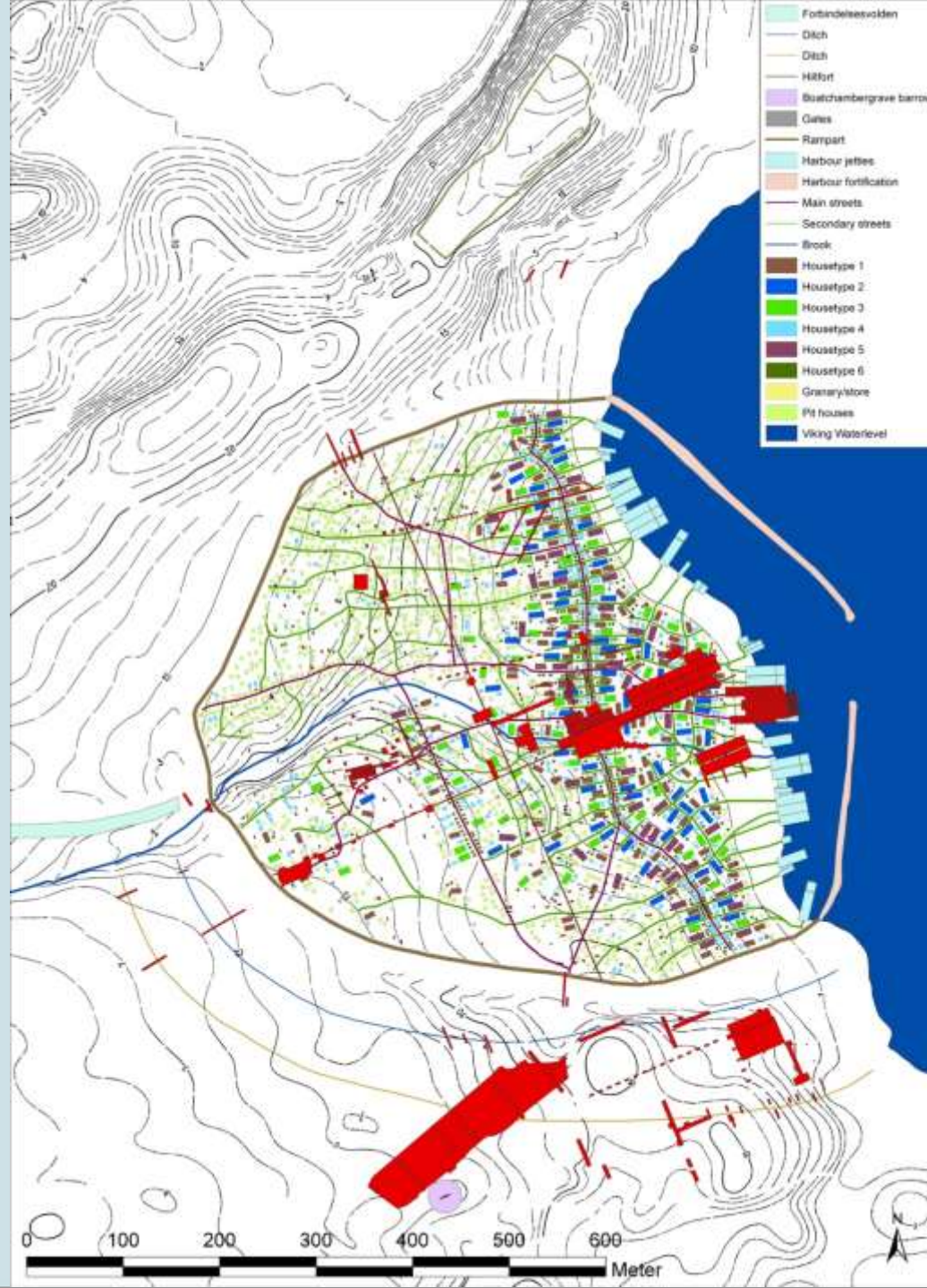
Late Viking period single finds from the old excavations in Hedeby



GIS-based model
of all excavated and
assumed settlement features

Hedeby's biography:

Revealing its development
with distinct phases
and different interferences
during its existence
from the 7th to the
middle of the 11th
century AD



GIS-based model
of all excavated and
assumed settlement features

Hedeby's biography:

Revealing its development
with distinct phases
and different interferences
during its existence
from the 7th to the
middle of the 11th
century AD

Forschungsprojekt HAITHABU



des Archäologischen Landesmuseums
in der Stiftung Schleswig-Holsteinische Landesmuseen
Schloß Gottorf, Schleswig