## Eastern contacts based on the coin finds

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Abstract. An import of mainly Islamic dirhams to Sweden began c. 800 and continued during the 9th and 10th centuries, but greatly reduced after the 950s. Coins from western Europe, mainly Germany and England, occur in great numbers from c. 990. On Gotland the import continued as late as c. 1140. Trading must have been the main reason behind the import. The vast majority of the imported Byzantine coins belong to the period c. 990-1010, with the exception of 112 coins from the mid-11th century in the Ocksarve hoard on Gotland. Polish and Russian coins were struck in small numbers in the 11th century and few coins have been found in Sweden. Thus, coins show intense contacts with the east up to the 950s, but other source materials have to be used to evaluate contacts in later periods.

More than 675,000 coins have been found in Sweden. The Viking-Age is the most prolific period with more than 247,500 coins from more than 2,700 finds. In this period Sweden was part of a very large area in northern Europe which imported coins (fig. 1). All in all some 850,000 coins from more than 7,000 finds have been

recovered in this vast region. Three areas, Sweden, Russia and the West Slav region (present-day Poland and former East Germany), each accounts for nearly a third of the total (tab. 1). A well-preserved hoard found in Eskilstuna in central Sweden in 1977 (fig. 2) is typical of the period. It contains 414 coins deposited in the mid-1030s (Jonsson 1981). The coins lay in a leather purse which was stored in a lead container. Besides coins, mainly from Germany and England, there were silver jewelry and hack-silver.

In Sweden, the island of Gotland is by far the wealthiest province when coin hoards from the Viking Age is concerned. Gotland accounts for two-thirds of the total figures for Sweden, 168,600. Skåne in the very south is second largest province with 25,100 coins and coins have been found in every province of Sweden (fig. 3). The coins were probably mainly used as a means of payment based on the weight of the coins as they were all struck more or less in pure silver (c. 94%). In other words, for all practical purposes, they were pieces of metal and not used as coins with a nominal value.

This meant that foreign coins could stay in circulation for a very long period of time as the circulation of silver (coins) was not regulated

The first hoards were deposited about 800 AD. The import was on a minute scale before the 830s, when the first hoards with several hundred coins appear. The peak in the mid-9th century is very much the result of the huge Spillings hoard (14,300 coins), while in the late 9th century the import drops to very low figures. The renewed increase in the 10th century gets of to a slow start but rises dramatically in the 930s and 940s. The 960s-980s again show a severe drop followed but a quantum leap in the 990s. A reduced import c. 1005-1015 is largely hidden in the graph, which shows a high level up to the early 1050s. A low level is evident c. 1055–1075 and although the figures increase again c. 1075-1095, the figures never come near the earlier levels. In the first half of the 12th century the import is on a low level and finally ceases c. 1140. The figures show vividly that the import was far from even from one period to another. Increases and decreases normally lasted less than a generation and suggest that the import was continuously affected by events some of which we can explain while others are still debated (fig. 4).

In the early phase, c. 800–990 AD, the import came nearly exclusively from the east and started with Sasanian, Islamic (very dominant), and Khazar coins. In the mid and late part of the period there were Islamic (very dominant), Volgabulgar, and Byzantine coins. In comparison, the number of imported coins from the Carolingian Empire and England in this phase was very limited, less than a hundred coins have been found (Coupland 1991; Blackburn & Jonsson 1982) and many of them have not been found in hoards but in graves.

In the late phase, c. 990 to the mid-12th century, the import is totally dominated by import from western Europe were German and English coins make up for about 95% of the coins, while the remainder comes from a large number of countries, including some domestic coins.

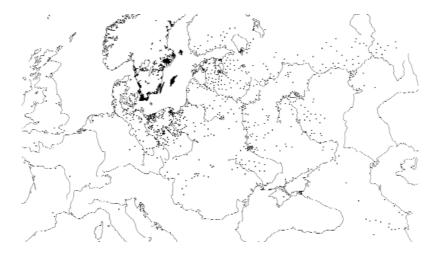


Fig. 1. Coin importing areas in northern Europe in the early Viking Age (Balint 1981, fig. 1; redrawn in Jansson 1988, fig. 2), In the late Viking Age the same areas are involved except for the far east and the south-east.

Area	No. of coins	No. of finds
Sweden	247.500	2.710
Norway	10.750	268
Iceland	365	7
Faeroe Is	99	2
Shetlands	9	4
Denmark	41.556	676
Finland	8.422	225
West Slav area	271.136	1.300
Estonia	24.599	134
Latvia	5.153	272
Lithuania	409	16
Russia	242.423	1.400
Total	852.421	7.014

Tab. 1. Number of Viking-Age coins found in northern Europe.

The reasons for the import have been discussed intensely and have focused on raiding and trading (Hatz 1974, 143–150; Östergren 1989, 25–31). The evidence strongly favors trading while raiding had played a fairly modest role. Evidences for trading are the composition of the hoards, with a great mixture of coins, the development of the import, which only superficially coincide with known raids. Much attention has earlier been given to the English coins although the German coins are more than twice as common. At times, though, part of the import could be connected to special events.

## The eastern import

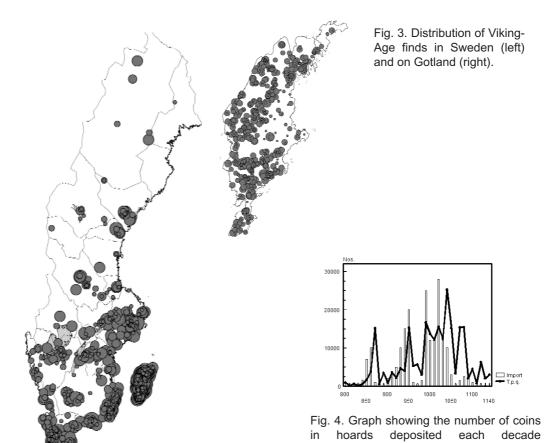
In the Caliphate a monetary reform was undertaken during caliph Abd al-Malik 77/79 A.H. (696/7 and 698/9 AD). In Sweden, some 83,800 Islamic dirhams have been found. They are mainly struck by the caliphs of the Umayyad and Abbasid dynasties, and princes of the Samanid dynasty

(fig. 5). The dirhams were also extensively copied by the Volgabulgars and about 2,500 of them occur in Swedish finds (fig. 6).

In the 950s the import shows an overall decrease in Northern Europe and e.g. reached a low level on Gotland while it dropped far less on the Swedish mainland. The import to Russia continued to be strong in the 960-980s (Noonan 1989, 300). The reasons for the decrease and finally the complete halt in the early 1010s has been much discussed. Depleted mines in the Caliphate, coins with lower silver content, lower coin production, changing trade routes, political events etc. have respectively or in combination been regarded as possible reasons for the decrease (Noonan 1988). The different pattern in dirham import c. 950-990 between Gotland and Russia is important when discussing the reasons, because exactly the same pattern can be seen in the coin import c. 1055-1075 (see below). Several analyses have shown that early dirhams had been struck with silver content of c. 94%, i.e. "pure" silver (e.g. Arrhenius et al. 1973; McKerrell & Stevenson 1972). Analyses have also shown that the silver content started to drop in the 940s (Noonan 1987, 245). Silver content below c. 90% can probably be seen as a crucial point. Although it must have been very difficult at the time to measure the exact silver content, a visual inspection of later dirhams reveals changes like different colour, a tendency for the planchets to crack along the edges etc. Judging from the pattern of the hoards it is obvious that these signs made Gotlandic traders reluctant to accept the coins, while traders on the Swedish mainland and in Russia did not react to the changes. The fundamental effect of a lower silver content is that it was no longer possi-



Fig. 2. Hoard from Thuleparken, Eskilstuna, Södermanland, Sweden 1977. T.p.q. 1035.



800-1140s (line) and estimated time of im-

port for the same coins (columns).



Fig. 5. Caliphate. Samanid. Ismail b. Ahmad. al-Shash 292 e.H. (904/5 AD).







Fig. 6. Volgabulgars. Talib b. Ahmad. Suwar 338 e.H. (949/59 AD).





Fig. 7. Uqailid. Husam al-Dawla. Mawsil 388 e.H. (998 AD).



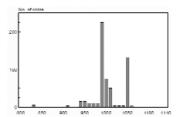






Fig. 9. Byzantine Empire. Basil II 977-1025. Constantinople. Miliaresion.





Fig. 10. Constantine IX 1042-1054. Constantinople. Miliaresion.





Fig. 11. Poland. Boleslaw Chrobry 992-1025.





Fig. 12. Russia. Jaroslav 1015-1018. Novgorod? Srebrenik.



Fig. 13. Finds with coins of Jaroslav, probably struck at Novgorod. X marks the site of Novgorod.

ble to simply weigh the coins in order to determine the silver weight (i.e. the value), as opposed to earlier with a silver content of c. 94%. This no doubt is the probable cause why the import decreased and came to a halt when the silver content continued to drop.

In the 990s, at the same time as the import from western Europe began to surge, there was a shortlived renewal of import from the east. This time the import mainly consisted of Islamic coins struck by some dynasties in the western parts of Asia, Ugaylids (fig. 7), Hamdanids etc. as well as Byzantine coins. Very small numbers of Byzantine coins are found in hoards from the middle of the 10th century and a small increase is seen from c. 970. However, the majority of the import is confined to the period c. 990–1010 (fig. 8). Of a total of c. 600 Byzantine coins found in Sweden, c. 273 were stuck during the reign of Basil II in 977–1025 (fig. 9) (Hammarberg et al. 1989, 34-40 with later additions). Nearly all of the later Byzantine coins come from a single hoard, Ocksarve on Gotland. It included four coins of Romanus III 1028-1034 and 108 coins of Constantine IX 1042-1054 (fig. 10). They must have been the property of a Varangian serving in Constantinople, that is one of the few cases were a literary source can be matched by hoard evidence. The coins are contemporary with the perhaps most famous of the leaders of the Varangian guard, Harald Hårdråde. Harald had acquired great fortunes during campaigns in the service of the Byzantine emperor. On his return to Norway half of his fortune was substituted for a joint kingship in Norway. To what extent his fortune consisted of coins is uncertain, but no finds in Norway can be associated with coins that he could have acquired as a Varangian.

Besides the Byzantine silver coins, three gold coins and 14 copper coins are known. Neither have been found mixed with silver coins and they are nearly always stray finds. Five copper coins struck by Theophilus 829–842 AD are otherwise the most remarkable group.

The commencement of the striking of coinage in Poland has been lively discussed, but it is now evident that it started c. 995 during the reign of Boleslaw Chrobry 992–1025 (fig. 11) (Suchodolski 2000). There are a total of about 20 coins from c. 10 finds. The finds show a high concentration to Gotland, but one coin has been found as far north as at one of the Lappish offering finds. As a comparison probably about 200 Polish coins from some 60 finds have been made in Poland.

Russian coins are far more rare in Swedish finds. The gold coinage (zlatniki), believed to have commenced after Russia was christened in 988 is extremely rare (11 specimens known) and not represented in Sweden. The silver coinage was struck at Kiev, and probably also at Novgorod. The former is known from some 334 specimens (nearly all found in Russia) of which only one has been found in Sweden (Sotnikova & Spasski 1982, 48–52). Eight specimens are known of a type of Yaroslav (Sotnikova & Spasski 1982, nos. 222-224 with later additions) which was probably struck when he ruled in Novgorod in 1015–1018 (fig. 12). The vast majority of them have been found outside of Russia, of which two have been found in Sweden (both without a known find provenance – the find spots are shown at the site of the museum where they are housed) (fig. 13).

There was a sharp decrease in the import c. 1055–1075 to Gotland, while on the



Fig. 14. The proportion of Frisian coins in Swedish hoards with t.p.q. 1050–1070.



Fig. 15. Distribution map of the German coins in the Ruci hoard. t.p.q. 1081. The concentration to Frisia is more than evident.

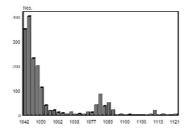


Fig. 16. The number of coins of each English type struck c. 1042–1123 and found in Sweden.



Fig. 17. Burge hoard, t.p.q. 1143.

Swedish mainland the import continued. The reason for these events are no doubt, as a hundred years earlier (see above), connected with a drop in the silver content of the coins. There is a general trend towards a reduction in Germany (Zwicker 1991, 80-93). Although it is evident that more analysis would be needed, there are indications that Frisia played an active role. Here the weight of the locally struck pfennigs had been reduced already in the late 10th century. When count Bruno III 1038-1057 came to power, it was no longer possible to reduce the weight any further. Instead the silver content was reduced by replacing silver with copper.

This change was evidently detected by the Gotlandic traders and they stopped to import coins more or less altogether, leaving just a very low level of import. The Frisian element in the hoards can be used as a mirror of the amount of debased coins in the hoards (fig. 14). On Gotland there are only two hoards, both small, where the Frisian element constitutes more than 14% of the number of coins in a hoard. The situation is similar on Öland. On the Swedish mainland the hoards usually contain more than 14% Frisian coins. In contrast the Frisian element is dominant in Russian hoards and corresponds with an increased import in the period c. 1050-1090 (Potin 1990, 270-271). The Ruci hoard is an extreme example of a hoard where Frisian coins account for a very high proportion of the coins in the hoard (fig. 15).

Does this mean that trading came to a halt on Gotland and Öland in this period? Here the trading centres of Fröjel on Gotland and Köpingsvik on Öland provide important evidence. At Fröjel the archaeological excavations show that the site expanded

rapidly in the 11th century. Based on the dating of the coins found, the expansion took place in the second half of the 11th century. At Köpingsvik the settlement was probably founded c. 1050 and then continued into the 12th century. Thus, it is clear that trading continued, but that coins were no longer an important element in the trade.

Based on the number of English coins found in Sweden from the period c. 1042–1128 this development can be shown in detail (fig. 16). The figures also show that following the decline c. 1055–1075, the import was resumed. The reason is probably that the manufacture of debased Frisian coinage had come to an end and it had constituted the major component of debased coins in the import. The new rise in import proved to be short-lived and limited to Gotland and Öland and on a far lower level compared to the pre-1055 import level. It began to dwindle already c. 1095 and than continued at a low level until c. 1140 when it ceased altogether. The Burge hoard (t.p.q. 1143) marks the end of the Viking-Age type of coin hoards with imported coins from a large number of countries. The local Gotlandic coinage started c. 1140/45 and from now on virtually no coins were imported for the remainder of the century. The Burge hoard is perhaps most famous for the Russian grivnas (fig. 17), which show that trade with the east had continued to be important, although the Russian coinage had been too small to provide evidence of the trade.

It is evident that the Islamic coins found in the Northern Lands do not reflect direct contacts with the Caliphate. The vast majority were no doubt obtained in Russia, which had direct contacts with the Caliphate. Thus, the massive influx of dirhams to Russia in the 9th and 10th cen-



Fig. 18. The Stumle hoard showing how the bronze container was filled with coins.

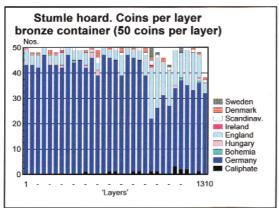


Fig. 19. The geographical distribution of the coins in the Stumle hoard. Each column represents 50 coins (and other objects) starting with the first 50 to the left in the graph.

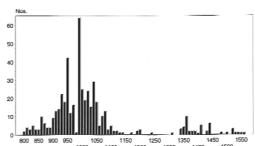


Fig. 20. The number of hoards found on Gotland dating from c. 800–1550.

turies were partly re-exported further west and they give detailed evidence of the contacts between Sweden and Russia. The later coinages in Poland and Russia in the 11th century were too small to have been able to shed light on the contacts between Sweden and the southeast of the Baltic as well as with Russia.

The best evidence of how the Gotlandic traders conducted their business is provided by the Stumle hoard, t.p.q. 1059 (fig. 18). The hoard had been found in a container, where the bottom 500 coins consisted of mainly old coins up to t.p.q. 1053, while the top 800 coins, t.p.q. 1059, contained far fewer old coins (Jonsson & Östergren 1990, 154–158). In this case the bottom 500 coins consisted of the remains of a number of trading expeditions up to c. 1053, while the top 800 coins represented a small portion

similar to the bottom element and a major portion acquired at a trading expedition c. 1059 (fig. 19). Thus, a trader probably was not engaged in trading every year, but every five years or so and part of a stock of silver was used to buy goods, which was then sold at a profit, resulting in more coins being added to the stock of silver.

The dramatic change in the number of hoards found on Gotland in the Viking Age and in the Middle Ages is seen in *fig. 20*. In the 13th century only a single hoard is known and oddly enough it only consists of English, Irish and German coins (Rasmusson 1940). Now, with an abundant continous local coinage, Gotlandic coins were virtually the only means of payment, and foreign coins, i.e. silver, was no longer used as a means of payment.

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