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VOLUME 1

EIGHTH TO TWELFTH CENTURIES AD

# The Archaeology of Medieval Europe

*Edited by James Graham-Campbell with Magdalena Valor*

Aarhus University Press | 

after the year 1000 because of the greater number of documentary sources and a more visible material culture than before. The four tendencies that Lopez saw as characterising European economic expansion during the course of the tenth century are:

- (1) The redistribution of the rural population so as to eliminate opposing excesses of overpopulation and depopulation, of saturation and waste;
- (2) A greater regard for the profession of merchant than in the past, thus being able to attract and conserve capital and energy;
- (3) The importance and utility of machines and techniques beginning to be recognised in practice, if not in theory; and
- (4) The extreme political fragmentation and the weakness of governments favouring local and private initiatives.

The new millennium had got off to a splendid start. The twelfth century closed with the fall of Byzantine Constantinople to the western states, in 1204, and the consolidation of a Mediterranean-wide Venetian trade-empire (see also pp 451-2). Within a generation, Marco Polo was able to look to new horizons.

#### PART 2: NORTHERN EUROPE by Søren M Sindbæk

If the history of Mediterranean trade during the period c800-1200 is one of decline and reluctant recovery that of Northern Europe is decidedly one of growth. One reason for this is the different points of departure. By c700, Europe's northern seas had never witnessed a system of exchange on the scale and complexity of that in the Mediterranean during Antiquity. During the following centuries, however, the development of commerce in the North corresponded ever closer to that of the Mediterranean, resulting in a twelfth-century economy no less advanced or extensive than that of Imperial Rome, but within an even wider geographical frame. Intriguingly, and hardly by accident, this process was set in motion at the very moment when the Late Antique economy ceased in the Mediterranean, in the closing decades of the seventh century. Throughout much of the period concerned here, trade remained a modest appendage to traditional forms of exchange. Its key historical importance was as a steady motor of social change and innovation.

#### The Emporia Network

Silver coins, sailing ships and towns, the bench-marks of early market exchange, appear in earnest on and around the northern seas of Europe, beyond the old Imperial frontier, during the seventh and eighth centuries. Being the means, vessels and locations of an exchange, which had grown beyond gift-exchange, plunder and tribute, to include

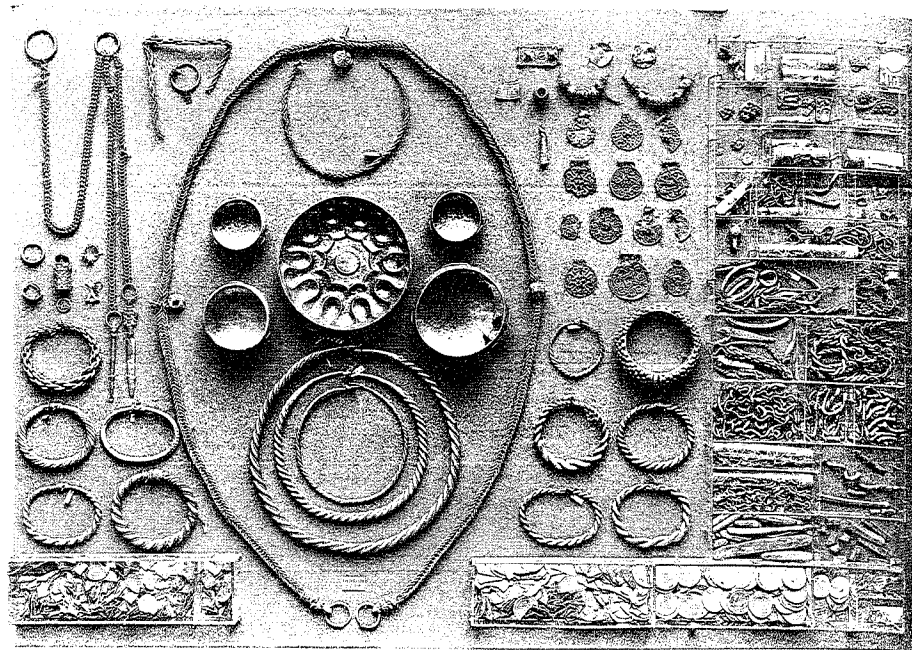
the focused, calculated and nominally impersonal relationships of trade, they signal the beginning of a commercial economy.

The ships of this age are still unknown to us, except for images on Gotlandic picture-stones; the coins, however, are familiar. The so-called *sceattas*, struck since the last quarter of the seventh century, were a light silver-denomination on the model of earlier Merovingian gold *tremisses*, but effectively the first coinage in post-Roman Northern Europe suited to the transactions of a rural small-holding economy (Abramson 2006, xi). The distribution of *sceattas* clusters along the Rhine, in England and around the North Sea coast into south-east Denmark, with sporadic finds in the rest of Scandinavia and the Baltic Sea region. This distribution is echoed by a number of Frankish products, such as quernstones, pitchers, glass vessels and textiles (Gabriel 1988). They mark the main arteries of a long-distance exchange that had attained a level of intensity and regularity not found elsewhere in Northern Europe at this period.

The hub of this network was Dorestad in the Frisian Rhine delta, also one of the most prolific mints of *sceattas* (van Es & Verwers 2002). From Dorestad merchants commuted to a small group of strategically located ports, including Quentovic in France, Hamwic and Lundenwic in England, Ribe in Denmark, and Birka in Sweden (see Chapter 4). These *wics* or 'emporia' were undefended landing-sites, mostly placed at political boundaries or topographical barriers, consisting of modestly-sized permanent settlements that swelled seasonally into large markets (Callmer 1994; Hodges 2006, with refs). They differ archaeologically from more local markets through finds that include items brought by foreigners for their personal use (e.g. domestic pottery), and by the regular practice of crafts that consumed imported raw materials, such as bead-making or bronze-casting.

Towards the end of the eighth century, Arabic silver coins (*dirhams*) appear first in Russia, then in the Baltic Sea region, along with mass-produced glass beads and other items (Callmer 1995; Noonan 1998). Staraya Ladoga (in north-west Russia) and possibly Truso (east Poland) became critical links to the Near Eastern economy through trade in fur and probably slaves. The Oriental beads arrived in sufficient quantities to oust the local production of glass beads at sites like Ribe within few years. The influx of silver was probably no less significant, and it also found its way through the Mediterranean (McCormick 2001, 369). In 793/4 it provided Charlemagne with the means to introduce a larger and heavier penny, weighing 1.7 grams. This Carolingian reform-coinage was soon matched by King Offa, in England, as also by the so-called 'Hedeby' coins in Denmark.

These new currencies, as well as an increasing body of trade legislation, point to the growing volume of exchange and to the ambition of rulers to control it (Verhulst 2002, 87f). The period saw intensified conflicts over attempts to monopolise the emporia, whose locations suggest that they had originally acted as neutral zones. In the early ninth century, Hedeby (Box 4.3) was founded at the base of Jutland as a Danish response to Frankish advance (Carnap-Bornheim & Hilbert 2007, with refs). While Dorestad became strangled between Carolingian and Viking ambitions, Hedeby took over its role as the hub for sea-trade in Northern Europe (Theuvs 2004). Bridging the Baltic and the North Sea, it opened routes for a new set of satellites, including Kaupang in southern Norway, Århus in Jutland, and Ralswiek in north-eastern Germany. In spite of this



**Fig 10.4** Hack-silver hoards are evidence of the bullion-based 'weight-money' exchange practised over large parts of North and Central Europe during the 10th-12th centuries; many, such as this hoard from Terslev (Denmark), contain a large number of coins, but their fragmentation, as well as their test-marks, demonstrate that they were not being exchanged at face-value, but for their content of silver (photo: National Museum, Copenhagen).

expansion, however, the nature of harbour facilities indicates that most ships still had a sufficiently shallow draught to be landed and loaded on the beach.

During the second half of the ninth century, many sites that had previously transmitted long-distance exchange in the North Sea area were either extinguished or substantially reduced. Traditionally, this has been linked to the disintegration of the Carolingian Empire and the escalation of Viking raids, but the evidence is more complex (Hall 2000). Interestingly, this is also the period when sources first indicate a shift in trade-routes from coastal hugging to blue-water sailing. This critically different maritime culture, which was re-introduced into the Mediterranean at the same period, would have rendered many smaller landing-sites useless (McCormick 2001, 494).

The most thriving sites of this period were those engaged with the eastern connections; these culminated during the period 930-70, when the influx of Arabic silver was at its peak. These connections are also reflected along the Dnepr and Volga river-routes, where Scandinavian finds occur regularly in the new trading-stations that were established there in the second half of the ninth century (Nosov 1993).

The most distinctive economic feature of this network was 'weight-money', a bullion-based exchange-system reflected in a large number of hoards containing hack-silver

(e.g. Fig 10.4), often including whole or fragmented coins, found across Scandinavia and East Europe (Brather 1996; Hårdh 1996). With no central authority to define the value of coins, 'weight-money' exchange was facilitated by Oriental types of scales and weights introduced in the late ninth century (Steuer et al 2002; Graham-Campbell & Williams 2007). Unlike the nominal coinage in a monetarised economy, bullion did not lose its value over time and could therefore be saved by hoarding. This explains the existence of so many Northern hoards as compared with Western Europe; however, silver was used as more than a means of storage. The great fragmentation present in many hoards shows that 'weight-money' was being used even for trivial transactions.

### The Urban Revival

Up until the tenth century, all ship-wrecks known from the Northern seas belong to all-purpose vessels, designed to carry a large crew and a modest cargo; however, a division then took place into slender warships and bulky transport-vessels (see Chapter 9). The latter were plainly dependent on organised protection and on the availability of proper landing facilities. Their appearance therefore marks an important threshold in both the volume of exchange and its organisation.

A similar tendency towards more proficient regulation is reflected in coinage. The influx of Arabic *dirhams* dried up in the late tenth century, probably together with the Central Asian mines which had supplied the silver for them. Within the 'weight-money' zone of Northern and Eastern Europe, they were initially replaced by coins from Western Europe, in particular north German issues – the *Sachsenpfennige* – struck in increasing numbers after the opening of the Rammelsberg silver mines, in the Harz mountains (Steuer 2005). More importantly, however, the system of exchange based on intrinsic value was receding. In England, King Edgar's reform in 973 established the first uniform, nominal coinage to circulate in all England. Domestic coins were increasingly minted in Norway and Denmark in the eleventh century and, from the 1070s, Denmark maintained a regulated, nominal currency (cf. Fig 10.5). The Slavic lands, on the other hand, mostly stuck to the bullion economy and only produced limited numbers of domestic coins as prestige issues (Spufford 1988; cf. also Kilger 2000).

This new structure of exchange was supported by an increase in new urban foundations, which appeared during the tenth century. The *burhs* in England, *Burgstädte* in Germany, and similar places throughout Northern Europe, show a different organization to that of the earlier emporia. They combined regional administrative centres and trading-places within one, usually fortified site. Some important centres changed locations in this process. From the mid-eleventh century, activities at Hedeby (Box 4.3) shifted to nearby Schleswig, which was able to receive ships with a deeper draught (Fig 9.8); in Russia, the port of Staraja Ladoga became just an appendix to the budding Novgorod, the new centre of power in a settled region.

Such centres were established in much greater numbers than the rare long-distance ports which had preceded them, and also in formerly non-urbanised areas. Towns like Dublin in Ireland, Cracow or Prague in Central Europe, and Lund or Trondheim in



**Fig 10.5** Four silver pennies struck in the later 11th century, from left to right, with obverse at top and reverse below: (1) Germany, Siegfried I, archbishop of Mainz (1060-84); (2) Low Countries, William of Pont, bishop of Utrecht (1054-76); (3) Anglo-Saxon England, Edward the Confessor (1042-66), minted at Lewes (Sussex); and (4) Denmark, Sven Estridsson (1047-76), minted at Roskilde (Zealand), with a runic inscription reading 'Suen reo tano[ru]m', for 'Sven rex danorum' (© Fitzwilliam Museum, Cambridge).

Scandinavia, all rose to importance during the tenth and eleventh centuries. Through centres such as these Norse settlers in the North Atlantic supplied Arctic exotica, such as walrus-ivory (Box 2.1), while Slavs in Bohemia or Moravia began to receive amber from the Baltic (Roesdahl 2003; Krumphanzlová 1992).

The use of regulated nominal coinage consolidated throughout most of Europe during the twelfth century, as witnessed by the use of increasingly debased coins. The monopoly of coins was certainly of great value to lords, who could order recurring substitutions at exchange rates in their favour. It was less conducive to international trade, which continued in consequence to rely heavily on bullion silver. By accident, it was also to terminate the use of coins in the regions where exchange still relied on metal value. In Novgorod, fewer and fewer coins were available after the eleventh century, when they were replaced by an exchange almost entirely based on furs and other payments in kind (Martin 1986; Rybina 1999).

In 1143, Lübeck was founded in the south-western corner of the Baltic as part of the German colonisation east of the Elbe, the *Ostsiedlung*. Complemented by some other new foundations, it was to eclipse Schleswig as the main port of the Baltic Sea in the early thirteenth century. Along with Lübeck, Visby (Gotland) and Bergen (western Norway), all grew into ports of prime importance. About the same time, the cog developed and gradually displaced the Nordic clinker-built ships as the principal trading-vessels of the Northern seas (see Chapter 9), although perhaps not, as once claimed, for the simple reason of scale: the huge thirteenth-century wreck from Bryggen, in Bergen,

shows that a late Nordic clinker-built vessel could easily compete with the capacity of contemporary cogs (Berggren et al 2002). Rather, the new ships, towns and currencies were the furnishings of a new set of actors and a new network, one that was to develop into the Hanseatic League (see Vol 2).

### Places, Networks and Organisation

Early medieval trade was as much an instance of communication as one of economy. 'Trade-routes' were journeys taken on a regular basis, defined by the knowledge and experience of travellers. Details in the development and arrangement of connections were decisive for the robustness of systems and for the possibility of their control, and thus for the historical development of exchange and communication.

In the emporia network, long-distance exchange mostly took place in bulk between specific localities, situated to act as spatial and temporal buffers between traffics. Local markets communicated with the emporia, but not with the long-distance traffic between them. While this network was sometimes remarkably effective, it was also extremely vulnerable. Successful emporia could be deserted within a few years if connections failed or reconfigured (Sindbæk 2007).

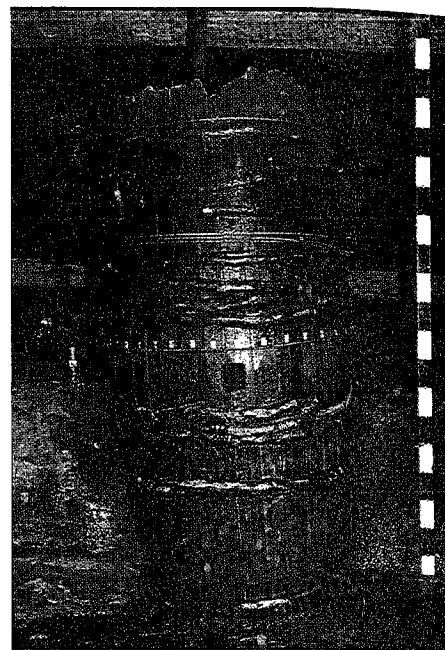
The urban network established from the tenth century onwards was far more robust, but entailed a different problem. The eighth-century network of emporia had been socially a small world, in which a merchant from Dorestad was probably personally acquainted with his partner in Birka. The need for formal institutions and enforcement was therefore less pronounced than later.

By contrast, the mature urban network of the High Middle Ages, which linked large numbers of towns with crowds of strangers, required an increasingly elaborate body of regulation, institutional sanction and coercive force to buttress peaceful and lawful cooperation. Even during the Carolingian period, the elite presided over markets and collected tolls. Merchants, for their part, formed partnerships, companies and guilds. Yet, the formation of towns allowed both for a more efficient monopoly of coins and markets, and for better possibilities of commercial organisation.

The shift from emporia to towns also held implications for local exchange. The few international emporia of the Carolingian period were a clearly distinct orbit from the regional distribution that took place in fairs and markets. In Western Europe these have a documented, or assumed, connection to monasteries or other great estates, as in the case of Flixborough, in northern England (Loveluck 1998). Their equivalents in Scandinavia appear similarly associated with lordly residences or 'central-places', such as the complex at Uppåkra, in southern Sweden (Näsman 2000; Pestell & Ulmschneider 2003). As towns were established from the tenth century onwards, local exchange became assigned to them, while other types of market gradually lost importance or were prohibited (Ulriksen 1994; Naylor 2004).

Archaeologically, the search for local markets is often directed towards the metal-rich 'productive sites', discovered in recent years by metal-detectorists. The social character of local markets remains little known, but it is likely that many were held in asso-

**Fig 10.6** This barrel of silver fir, which grew in the upper reaches of the Rhine, probably contained wine before it was reused as a well in Hedeby. It is almost 2m long and testifies to a scale of commerce well beyond the exchange of occasional luxury items (photo: Stiftung Schleswig-Holsteinische Landesmuseen Schloß Gottorf, Schleswig).



ciation with periodical general-assemblies. Some interesting cultural variations stand out: in England, 'productive sites' reveal a remarkable level of coin circulation (and loss), during the eighth and ninth centuries, whereas in Scandinavia (by contrast) exchange appears to have been conducted as barter, except in emporia.

It would be false to think that local exchange was organised along the same lines in every region. Within the Seine area, from the Carolingian period, exchange was centred on the annual wine-market at St Denis, creating a regular, cyclical pattern. In the Rhine area, by contrast, markets were continuously established on the occasion of the great assemblies held, in changing towns, by the itinerant Carolingian court. In consequence, no *locus* or similar event to St Denis existed there (McCormick 2001, 647f).

#### Trade-Goods

Ceramics are less enlightening for the study of early medieval trade in Northern Europe than in the Mediterranean area (see Box 10.1). Amphorae were rarely used, as wine and other liquids were transported in barrels (Fig 10.6), and few fine-wares were exchanged for their own merit. Only a few wares had a regular, supra-regional distribution (cf. Lüdtke & Schietzel 2001). The Rhenish Badorf and later Pingsdorf wares (see pp 225-7), produced in the Vorgebirge, south of Cologne, were used throughout the Rhine area and are regularly found in ports in the North Sea region. An exceptional Frankish product, the eighth/ninth-century Tating-ware pitchers, black burnished and decorated with tin-foil applications (see p 226 & Fig 7.13), occurs even further afield, having been found in Russia and at Borg, in Lofoten (northern Norway); it may either have been an admired (Christian?) souvenir or traded as a fine-ware.



Stone objects provide some of the best archaeological evidence for long-distance trade in Northern Europe: Viking period steatite vessels found on the shore at Hals Barre, Jutland, and a Mayen quernstone from the 10th-century fortress at Trelleborg, Denmark (photo: National Museum, Copenhagen).

**Fig 10.7**

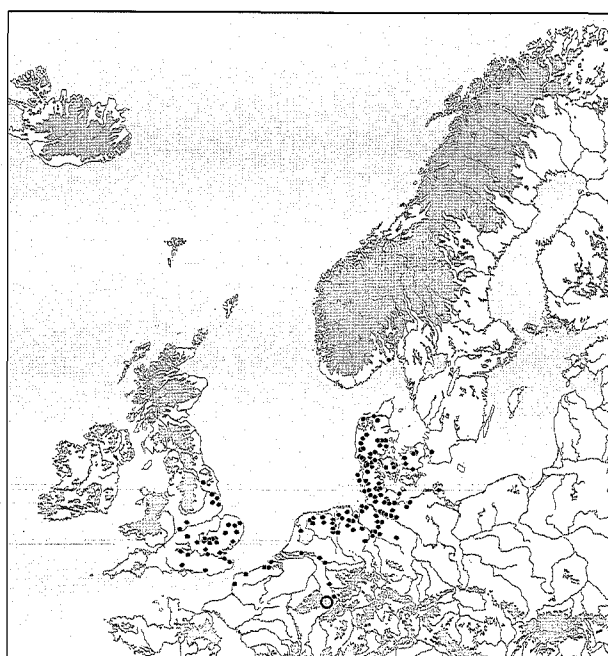
Apart from this, pottery was mostly produced for local consumption and is rarely found outside its region of production. Only ports regularly present pottery of a mixed origin, undoubtedly used by foreigners residing there. Ceramics of more remote derivation are exceptional; among more than 100,000 sherds from Hedeby, there is only one piece of a Byzantine amphora and a few fragments of Central Asian mercury-flagons to point to contacts beyond Northern Europe (Helm 1997; Steuer 2002, 160).

In contrast to ceramics, many things that did hold significance in exchange are elusive as archaeological objects. In general, for a thing to become a regular object of trade or exchange requires that there exists an imbalance between availability and demand, and that a way can be found of overcoming this imbalance. In medieval trade, the last was often the decisive moment. For objects like furs, spices, or semi-precious stones, which were obtained from very distant sources, the limited access (and hence rarity) probably even raised the demand for them as objects of gift-exchange.

For some items the incentive for exchange was created by geographically restricted occurrence. This is true for stone tools and utensils (Fig 10.7 & Box 10.2), minerals including salt, indispensable as a foodstuff and preservative (see pp 232-4), or for iron and other metals, which were extracted only in certain regions (Magnusson 1995). In other cases, it was the production techniques that had limited availability. The secrets of making silk-cloth, swords or glass vessels, and other applied arts, were carefully guarded

Northern Europe comprises a broad band of fertile lowland set between two mineral-rich mountain ranges – in Central Europe and along the Atlantic rim. From early on, this economic situation created important incentives for trade and exchange. Stone objects are the most durable form of archaeological evidence from the resulting relationships. Moreover, they can often be traced by petrological analysis to a specific place of origin.

Quernstones were utilitarian objects of essential value for an agrarian economy (Fig 10.7). One of the finest materials for querns in Europe, the porous basalt found in the Mayen region, south of Cologne, became a major export during the Carolingian period (Parkhouse 1997). Its distribution along the Rhine and the coastlands of the North Sea emphasises the same 'Frisian' trade-zone as the *sceattas* (Fig 1). The heavy querns were rarely transported long distances overland and are found in inland areas only along major, navigable rivers. Their virtual absence in the Baltic



**Fig 1**

Quernstones of Mayen basalt found their way into the orbit of North Sea emporia during the 8th–10th centuries; their distribution traces an outline of the main coastal sailing routes of the Carolingian period, in particular (data from Parkhouse 1997; Sindbæk 2005; and personal research).

Sea area is an indication that Carolingian trade was transhipped across the foot of Jutland, rather than being sailed on the risky route around the north of the peninsula.

Another characteristic material for querns was garnet-muscovite slate from Hyllestad, in western Norway. Hyllestad querns were exported from the tenth century over large parts of Northern Europe. The combination of soft slate and hard garnets gave an excellent wearing surface, which was appreciated into the twentieth century. In the Baltic Sea area, querns were often made of sandstone, which did not, however, become objects of long-distance export (Carelli & Kresten 1997).

Cooking vessels carved out of the easily workable but robust and heat-resistant steatite were in use since the Iron Age in many parts of Norway and in the Shetlands, where the stone occurs naturally. From the early decades of the ninth century, however, they were also traded on a significant scale into Denmark and southern Sweden,

where no natural sources exist (Fig 10.7). When Norse colonists settled in the British and North Atlantic Islands in the ninth–tenth centuries, steatite bowls were also brought into these regions (Fig 2). Outside the area of Scandinavian settlement they are found only in ports, such as Ralswiek or Wolin on the South Baltic coast, presumably brought by Scandinavian sailors. The close association of steatite vessels with Scandinavians, together with the considerable effort put into transporting them over long distances, suggests that they had a significance related to cultural identity (Forster & Bond 2004). Unfortunately, no technique has yet been developed that can trace products to individual quarries.

Hones were another stone product traded in quantity. From the eighth century onwards, good quality schist hones from sources in Central Europe, the British Isles and Scandinavia increasingly replaced local stones in the lowland regions. Petro-

logical studies have identified the source of several products (e.g. Mitchell et al 1984; Resi 1990). The most characteristic type is the fine grained, and almost white, schist from Eidsborg in Telemark (southern Norway), widely distributed since the tenth century at latest (Myrvoll 1985).

A prominent example of stone-trade in the Slavic world is the spindle-whorls made of scarlet slate from the Ovruc region, north-west of Kiev (Gabriel 1988). Unlike querns, the whorls did not pose restrictions on land transport and are found across the entire Slavic world from the Volga to the Elbe, and occasionally in Scandinavia.

Even building stones were exchanged over long distances, in particular exotic stones for ornamental details: examples include the well-known 'black stones' discussed in letters between Charlemagne and King Offa (see Box 15.3).

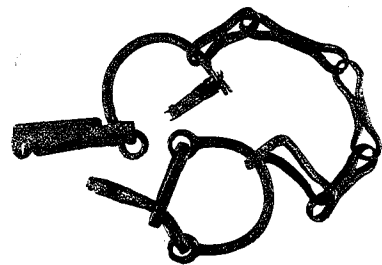
By Søren M Sindbæk



**Fig 2**

Steatite vessels were traded on a significant scale during the 9th–11th centuries into Denmark and the newly-founded Norse settlements in the North Atlantic islands, but were not adopted among other groups; the dotted line encloses the area of natural occurrence (data from Resi 1979; Foster & Bond 2004, with refs; Sindbæk 2005; and personal research).

**Fig 10.8** Iron leg-shackles are rare material evidence of an important commodity in early medieval Northern Europe: slaves; this 11th-century example is from Brest, Mecklenburg, NE Germany (photo: Landesmuseum in Schwerin).



by the workshops and the powers that possessed them. The high value of these things relative to their weight would merit transport even in small-scale cargoes, and all were exchanged throughout the Middle Ages.

Debates about the complexity of medieval economics often focus on things that were exchanged as a way of organizing production. Agrarian surplus was traded early in the form of high-value, labour-intensive products like textiles. But when did basic products like grain or wine become commodities? Both were certainly redistributed locally and were sometimes moved over long distances between the scattered holdings of Carolingian monasteries and estates (McCormick 2001, 698f). But evidence is still inconclusive as to whether an extensive grain-trade existed before the establishment of urban centres in the tenth century. The evolution of bulk cargo in particular raises discussions about a possible 'commercial revolution'.

One low-value staple product the history of which, as a commodity, is now being studied in some detail is fish (see Box 6.3). The evidence of fish-bone from archaeological sites in England shows that marine fish rapidly became available inland in the decades around 1000. The 'fish-event' may, however, be connected specifically to the introduction of preservation by salting, rather than showing a general development in the organisation of exchange.

A related class of products was manufactured goods like combs, textiles, shoes, iron objects or pottery. The raw-materials for these, and the skills for producing them, could be acquired virtually anywhere, whence their transformation into manufactured goods was motivated only as a division of labour. This signals an important step for local trade. Comb-making is widely evidenced as a pre-urban specialisation practised in local markets from the Carolingian period (Ashby 2006). Textiles were produced mostly within households, but according to standardized norms, which established certain fabrics as commodities (Jørgensen 1992; and see Chapter 7).

One final commodity of key importance in medieval trade was slaves. Slaves might be considered a higher form of agrarian surplus, yet the uncommon agency of the product, and the complexities introduced by Christian ethics, favoured procurement from distant sources, and hence long-distance trade. Although possibly the most significant European export of the early medieval period, hinted at in many written sources, the slave-trade is virtually invisible in the archaeological record (cf. Fig 10.8). The history of this aspect of early medieval European trade may yet be uncovered by future genetic studies.

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