JAARBOEK VOOR MUNT- EN PENNINGKUNDE

93-94
2006-2007

KONINKLIJK NEDERLANDS GENOOTSCHAP
VOOR MUNT- EN PENNINGKUNDE
AMSTERDAM

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ISSN 0920-380X

uitgave

De uitgifte van jaarboeken door het Koninklijk Nederlands Genoootschap voor Munt- en Penningkunde wordt financieel mede mogelijk gemaakt door het Geldmuseum te Utrecht

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A second Viking silver hoard from Wieringen: Westerklief II

Jan Besteman, with contributions by Gert Rispling and Simon Coupland

1. Introduction and historical background

In 1995 and 1996 a metal detectorist discovered a quantity of silver weighing 1663 grams in a field near the hamlet of Westerklief on the former island of Wieringen, Noord-Holland, which was subsequently dated to after *c*. AD 850 and interpreted as the first Viking silver hoard to be found on Dutch soil (Besteman 1997; Besteman 1999). The find was welcomed with great enthusiasm on Wieringen and it stirred up detectoring activities, some of which, performed in the very same field by Mr C. Lont, the brother of the landowner in question, again resulted in the discovery of a quantity of silver belonging to a separate Viking silver hoard, Westerklief II.

The presence of Scandinavian silver on the island was linked to the dominant role played by Danish Vikings in West-Frisia since the middle of the ninth century. Viking raids began during the reign of Charlemagne, but became more frequent and violent when conflicts arose between his successor, Louis the Pious, and the latter's sons. From the 830s on, Frisia was relentlessly scourged, and the Carolingian trade centre Dorestad repeatedly plundered. The Carolingian rulers, powerless in the face of such violence, attempted to appease the Northmen by giving their leaders this territory as a benefice. Louis the Pious probably granted Walcheren to the Dane Harald as early as 840. Ten years later his nephew Roric received *Dorestad and other counties* (i.e. probably the whole of West-Frisia) from Lothar I as a benefice, on condition that he ward off other Vikings (fig. 1). However, Roric did not take his task too seriously. Viking attacks continued and Roric was often elsewhere. He probably used his territory as a base for his own raids and collected the income from it. Nevertheless, to Lothar, granting a benefice to Roric was a serious attempt to win over the Danes to the Carolingian cause.

After Roric's death, his relative Godfred was granted West-Frisia as a benefice in 882. His unpredictable behaviour led to a clash with the rising regional aristocracy, and he was killed during negotiations in 885. This marked the end of Danish power in West-Frisia. The organization of the defence gained momentum, and circular fortifications were built along the coast and in the interior. Viking raids became far less frequent, though it was not until the beginning of the eleventh century that they would finally become a thing of the past.

2. Archaeological context and find circumstances

Westerklief II comprises two finds, which were discovered in 1999 and 2001 about 3 metres from each other in the topsoil, and must have originated from one silver hoard. The plot of pastureland in which the finds were located lies on the west slope of the Pleistocene sandy soil of Westerklief which is 8.5 metres high in places (fig. 2). The plot varies in height from below 0 m NAP (Dutch ordnance level) in the southwest to *c*. 3 m NAP in the northeast. Westerklief I was found just above 0 NAP, though the observations revealed that it was certainly in a secondary position. In 1983, soil which included the finds had been brought from the higher part of the site to the lower part. As far as we can ascertain, the plot of land had always been used as pastureland, except for once, in 1992, when potatoes were cultivated on it, which entailed the necessary soil tilling. The distribution of the various objects of the hoard corresponded to the direction of ploughing. Westerklief II was also discovered in the topsoil but in a higher position *c*. 100 m from Westerklief I. It is uncertain whether this find was also moved together with the soil from the highest section of the plot, because the topsoil here is less thick than at the site of the first hoard, so that in the case of Westerklief II it was possibly only the topsoil which had been disturbed by soil usage in the past. Excavated sections and bore samples taken at the site of the second hoard showed under this topsoil the natural stratification of a podzolic soil, whose A- and generally also B-horizons had disappeared through cultivation and soil replacement. Sections and bore profiles in the higher southeast section of the site showed a B-horizon on top of a C-horizon without an A-horizon, reflecting the degree of soil disturbance due to inclusion of soil material in the topsoil and to the shifting of soil to the lower parts of the field.

The question arose whether there might have been any occupation on the site in the Viking period, because in Scandinavia the numerous silver hoards from the Viking period are often associated with settlements and were often buried in the yard or even under the house itself (Hårdh 1996, 131). Pastureland, however, yields too few finds due to the low level of soil cultivation and to the closed vegetation, and detector finds are rare. As a result, an archaeological field survey does not provide an answer, although the chance finds of fragments of coarse handmade pottery and of a key from the Carolingian period are not without significance. It is worth mentioning that the adjacent east plot is registered as a plot of high archaeological value. A trial investigation on the plot containing the silver finds would be desirable. Both early-medieval and tenth-twelfth-century habitation has been established on the basis of concentrations of finds in the surroundings.

Figure 1. West-Frisia in the Carolingian period: 1. habitation area in Frisia; 2. Pleistocene area; 3. low-lying Holocene area; 4. present coastline; 5. boundary of territory under Danish influence; 6. boundary of largest possible extension of Danish influence sphere (drawing B. Brouwenstijn and Jan Besteman, Amsterdam Archaeological Centre (AAC)).

3. Palaeogeographical reconstruction of the surroundings

The reconstruction of the early-medieval geographical situation on and around Wieringen is problematical because of the continual changes in the natural environment due to the increasing influence of the sea. In the early Middle Ages, the Marsdiep developed into a tidal estuary and the Vlie expanded southward, so that marine influence made itself felt as far as Lake Almere, the later Zuiderzee (fig. 1). Wieringen takes its name from the Carolingian *pagus Wirense* or *Wiron* and lies to the north, on open water, as can be seen from the ninth-tenth century report of the right of salvage at Vatrop and from the place name Vatrop itself (Blok 1962, 87 and 92). To the southwest of Wieringen a small lake developed in about the same period, and this became connected with open water via the Amsteldiep (Schoorl 1973, 32). The present surface area of the Pleistocene soils was substantially greater in the early Middle Ages and has decreased as a result of continuous erosion by the sea. The steep edges of the Pleistocene rises near Vatrop and particularly Westerland are evidence of this. Moreover, extensive salt-marshes bordered the Pleistocene land on the sea side, and to the south of Wieringen there was a vast stretch of inhospitable peat bog, so that we can certainly speak of an island situation.

The presence of Carolingian royal and ecclesiastical estates reflects the strategic and economic importance of the island, which, as a result of changes in water management, had come to lie on the newly-created trade route from Central Frisia to Dorestad. Historically mentioned place names and concentrations of early-medieval finds indicate where Carolingian settlements must have been situated (fig. 2). According to the first descriptions, Wieringen consisted of two parts, a situation still possibly referred to by the names of two church villages, Westerland and Oosterland. Nevertheless the churches of Stroe, formerly dedicated to St. Willibrord, and Hippolytushoef, appear to have been the oldest. A broad depression between Stroe and Vatrop, which possibly already contained water at that time, may have formed the boundary between the two parts.

On the basis of the pollen analysis of a sample taken from the grass used as packing material for the silver of Westerklief I, we were able to reconstruct the landscape of Wieringen in the ninth century as an open landscape with a great deal of pastureland and the occasional tree such as birch and alder, as well as some rye cultivation (Besteman 1997, 211-2). In the surroundings, heath could probably be found in the extensive peatlands south of the island or on the high uncultivated soils, and salt-loving plant species point to the vicinity of salt-marshes.

The sites of both silver hoards at Westerklief are located on the west flank of the high soils of Westerklief on the edge of a depression enclosed on three sides by

the high boulder clay soils of Westerland, Westerklief and Den Hoelm[1]. One might wonder whether this depression was filled with peat in the ninth century, or whether it already offered free access to water, in which case it would have been a sheltered landing-place for ships. Taking everything into consideration, Wieringen would have been a most suitable place of settlement for the Danes in the period that Danish Vikings under Roric and Godfred controlled West-Frisia, because of its favourable position on the Vlie-Almere route and the presence of Carolingian estates (fig. 1). This conclusion, which is based on the Scandinavian character of the Westerklief I silver hoard, can now be affirmed by Westerklief II.

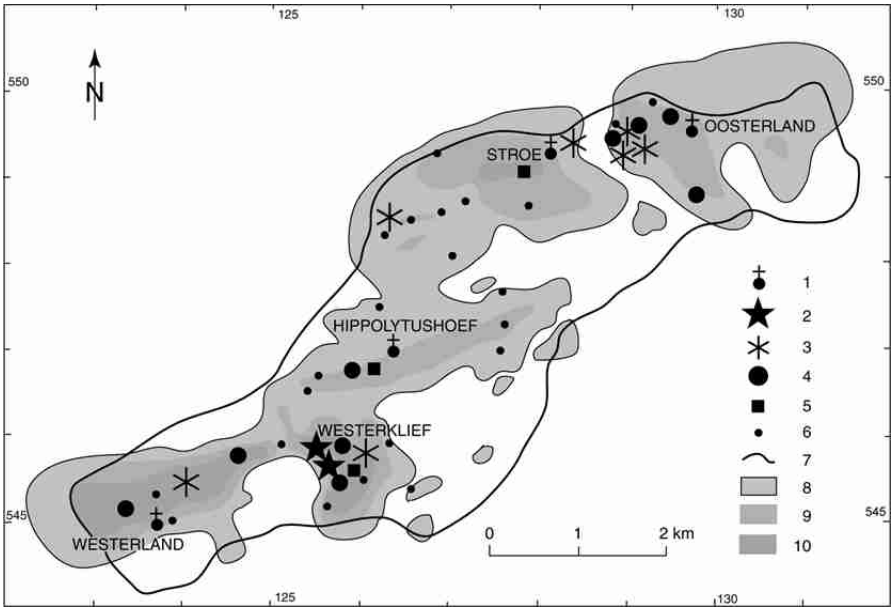

Figure 2. Wieringen: Pleistocene area and distribution of Carolingian finds:
1. old church village; 2. silver hoards; 3. Arabic coin; 4. Carolingian settlement;
5. possible Viking ornament; 6. isolated Carolingian find;
7. present coastline and boundary of former island;
8. inhabitable boulder clay and cover sand area; 9. idem 2.5 m above sea-level;
10. idem 5 m above sea-level.
(drawing Jan Besteman).

1 The last place name is very rare in the Netherlands and is intriguing, because this most southerly, isolated Pleistocene rise fully complies with the meaning of Scandinavian *hulm*/*holm*, which is a small island or peninsula. However, the toponymist Blok (1978, 43) rejects a Scandinavian provenance because the name is also found in the Old Saxon epic poem *Heliand,* and may have been handed down via that language. Until the Scandinavian origin can be proven, the Saxon derivation continues to be his sole preference.

Figure 3. The Westerklief II hoard (1999 find) (photograph Jan Besteman).

4. The contents of the Westerklief II hoard

Westerklief II was discovered in two parts, situated less than 3 m apart, in 1999 (fig. 3) and 2001 (fig. 4). Because the nature of the finds was identical, and in both cases pottery sherds from the same pot containing the silver were found which even fitted together, it is certain that the two parts constitute one single find complex. The finds comprise 457 g of silver and a quantity of pottery sherds. The hoard consists of unminted silver, ingots, ornaments and separate pieces of silver and Arabic and Carolingian coins. A survey of the silver can be found in Table 5. A large proportion of the silver has been deliberately fragmented into hacksilver. This aspect will be discussed in detail in a separate section.
The entire Westerklief II hoard was acquired by the former Wieringen museum 'Huis van de Aarde' in Den Oever with the support of the municipality of Wieringen, except for one Arabic coin (catalogue no. 42) which is still in the possession of the finder of the hoard. Since 2004, the hoard has been exhibited in the specially built Viking Information Centre at Den Oever.

4.1. The container of the Westerklief II hoard: the Badorf pot

The silver was found together with fragments of a very small pot made of light orange-yellow low-fired fabric (fig. 5). The fabric is slightly and finely tempered. The small round pot has a trimmed base and an everted rim which has a roughly applied roulette decoration of square notches. Two fine grooves are visible on the neck. Form and fabric point unequivocally to a provenance from the Carolingian potters' centres in the Vorgebirge between Cologne and Bonn, where this type of pottery was produced in the second half of the eighth and ninth centuries. In the typology of Carolingian pottery from the Dorestad excavations, this pot belongs to type W IV C (Van Es & Verwers 1980, 87-9). The pot is remarkably small with an outer rim diameter of only 7 cm, though large enough to contain the 457 grams of silver. Consequently, it is reasonable to assume that the Westerklief II silver hoard is almost intact. Nevertheless more than half the sherds are missing, which can largely be ascribed to the circumstance that the hoard is a detector find and that pottery is not particularly interesting to most detectorists. The final use of the pot as a container for the hoard can be dated by the coin contents after 875-877, which makes it one of the latest coin dates for the characteristic Carolingian Badorf pottery. This surprisingly late date is evidence that this type of Badorf pottery continued to be used at least until the last quarter of the ninth century.

Figure 4. The Westerklief II hoard (2001 find) (photograph Jan Besteman).

4.2. Non-numismatic silver (figs. 6 nos 1-25)

Apart from one complete ingot and an imitation coin brooch, the non-numismatic silver consists of hacksilver from cast silver ingots and ornaments and together weighs 163 g. The measurements, weights and manner of fragmentation are shown in Table 1, as are any traces of secondary processing or testing.

4.2.1. Cast silver ingots (figs. 6 nos 1-13 and table 1).

a. One cast silver ingot is complete. It is D-shaped in cross-section and weighs 36.82 g.
b. In addition there are 12 deliberately fragmented silver ingots, of which only the breadth and thickness are complete, together weighing 107.63 g. This hacksilver also originates from the same type of cast ingots. In most cases they are somewhat D-shaped or more or less triangular (nos. 10 and 12) or trapezial (nos. 3, 8, 11 and 13) in cross-section, which is a familiar phenomenon in the ingots and moulds known from Hedeby. In the case of the latter, it may partly have been the result of chopping the silver on an anvil. Most fragments have first been cut and then broken off as is visible from the cross sections (fig. 7). Four fragments are terminals of a silver ingot. As far as the

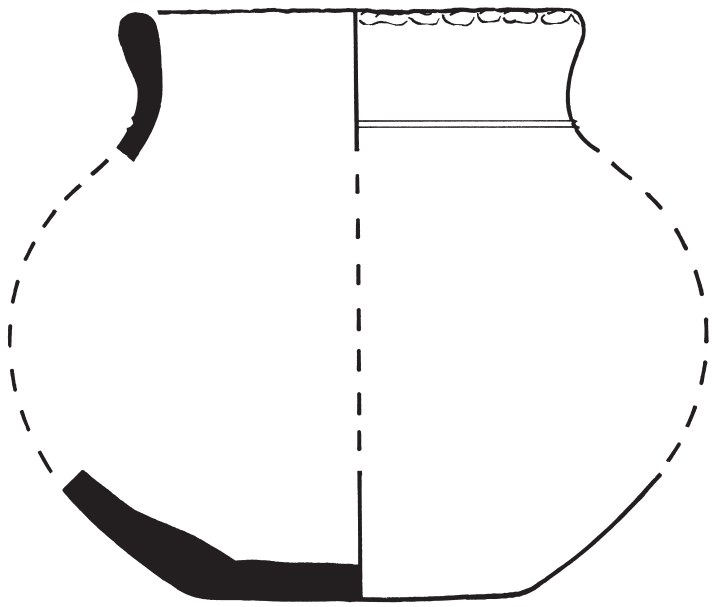

Figure 5. The container of the hoard: small Badorf pot, scale 88% (drawing B. Donker AAC).

Figure 6.1. Westerklief II: Non-numismatic silver nos. 1-12, scale 1:1 (photographs Geldmuseum, Utrecht, processing Anneke Dekker (AAC).

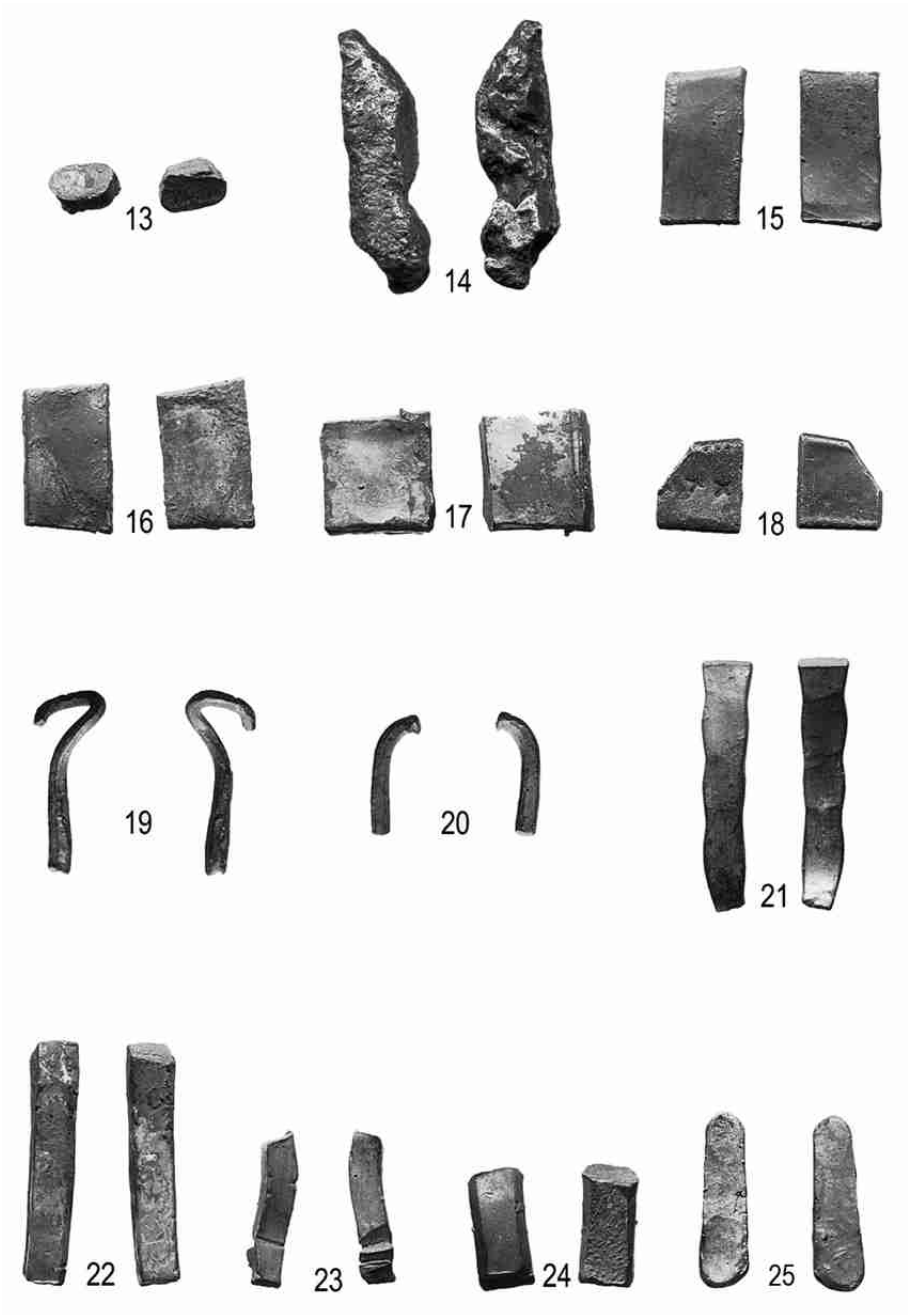

Figure 6.2. Westerklief II: Non-numismatic silver nos. 13-25.

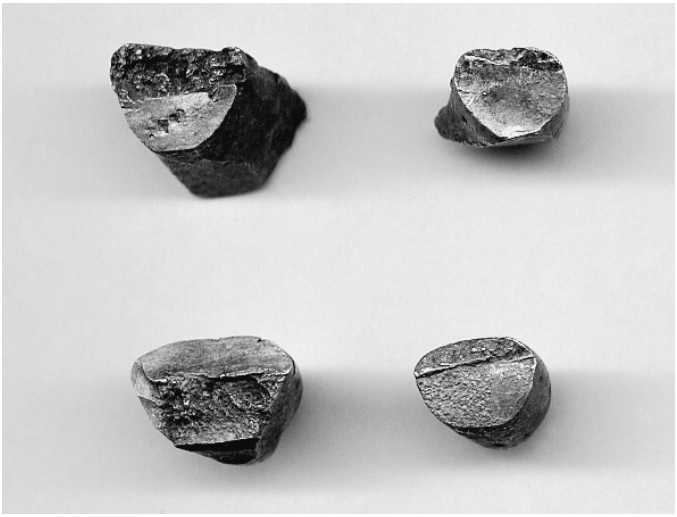

Figure 7. Cross sections of ingot fragments, scale 1:1,8 (photograph Jan Besteman).

measurements permit, most of the ingots can be reconstructed as fairly light ingots compared with those of Westerklief I. One fragment has several nicks on one side, which is typical of very early hacksilver (fig. 6 no. 10).

c. Shapeless cast silver fragment. A most irregular piece of silver weighing 12.34 g not cast in a mould. The item has not been melted down properly, has many cavities and has been trimmed a little on four sides (fig.6 no. 14).

The cast silver ingots consist mainly of hacksilver. The ingots belong to the type that was cast in soapstone moulds and received no further finishing. They are especially found in Denmark and southern Sweden (Wiechmann 1996, 67). As far as the measurements are available, they are all within the limits of the soapstone ingot moulds found at Hedeby and ingots from Schleswig-Holstein (Resi 1979, 62-3; Wiechmann 1996, 66). Two comparable moulds were present in a piece of soapstone found at Dorestad (Kars & Wevers 1982, 173-5). Finds of ingots associated with Vikings are very rare in the Carolingian empire. The hoard from Molliens-Vidame (France, département Somme) appears to have contained two silver ingots according to the report 'of a form suitable for making deniers', together weighing *c*. 252 g (Haertle 1997, II, no. 678). This is rather heavy for Viking ingots. A recent find referred to as found at Château Gaillard (F. département Haute Normandie), does conform to the usual Scandinavian ingots[2], as does

2 Information Drs. A. Pol (Geldmuseum, Utrecht).

an ingot from Kloosterwierde (province of Groningen) (Knol 1998-9, 23) and one from Wijnaldum (province of Friesland) (collection G. Suierveld, Joure), both weighing 26 g.

4.2.2. Sheet fragments of hacksilver

The three fragments together weigh 15.28 g. There is a fragment of band-shaped silver nicked and hacked on both sides (fig. 6 no. 15). Two fragments had first been nicked on four sides and then either hacked (no. 16) or broken (no. 17).

4.2.3. Ornament fragments (27.76 g)

a. A band-shaped fragment (fig. 6 no.18) with dots punched along the rounded edges and with stamped crosses in the longitudinal axis originates from an ornament, probably a fragment of an arm-ring. The crosses, three of them visible, are small and have been placed in a random position.
b. Six rod-shaped mostly curved fragments probably originate from rod-shaped ornaments or ornaments ending in rods. This is certain in the case of the two fragments of a fastening. They probably come from a neck-ring with a hook fastening of the Hårdh type 6a which occurs exclusively in western Scandinavia, particularly Denmark (Hårdh 1996, 50). The remaining rod fragments may also originate from a neck-ring because of their square or lozenge-shaped cross-sections and the curved shape, plus the fact that the fragments taper. The latter is not discernable in the short fragment (fig. 6 no. 24), though the regular octagonal cross-section and curvature do point to this.
c. In addition there is a small silver rod heavily hammered flat on four sides which has resulted in rounded off terminals (fig. 6. no. 25). The original rod possibly also formed part of an ornament because it tapers on one side just like the unhammered fragments in 2.3b above.

Table 1. Westerklief II: measurements and weights of non-numismatic silver.

no.	description	number of cuts	length	width	height	weight
1	ingot	0	57	14	7	36.823
2	fragment of ingot	1	45	12	6	26.213
3	fragment of ingot	1	25	13	9	20.834
4	fragment of ingot	1	11	11	6	4.379

no.	description	number of cuts	length	width	height	weight
5	fragment of ingot	1	10	12	8	5.346
6	fragment of ingot	1	9	9	7	3.711
7	fragment of ingot	2	25	10-14	7	15.543
8	fragment of ingot	2	17	7-11	7	8.156
9	fragment of ingot	2	15	6-9	7	7.187
10	fragment of ingot	2	12	8	7	3.779
11	fragment of ingot	2	8	8- 9	8	3.7
12	fragment of ingot	2	10-12	8-11	6	7.197
13	fragment of ingot	2	4-6	9	5	1.583
14	failed ingot		31	10	8	12.339
15	sheet fragment	4	21	10	2	3.946
16	sheet fragment	4	15	14-15	4	7.519
17	sheet fragment	4	19	11	2	3.817
18	armband fragment	3	12-13	2,2	12	2.141
19	neck-ring fragment	1	24	2-3	2-3	1.5
20	neck-ring fragment	2	15	2 -2,5	2-2,5	0.82
21	ring/rod fragment	2	32	5-6	2-3	3.933
22	ring/rod fragment	2	32	5-6	5	7.572
23	rod fragment	2	20	4-5	5	3.031
24	ring fragment	2	15	7	5	4.827
25	hammered rod		27	6-8	3	3.932

4.3. Imitation coin brooch (fig. 8)

The ornament consists of an imitation coin mounted in a double beaded wire rim and is rather worn and corroded and recently broken. It weighs 7.26 g. The brooch has a diameter of 30 mm; the imitation coin measures 22 mm. The form and the rough open structure of the recent fracture suggest that the coin had been cast. From the pivot stand soldered on it, it appears to have been a brooch. This type of pinholder consisted of a narrow strip of silver ribbed on the visible side which had been bent up, and then folded down twice

in such way that two upright stands were formed in the otherwise flat strip. Stretch marks on the strip prove that it has been made by pulling it through a conical hole. On the Westerklief brooch the folded strip appears to have been broken off in the fold before the second stand, which is missing. The stands were perforated so that a small pivot holding the pin could be attached in the holes. The only stand left had been broken off and part of it is shown next to the brooch. The pinholder had been soldered on to the brooch and remains of solder opposite the pinholder showed where the missing pin catch had been attached. The two beaded wires were separately soldered around the coin. They were not made by filing because no traces of this were present, but they may have been pressed with the help of a two-part mould, a so-called *organarium*.
The silver imitation coin is a cast imitation of the gold *solidi* minted in the name of Louis the Pious, with the portrait bust facing right in the style of a Roman emperor. The obverse bears the circumscript text: I'IIIVVDOVIIMΛVC, a very debased form of the legend *Hludovvicus Imp Aug* The reverse side is now illegible but before it was cleaned it showed at least a character 'O' in the circumscript text and part of a vaguely visible central cross with wreath.

Further research with the scanning electron microscope (SEM, JEOL 5910LV) by Dr I. Joosten (Netherlands Institute of Cultural Heritage (ICN), Amsterdam) confirmed the presumptions of the macroscopic observations[3]. The unaltered crystal structure of the silver in the break of the imitation coin (fig. 9) leads us to assume that it had indeed been cast. By means of Energy Dispersive Spectroscopy (EDS, Vantage, Thermo Noran) of the brooch, which is qualitative analyses of the elements in the metal, it could be proved that the coin consisted of pure silver, whereas both the beaded wire and the pinholder consisted of silver with traces of gold and copper. This indicates that these parts were made of the same basic material. Between the coin and the beaded wire there proved to be tin, confirming that the beaded wire had been soldered on to the coin with tin.
Imitation *solidi* are known in significant numbers from Frisia, in much smaller numbers from the British Isles, and hardly at all in the rest of the Carolingian empire. The clear implication is that they were produced unofficially somewhere in Frisia, and possibly in the British Isles as well (Boersma 1976-7; Grierson / Blackburn 1987, 329-330; Coupland 2006, 254-255). These imitation *solidi* are made of gold, however, whereas this piece is silver with traces of

3 Dr. I. Joosten (ICN) and Drs H. Koens (AAC) commented on the brooch for which I am very grateful.

Figure 8. Westerklief II: Imitation coin brooch, scale 1:1
(photograph Geldmuseum, Utrecht, processing Anneke Dekker).

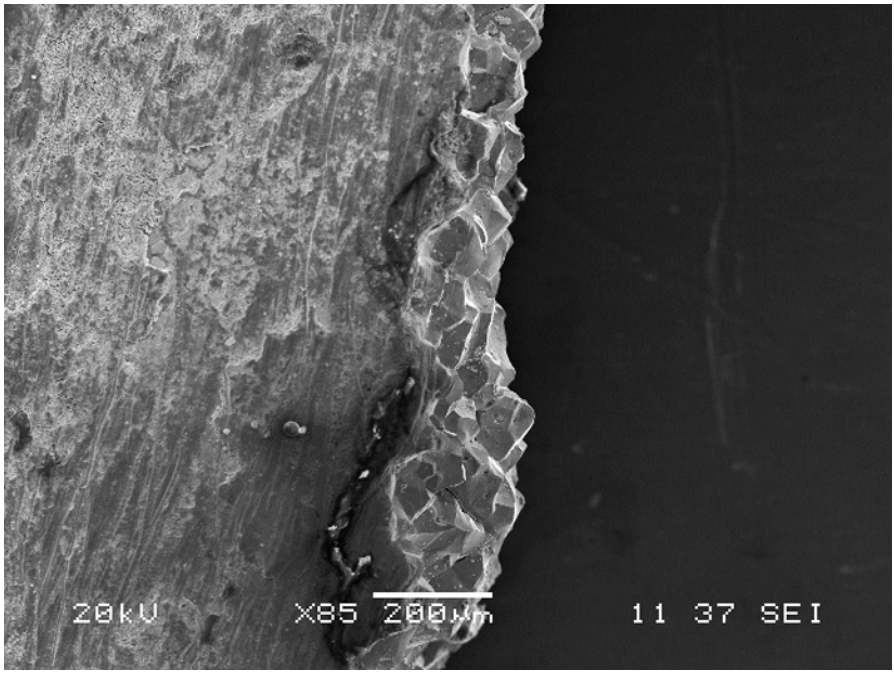

Figure 9. Regular crystal structure of the silver in the break of the coin,
(electron microscope scan, ICN).

gold in the beaded rim and pinholder only. Although the original gold *solidi* may have functioned as a prestigious Carolingian gift to highranking officials and foreign allies rather than as currency (Wamers 2005), the imitations probably combined economic and prestigious functions. The original *solidi* with the image of the emperor offered the bearer enough prestige to display it publicly, mounted in a brooch; the same may occur with the imitation *solidi*, much sought after and useful in the economy and also attractive in a brooch.
A parallel for this brooch is a gold specimen with cast *solidus* imitation found at Hedeby (Armbruster 2002, 110-4), and made in the same fashion as the Westerklief brooch. Two parallels in the Staatlichen Museen, Berlin have the same appearance. Coin brooches or pendants mounted in a multiple beaded wire were popular in Scandinavia as appears from hoards from Hon (Norway), Krinkberg (Schleswig-Holstein), Gärsnäs, Ö. Herrestad (Sweden), Klein-Roscharden II, (Niedersachsen) but often mounted with oriental coins. Westerklief I also contained three of such brooches mounted with oriental coins. Other Dutch finds of ornaments with Arabic coins known from Wijnaldum, Domburg, Zuidbarge and Zoelen apparently also originate from Scandinavia. Coin ornaments nevertheless, still had a longstanding tradition in Frisia since the Migration period, but in the Carolingian period they were mostly completely cast in bronze. As evident from the numerous Frisian finds of imitation coin brooches, they were unprecedentedly popular from the ninth to the eleventh century. The origin of the Westerklief brooch will be discussed in more detail below.

4.4. The Islamic coins in the Westerklief II hoard[4]

BY GERT RISPLING

4.4.1. Basic data

The Westerklief II hoard contains 95 oriental coins – Islamic dirhams of which, 42 are whole and 53 fragmentary. The coins weigh 198 g, of which 81 g is hacksilver. The average weight of the hacksilver fragments is 1.53 grams.
Besides the Islamic coins there are 39 Carolingian coins of which one in an ornament. This combination of Islamic and Carolingian coins in the hoard certainly makes it unique, but apart from this, the greatest interest lies in the location

4 Orientalists prefer the use of Islamic rather than Arabic which is used in archaeological publications.

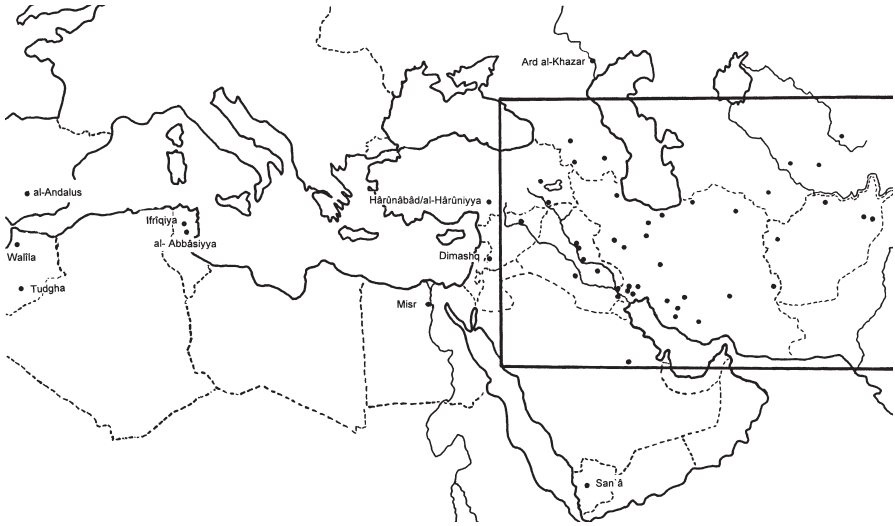

Figure 10. Map showing early Islamic mints typical of the period 77-260/696-873 (gold, silver). The Islamic copper mints are not included, since copper was never part of the trade between Islam and East/North Europe (drawing Gert Rispling).

of the find-place. From the Scandinavian point of view it is on the 'wrong' side of the border between the Northern Lands and the West Europe of that time. On the other hand, the coins themselves are all quite ordinary. In this respect the Westerklief II hoard has certain characteristics in common with most early medieval Islamic coin hoards from outside the territory of the former Islamic empire (the Caliphate). A typical feature is the mixture of new and very old coins from all over the caliphate. All kinds of coin types, geographically and chronologically, are represented. There is also a tendency in Viking-age hoards that the most recent Islamic coins are few in number, which perhaps suggests that assemblages of different age have been mixed and amalgamated on the way.

The oldest coin in the hoard (figs 14, No. 1) is a fragment of an Umayyad dirham struck at the mint of Darabjird in the Fars province, southern Iran. It is dated AH 93 (AD 711/12). The other early Umayyad dirhams in the hoard are from the mint of Wâsit in the 'Irâq province, present-day southern Iraq (figs. 10 and 11). The most recent coin (No. 90) is also from Iraq, struck in 257 (870/71) at the mint of Samarra. This mint town, which is never called *Sâmarrâ* on the coins but *Surra man ra'â* ('Happy those who see it'), was the seat of the Abbasid caliphate from 836 to 889. However, two other coins (Nos. 91, 92) appear to be even later, though they cannot be dated with certainty. They were struck from worn dies and the legends are partly or wholly illegible. Both should probably

Figure 11. Detailed map of early central Islamic mints (drawing Gert Rispling).

be dated to 260 (873/74). This means a time-span of 165 or 168 Hyra-years (160 or 163 AD-years) between the oldest and youngest coins.

4.4.2. Dynastic distribution

The composition of Westerklief II is analysed as usual by dividing oriental coins into dynasties. The dynastic distribution of the 95 dirhams is given in Table 2. As expected, the majority consists of coins from the two caliphal dynasties, the Umayyads (7.4 %) and the Abbasids (88.4 %). One coin, whose mint-name and date are cut off, is tentatively attributed to the independent Umayyad emirate in Spain. This Spanish-Arabic coin, if correctly attributed, circulated eastward from Spain via North Africa to Iraq, from where it passed on to Northern Lands via the Caucasus or the Caspian Sea.

4.4.3. What the hoard does not contain

On the whole, the dynastic distribution of the 95 coins in the Westerklief II hoard appears normal, taking into account the rather small number of coins. The fact that there is not one single coin from the 6th or 7th century is noteworthy, but not very astonishing. Pre-Islamic Sasanian drachms do occur in many pre-900 hoards, but are never common. Nor does Westerklief contain any Arab-Sasanian

Table 2. The dynastic distribution of Islamic coins in the Westerklief II hoard.

Dynasty	Number of coins	%
Sasanian Empire	0	0
Pre-reform Umayyad	0	0
Pre-reform Abbasid	0	0
Post-reform Umayyad	7	7.4
Umayyad of Spain	1	1.1
Abbasid	84	88.4
Idrisid	0	0
Tahirid	0	0
Imitations	3	3.1
Totals	95	100

coins, neither pre-reform Umayyad drachms (651-98), nor pre-reform Abbasid semi-drachms (761-95). No Tahirid coins (North Eastern Iran and Central Asia) were found in the hoard.

4.4.4. Imitations present

At the beginning of the last third of the ninth century, imitative Islamic coinages developed in North Africa and Eastern Europe. The imitations strived to have the qualities of official Islamic dirhams, but were often – though not always – executed in a crude fashion. While the silver content is faultless, their legends often contain errors. Westerklief II contains a few imitations (3.1 %) to be attributed to Eastern Europe. A percentage of 3.1 would be quite normal for a 9th-century Scandinavian hoard. In such hoards imitations are still not as common as in the following century. Some hoards lack imitations completely, while other hoards, especially in Northern Russia, show quite high figures of Islamic-type imitations. It is argued here that one of the Westerklief imitations probably is Khazarian in origin. The source of the other two is uncertain.

4.4.5. Regional distribution

The dynastic breakdown is supplemented by a table showing the regional distribution of the mints involved (Table 3). The area of origin has been divided into ten regions, instead of the usual Islamic provinces.

Table 3. The regional composition of the Islamic coins in Westerklief II.

Region	Mints and numbers	%
Spain-N Africa-Egypt	al-Andalus (1)	
	al-ʿAbbâsîya (1)	2.1
Arabia-Greater Syria-Anatolia	al-Yamâma (1)	1.1
N and S Iraq	Wâsit (5)	
	al-Basra (3)	
	al-Kûfa (1)	
	Madînat al-Salâm (25)	
	Surra man ra'â (1)	
	mint? (2) (nos. 7,18)	38.9
S Iran	Dârâbjird (1)	
	Zaranj (1)	2.1
N Iran	al-Muhammadîya (6)	
	Isbahân (1)	7.4
NE Iran-Turkmenistan	Marw (1)	1.1
Afghanistan	Balkh (1)	1.1
Central Asia	Samarqand (9)	
	al-Shâsh (1)	10.5
S Caucasus	Maʿdin Bâjunays (1)	
	Armîniya (2)	3.2
N Caucasus-Russia	mint? (3)	3.2
Unknown region: Iran, Central Asia or S Caucasus	mint? (26)	27.4

Most coins (38.9%) originate from mints in the ʿIrâq province (today Southern Iraq). An even higher figure (50%) would be normal, if the Westerklief hoard had belonged to the very first wave of finds (800-825). Being a little later, Westerklief contains relatively more coins from Iran and Central Asia. 'Unknown region' needs to be explained. A large portion of unattributed dirhams (27.4%) cannot be attributed to its mint, and another large portion cannot be securely dated. This is because there are so many 'obliterated' or 'blank' coins in all hoards from mid-800. These coins are not worn. Mints in the northern parts of the caliphate obviously had difficulties in delivering the quantities demanded.

The dies were used far beyond their normal life-spans, which resulted in partly or wholly blank coins. Weakly struck dirhams occur during the whole period of 833-92, but the worst examples mostly fall the 230s and 240s (*c*. 845-65 AD).

4.4.6. Chronological distribution

Unlike many contemporaneous coins, the Islamic dirham bears the date (year) it was struck, a great advantage in dating the deposition of coin hoards and in analysing the contents of a hoard. A chart based on the years the coins were struck is usually very informative. A disadvantage is of course that coins that have not been dated to a certain year will be omitted. Since the Westerklief II hoard contains a considerable amount of only vaguely dated coins, a detailed year-chart would here be of reduced value. Instead, a ten-year chart including 71 of the 95 coins is given (fig. 12).

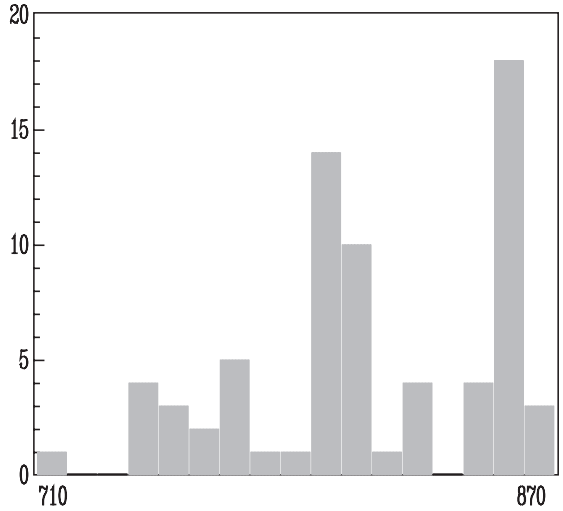

Figure 12. Chart showing 71 Islamic coins in Westerklief II dated to ten-year periods.

Another graph does include all the coins, divided into three chronological periods (fig. 13*)*. The average number of coins per year in the last period ('late Abbasid', 833-70 AD) is clearly higher than that of the preceding period. This may seem surprising, taking into account the overall decline in Islamic mint output in the ninth century (Noonan 1986). The higher level of late Abbasid coins in Westerklief and other hoards is explained by the very great demand for coins around mid-800. The find coins were primarily drawn from the coin stocks

in the northernmost regions. Only on such coins is the die-comparison method useful (e.g. Samarqand 245 and Armîniya 252 in Westerklief).

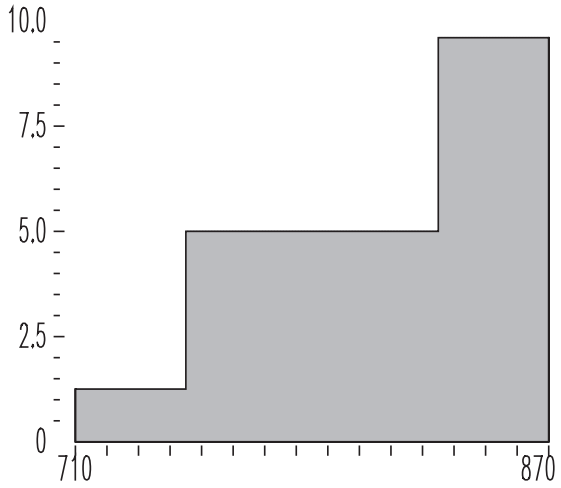

Figure. 13. Chart showing all 95 coins in Westerklief II, divided into three chronological periods.

4.4.7. Other finds from this period

For reasons of comparison, a number of similar hoards are presented here. They are hoards from the Northern Lands, Russia excluded. They consist of at least 10 oriental (Sasanian and Islamic) coins, the most recent of which is dated between 250 and 270 AH (864-84 AD). An obvious difference, compared to Westerklief, is the fact that none of these hoards has a large Carolingian component.

1 Äskedalen, Loftahammar parish, Småland province, Sweden (2049 coins, terminus post quem (tpq) 250/864-65).
2 Långhalsen, Vrena, Södermanland, Sweden (244, of which 1 Carolingian, tpq 251/865-66).
3 Fittja, Fittja, Uppland, Sweden (139 coins, tpq 252/866-67).
4 Lilla Vägome, Lärbro, Gotland, Sweden (233 coins, tpq 252/866-67).
5 Spillings I (1999), Othem, Gotland, Sweden (c. 5100 coins, prel. tpq 252/866-67). Only a couple of hundred coins examined so far. Spillings I and II are probably to be regarded as one hoard, despite the fact that they were found three metres from each other.

6 Ajmunds, Mästerby, Gotland, Sweden (16 coins, tpq 253/867).
7 Broby, Voxtorp, Småland, Sweden (82 coins, tpq 253/867).
8 Häffinds V, Burs, Gotland, Sweden (13 coins, tpq 253/867).
9 Karnice, Lobez (Carnitz, Kreis Regenwalde), Poland (143 coins, tpq 253/867).
10 Poreche, Plisa, Vitebsk, Belarussia (45 coins, tpq 253/867).
11 Alskute (Hallbåter), Levide, Gotland, Sweden (132 coins, tpq 254/868).
12 Östris, Alva, Gotland, Sweden (494 coins, tpq 256/869-70).
13 Drohiczyn, Siemiatycze, Podlasien, Poland (307 coins, tpq 256/869-70).
14 Hemmor, När, Gotland, Sweden (316 coins, tpq 257/870-71).
15 Spillings II (1999), Othem, Gotland, Sweden (c. 9100 coins, prel. tpq 257/870-71). 3000 coins examined so far, including 4 Nordic (Hedeby, c. 825-) and 1 Byzantine (830s).
16 Westerklief II, Wieringen, Netherlands (95 Islamic, tpq 257/870-71 or 260/873-74) and 39 Carolingian (tpq 875-77).
17 Livland/Livonia (found in 1828), Estonia or Latvia (38 coins, tpq 258/871-72).
18 Vikare, Viklau, Gotland, Sweden (129 coins, tpq 259/872-73).
19 Rantrum, Nordfriesland, Schleswig-Holstein, Germany (13 coins, tpq 260-63/873-77).
20 Spillings (found in 1878), Othem, Gotland, Sweden (394 coins, tpq 261/874-75).
21 Bertby, Saltvik, Åland, Finland (882 coins, tpq 262/875-76 or 277/890-91).
22 Bölske, Eke, Gotland, Sweden (174 coins, tpq 263/876-77).
23 Kysings, Vall, Gotland, Sweden (119 coins, tpq 263/876-77).
24 Slite, Othem, Gotland, Sweden (12 coins, tpq 265/878-79).
25 Dals, Grötlingbo, Gotland, Sweden (47 coins, tpq 267/880-81).
26 Algutsrum, Algutsrum, Öland, Sweden (13 coins, tpq 268/881-82).
27 Czechów, Lublin, Poland (766 coins, tpq 270/883-84).
28 Kinner, Lummelunda, Gotland, Sweden (301 coins, tpq 270/883-84).

However, in working with Westerklief it is a tenth-century hoard that most often comes to mind, *viz*. Stora Velinge I, Buttle parish, Gotland, Sweden (2673 coins, found in 1936). Although its tpq is 298/910-11, the bulk of the hoard is of the same type as in Westerklief. (CNS 1.2.38).

4.4.8. Individual data

Primary individual data – weight, diameter, die axis – are given in the list. The die axis on Islamic coins is sometimes important, provided that the die identity of the coin has been established, and certain imitation groups are characterized by a fixed die-axis. Such conditions are not prevalent in the Westerklief hoard, so the data included here should only be of limited value. Secondary individual data concerns what happened to a coin after its manufacture. The coins are often very worn and show many traces of use such as bends, dents and folds, trimming, perforation, testing by nicks and scratches. A number of them (21) are nicked or have been chipped and at least 20 have been bent or folded. Two of the folded dirhams have been opened up by the finder and show traces of the anvil in which they were straightened. Seven coins have been perforated and were probably once used as pendants. The 53 hacksilver fragments have been fragmented by cutting, nicking or bending often in combination with breaking or even tearing.
The degree of fragmentation has been noted. The percentage of fragmentary coins in Westerklief is high (56%), especially for a ninth-century hoard. This would indicate that the coins circulated more intensively or for a longer time. Another feature – the so-called *nicks* – may also be used as an argument in favour of such a theory. 'Nicks' are incisions along the coin rim to test the silver content. This phenomenon is typical of oriental coins in the first 'import wave' (800-25) and to a lesser degree afterwards. In the late Viking-age other means of testing were used. In Scandinavia, nicks have been looked upon as a typical Scandinavian trait. However, there are good reasons to believe that the nicks were made before the coins entered Scandinavian soil, since such nicks are frequently found in Russian finds as well. Anyway, the Westerklief coins clearly demonstrate the same pattern as other ninth-century hoards. The older half of Westerklief is more nicked (32%) than the younger one (12.5%). The terminology of various test marks on coins is discussed in the *Corpus Numorum Saeculorum*, where, in fact, it was partly invented.

4.4.9. Catalogue of Islamic coins in Westerklief II (figs. 14 nos. 1-95)

Data:

Dynasty and issuing caliph.
No. and AD date. Mint and Hijra date. Primary and secondary data.
Find no. and find year.

Abbreviations:

AH	Anno Hijrae, in the year of the Emigration of the Prophet from Mecca to Medina on July 16, 622.
obv	Obverse, the side commencing with the first part of the creed formula, *Lâ ilâh illâ Allâh*, There is no god but God.
rev	Reverse, the side with the end of the creed formula, *Muhammad rasûl Allâh*, Muhammad is the messenger of God.
tpq	*Terminus post quem*, earliest possible date of the most recent coin in a hoard.
var	Variant.
/	Separates two lines.
[ ]	Denotes a cut off or broken off part of a coin.
( )	Illegible or blank part of a coin legend.

Catalogue:

		Umayyad caliphate
		temp. al-Walîd I (86-96/705-15)
1	711/12	[Dârâbji]rd 93. Walker 342. 1.393 g, 26 mm, 0°, fragment (<3/4). Recently broken? Two fitting fragments, the rest lacking. Nos. 151 and 158 (2001).
		Caliph?
2	704-17	Wâsit [85-98]. Obv: *fî sanat*. Rev: Letter *wâw* on 2nd line, Walker p. lxv. 1.670 g, 26 mm, 270°, fragment (>3/4), 3 nicks. No. 66 (1999).
		temp. Hishâm (105-25/724-43)
3	739/40	Wâsit [12]2. Walker 573. 1.918 g, 25 mm, 330°, fragment (3/4). No. 63 (1999).
4	739/40	[Wâsit] 12[2]. Walker 573. 1.411 g, 23 mm, 330°, fragment (<1/2), pierced. No. 55 (1999).
5	740/41	Wâsit 123. Walker 574-75. 2.726 g, 25 mm, 180°, whole. No. 51 (1999).

		temp. Ibrâhîm (126-27/744)
6	744	Wâsit [12]7. Seven annulets. Album 140. Walker 582. 1.525 g, 25 mm, 165°, fragment (1/2). No. 44 (1999).
		Caliph?
7	718-49	mint? 1[00-32]. 0.701 g, 30 mm, 30°, fragment (<1/4), bent, 1 nick. No. 102 (1999).
		Spanish-Umayyad emirate
		temp. ʿAbd al-Rahmân I (138-72/756-88)
8	778/79?	[al-Andalus?] *c*.1[62?]. Miles 53. 0.600 g, -mm, 330°, fragment (1/4), 2 nicks. No. 91 (1999). A tentative attribution.
		Abbasid caliphate
		temp. al-Mansûr (136-58/754-75)
9	751/52	al-Basra [13]4. Tornberg, p. 303, 4a. Lowick 968. 1.165 g, -mm, 270°, fragment (<1/2). No. 162 (2001).
10	755/56	al-Basra 138. Lowick 982 (var: obv annulets as Lowick 979, date 137). 2.599 g, 25 mm, 255°, whole but chipped, pierced, 9 nicks. No. 50 (1999). Photo.
11	758/59	al-Kûfa 141. Rev: no sign. Lowick 1107. 2.701 g, 24 mm, 330°, pierced, whole but broken (recently). No. 68 (1999).
12	765/66	Madînat [al-Salâm] 14[8]. Tornberg 33. Lowick 1166. 2.873 g, 25 mm, 270°, fragment (>3/4). No. 54 (1999).
13	766/67	al-Muhammadîya 149. Issued in the name of the caliph-to-be, al-Mahdî, the name being written *a/l-Mahdî Muhammad*. Rev: no signs. Lowick 1595. 2.264 g, 26 mm, 165°, fragment (>3/4). Broken into two parts, the rest missing. No. 145 and 152 (2001).
14	770/71	[Madînat al-Salâ]m [15]4. Too small to show obv annulet type and rev sign type. Lowick 1186-1188. 0.570 g, -mm, 180°, fragment (1/4). No. 41 (1999).
15	770-72	[Madînat al-Salâm] [154-55]. Obv below cut off, otherwise annulets as Lowick 1188-1190. 0.861 g, -mm, 105°, fragment (1/4). No. 164 (2001).

16 771/72 [Madînat al-Salâm] [155]. Part of obv sign below is visible. Rev sign cut off. Annulets? Lowick 1189-1193. 0.916 g, -mm, 150°, fragment (>1/4). No. 45 (1999).

17 773/74 [Madînat al-Salâm] 15[7]. Part of unit of date visible. Obv top: no sign. Lowick 1199, 1201 or 1203. 2.301 g, 25 mm, 270°, fragment (3/4), 1 nick. No. 48 (1999).

temp. al-Saffâh (132-36/750-54)
or al-Mansûr (136-58/754-75)

18 750-65 mint? [132-47]. Dated by style (the ring around the rev field). 0.465 g, -mm, 0°. No. 153 (2001).

al-Mahdî (158-69/775-85)

19 781-83 al-Ya[mâma] [165-66]. Rev top: cut off. Rev below: *Hajr*, the capital of the Yamama district in the Arabian peninsula. Tornberg 106 (plate II). Lowick 571, 573, or 575. 1,421 g, 24 mm, 300°, fragment (1/2). No. 141 (2001).

al-Mahdî (158-69/775-85) or al-Hâdî (169-70/785-86)

20 776-87 [al-ʿAbbâsîya?] (in present-day Tunisia) [*c*.160-70]. Attributed by style. 0.313 g, -mm, 0°, fragment (<1/4), 2 nicks. No. 163 (2001).

Hârûn al-Rashîd (170-93/786-809)

21 795/96 Madînat al-Salâm 179. *Temp*. Hârûn, but issued for the caliph-to-be, *al-Amîn Muhammad*. Rev below: *Jaʿfar*, the Barmakid (on coins 175-186, died in 187/803). Tornberg 155. Lowick 1320. 2.760 g, 25 mm, 75°, whole. No. 149 (2001).

22 802 Madînat al-Salâm [18]6?. Rev below: Jaʿfar. The date not securely read, because of corrosion (type 180-86 AH). 0.877 g, -mm, 0°, fragment (>1/4). No. 87 (1999).

23 804/5 Madînat al-Salâm 18(7). Tornberg 199. Lowick 1364. 2.844 g, 23 mm, 330°, whole, 4 nicks. No. 64 (1999).

24 803/4 Madînat al-Salâm 188. Rev: simple ring around the field. Rev below: letter *hâ'*. Tornberg, II 203 ('circulus duplex' in Tornberg is a mistake). Lowick 1367 and 1368. 2.836 g, 24 mm, 285°, whole. No. 74 (1999).

25 803/4 Madînat al-Salâm 188. Type as previous. 2.727 g, 24 mm, 75°, whole but pierced. No. 113 (2001).

26 803/4 Madînat al-Salâm [1]88. Type as previous. 1.358 g, 22 mm, 300°, fragment (1/2), 1 nick. No. 92 (1999).

27 803/4 al-Muhammadîya 188. Tornberg 205. Lowick 1875. 2.668 g, 24 mm, 315°, whole but pierced. No. 73 (1999).

28 804/5 al-Muhammadîya 189. Rev: *Muhammad /rasûl /Allâh / hâ'*. Tornberg 210 (correction: *hâ'*, not a round dot). Lowick 1889. 2.582 g, 24 mm, 60° whole. No. 76 (1999).

29 804/5 [al-Muhamma]dîya [18]9. Type as previous. 0.929 g, -mm, 270°, fragment (>1/4), 1 nick. No. 40 (1999).

30 805/6 Madînat al-Salâm 190. Annulets obscure. Tornberg 213. Lowick 1375-1376. 2.785 g, 21 mm, 270°, whole, 2 nicks. No. 111 (2001).

31 805/6 Madînat al-Salâm 190. Type as previous. 2.800 g, 21 mm, 105°, whole. No. 144 (2001).

32 806/7 Madînat al-Salâm 191. Tornberg 221. Lowick 1377. 2.693 g, 21 mm, 315°, whole, 5 nicks. No. 78 (1999).

33 806/7 (Madînat al-Salâm) [19]1. Type as previous. 1.127 g, -mm, 270°, fragment (>1/4), 2 nicks. No. 95 (1999).

34 807/8 Madînat Zaranj [1]92. Rev: *[ʿAlî] /Muhammad [rasûl Allâh] /Sallâ Allâh ʿalayhi wa sallam /al-Qawsî /bakhkh*. Lowick 2463. 1.812 g, 26 mm, 45°, fragment (>1/2). No. 56 (1999).

35 808/9 Madînat al-Salâm 193. Rev: *Muhammad /rasûl /Allâh / hâ'*. Tornberg 232. Lowick 1383-1384. 2.461 g, 21 mm, 270°, whole. No. 53 (1999).

al-Amîn (193-98/809-13)

36 810/11 [Maʿdi]n Bâjunays 195. Rev: *[Dâ'û]d /[Muhammad] rasûl Allâh /[mimmâ amara bihî] al-khalîfa /[Muhammad] amir al-mu'minîn /[Sa]rd*. Lowick 923. 1.048 g, -mm, 0°, fragment (<1/2). No. 90 (1999).

37 810/11 Madînat [al-Salâm] [195]. Rev: *[rabbî Allâh] /[Muhammad rasûl Allâh] /mimmâ amara bihî ʿAbdallâh [al-Amîn] / Muhammad amîr al-mu'minîn /al-ʿAbbâs*. Tornberg 247 (correction: 3rd line of rev kalima: Muhammad amîr al-mu'minîn, not '… ibn amîr…'). Lowick 1401. 1.408 g, -mm, 285°, fragment (<1/2). No. 47 (1999).

al-Ma'mûn (counter-caliph in the East 194-98/810-13; East & West 198-218/813-33)

38 809/10 [Marw] 194. Rev: *[lillâh] /[Muhammad rasûl Allâh] / [mimmâ amara bihî al-Ma'mûn] /[walî] ʿahd al-muslimîn /[ʿAb]dallâh bin amîr al-mu'minîn /al-Fadl*. 1.673 g, -mm, 90º, fragment (<1/2). Lowick 2274. No. 161 (2001).

39 809/10 Madînat Samarqand 194. Obv: annulets obscure. Rev: *lil-lâh /Muhammad rasûl Allâh / mimmâ amara bihî al-(amîr/ imâm?) al-Ma'mûn /walî ʿahd al-muslimîn /ʿAbdallâh bin amîr al-mu'minîn*. Lowick 2603. 2.860 g, 23 mm, 270º, whole. No. 120 (2001).

40 810/11 Madînat Balkh 195. Rev: *lillâh /Muhammad [rasûl Allâh] /mimmâ amara bihî [al-amîr/al-imâm al-Ma'mûn] /ʿAbdallâh bin [amîr al-mu'minîn] /(al-Fadl)*. Lowick 2175, 2177 or 2178. 1.616 g, 24 mm, 120º, fragment (1/2). No. 43 (1999).

41 812/13 [Madînat Samarqan]d 197. Rev: *[lillâh bihî] /[Muhammad] rasûl Allâh /mimmâ amara bihî al-imâm /al-Ma'mûn amîr al-mu'minîn /al-Fadl*. Lowick 2654. 1.732 g, 24 mm, 90º, fragment (3/4). No. 143 (2001).

42 813/14 Madînat Isbahân 198. Obv: 5 annulets. Rev: *lillâh / Muhammad /rasûl Allâh /Harthama /BR*. CNS 1.2.38.629 (plate 25). Lowick 1506. 2.815 g, 22 mm, ?º, whole, 2 nicks. No. 104 (1999).

43 814/15 Madînat Samarqand 199. Obv, below: *al-Mashriq*. Rev: *lillâh /Muhammad /rasûl /Allâh /Dhû l-Riyâsatayn*. Tornberg 285 (plate V). Lowick 2668-2669. 2.700 g, 25 mm, 270º, whole, 1 nick. No. 112 (2001).

44 813-16 Madînat al-Salâm [198-200]. Obv below: --. Rev: *[lillâh] /[Muhammad] /[rasûl] Allâh /Dhû l-[Riyâsatayn]*. Tornberg 271, 279, 288. Lowick 1410, 1415, 1419. 0.472 g, -mm, 45º, fragment (1/4). No. 88 (1999).

45 815/16 Marw 200. Obv: *al-Mashriq*; two marginal legends. Marw is the first mint (from 198 AH) to have an outer marginal legend, Koran 30:4-5. Rev: *lillâh / Muhammad /rasûl / Allâh /Dhû l-Riyâsatayn*. Lowick 2285. 2.929 g, 26 mm, 75º, fragment (>3/4), 3 nicks. No. 49 (1999)..

46 819/20 Madînat al-Salâm 204. Obv: two marginal legends. The outer marginal legend, Koran 30:4-5, was introduced in Baghdad in this year. Rev: *lillâh /Muhammad rasûl /Allâh /--*. Lowick 1446, 1447. 2.131 g, 25 mm, 105°, fragment (>3/4). No. 52 (1999).

47 833 [Madînat al-Salâm] 218. Obv: unit of date, *thamân*, written like *thamânî*. Rev: *lillâh /Muhammad /rasûl /Allâh /[--]*. Tornberg 328. Lowick 1471. 1.969 g, 27 mm, 15°, fragment (>3/4), chipped, 7 nicks. No. 65 (1999).

Al-Muʿtasim (218-27/833-42)

48 834/35 Madînat al-Salâm [21]9. Tornberg 330. 1.585 g, 26 mm, 0°, fragment (1/2). No. 82 (1999).

49 834/35 Samarqand 2(1)9. Noonan, Devitsa hoard 167 & 168. 1.715 g, 26 mm, 180°, fragment (>1/2). No. 86 (1999).

50 834-41 Madînat al-Salâm [219-26]. No Muʿtasim coins known from 218 AH, nor from this mint in 227. 1.773 g, 25 mm, 345°, fragment (>1/2), 3 nicks. No. 62 (1999).

51 835-41 Mad[înat al-Salâm] 22[0-6]. 2.271 g, 27 mm, 0°, fragment (>3/4). No. 84 (1999).

Al-Mutawakkil (232-47/847-61)

52 849/50 Madînat al-Salâm 2(35?). Obv below: no name. Obscure photo. Czapkiewicz, Czechów hoard 433. 2.868 g, 24 mm, 180°, whole, has been bent. No. 115 (2001).

53 850-55 mint? 2[36-40]. Obv: *Abû ʿAbdallâh*, who was later to become caliph under the name of al-Muʿtazz billâh. Rev: *lillâh /Muhammad /rasûl /Allâh /al-Mutawakkil ʿalâ llâh*. 1.432 g, -mm, 90°, fragment (1/2). No. 142 (2001).

54 855/56 Marw 241. Obv: *al-Muʿtazz billâh*. Rev: *al-Mutawakkil ʿalâ llâh*. Tornberg, VI 74. 2.864 g, 30 mm, 255°, whole, has been bent, 2 nicks. No. 119 (2001).

55 859/60 al-Basra [245]. Type as 54. CNS 1.1.13C.163. 1.645 g, 23 mm, 180°, fragment (1/2). No. 46 (1999).

56 859/60 (Samarqand) 24[5]. Type as 54. Tornberg, VI 94. 2.642 g, 27 mm, --°, whole but chipped. Dies 1/R-. No. 150 (2001).

57	859/60	al-Shâsh 245. Type as 54. Tornberg, VI 95. 3.009 g, 26 mm, 330°, whole. No. 147 (2001).
58	860/61	(al-Muhammadîya) 246. Type as 54. Tornberg, VI 96. 2.901 g, 25 mm, --°, whole. No. 58 (1999).
59	847-61	mint? (233-47). Obv struck from a worn die. Rev: the caliph's name partly visible. No Mutawakkil coins minted in 232 AH. 2.923 g, 27 mm, 0°, whole. No. 57 (1999).
60	847-61	mint? (233-47). Obv struck from a worn die. Rev partly legible. 2.808 g, 25 mm, --°, whole. No. 85 (1999).
61	847-61	mint? (233-47). Obv obliterated. Rev partly legible. 2.790 g, 24 mm, --°, whole. No. 99 (1999).
62	847-61	mint? [233-47]. Obv weakly struck. Rev partly legible. 1.406 g, 25 mm, 90°, fragment (1/2), 1 nick. No. 160 (2001).
63	850-61	mint? [236-47]. Obv: *[Abû ʿAbda]llâh* or *[al-Muʿtazz bi] llâh*. Rev blank. 0.973 g, -mm, --°, fragment (>1/4). No. 154 (2001).
64	854-61	mint? (240-47). Obv: *(al-Muʿtazz) billâh*. The mint would be legible, if the corrosive surface is removed. 2.845 g, 29 mm, 285°, whole. No. 77 (1999).
65	854-61	mint? 24[0-7]. Reasonably well struck, but corroded. 2.164 g, 25 mm, 225°, fragment (>3/4), 1 nick. No. 148 (2001).
		Al-Mustaʿîn (248-51/862-66)
66	862/63	al-Muhammadîya 248. Obv: no name. Rev: *lillâh / Muhammad /rasûl /Allâh /al-Mustaʿîn billâh*. Tornberg, VI 106. 2.845 g, 23 mm, 45°, whole but pierced. No. 80 (1999).
67	864/65	Madînat al-Salâm 250. Obv: *al-ʿAbbâs bin /amîr al-mu'minîn*. Rev as 66. Tornberg 367. 2.870 g, 24 mm, 60°, whole but chipped. No. 42 (1999).
68	862-65	mint? (248-51). Obv almost blank. Rev double struck. 3.061 g, 26 mm, 180° (and 330°), whole, 1 nick. No. 71 (1999).

69 863-65 mint? (249-51). Obv: type as 67. 2.999 g, 26 mm, --º, whole. No. 69 (1999).

70 863-65 mint? [249-51]. Obv: type as 67. 0.816 g, -mm, 60º, fragment (>1/4). No. 155 (2001).

Al-Muʿtazz (251-55/866-69)

71 866/67 Armîniya 252. Obv: no name. Rev: *al-Muʿtazz billâh / amîr al-mu'minîn*. Tornberg 375. 3.136 g, 23 mm, 60º, whole but the reverse very corroded. Dies 2/R1. No. 70 (1999).

72 866/67 Armîniya 252. Type as 71. 2.920 g, 22 mm, 45º, whole. Dies 6/R4. No. 75 (1999).

73 867 Samarqand 25(3). Type as 71. Tornberg, VI 125. 3.031 g, 24 mm, 225º, whole. No. 81 (1999).

74 867 Samarqand 253. Type as 73. 2.875 g, 26 mm, 75º?, whole. No. 116 (2001).

75 867 Samarqand 253. Type as 73. 2.659 g, 25 mm, 180º, whole. No. 67 (1999).

76 867 Samarqand 253. Type as 73. 2.267 g, 26 mm, 270º, fragment (>3/4). No. 83 (1999).

77 867 mint? [Samarqand or al-Shâsh?] 25[3]. Type as 73. 2.291 g, 24 mm, 30º, fragment (>3/4), pierced. No. 89 (1999).

Caliph?

78 834-69 mint? (219-55). 2.672 g, 27 mm, 300º, whole but has been bent. No. 117 (2001).

79 834-69 mint? (219-55). 2.887 g, 26 mm, --º, whole but broken (recently). No. 146 (2001).

80 834-69 mint? [219-55]. 1.523 g, -mm, 30º, fragment (>1/4). No. 94 (1999).

81 834-69 mint? [219-55]. 1.300 g, -mm, 30º, fragment (>1/4). No. 157 (2001).

82 834-69 mint? [219-55]. 0.580 g, -mm, 30º, fragment (1/4). No. 156 (2001).

83 844-69 mint? (*c*.230-55). 3.401 g, 24 mm, --º, whole. Worn dies, corroded. No. 98 (1999).

84 844-69 mint? (*c*.230-55). 2.773 g, 26 mm, --º, whole but has been bent. Weakly struck and heavily corroded. No. 114 (2001).

85 844-69 mint? (*c*.230-55). 2.607 g, 25 mm, --º, whole. Only rings and circles engraved in the dies, no legends. A Samarqand issue? CNS 1.2.38.13 (same dies?). No. 118 (2001).

86 844-69 mint? [*c*.230-55]. 1.695 g, 24 mm, --º, fragment (>1/2). No. 97 (1999).

87 844-69 mint? [*c*.230-55]. 1.495 g, -mm, --º, fragment (<1/2). No. 96 (1999).

88 844-69 mint? [*c*.230-55]. 1.170 g, -mm, --º, fragment (<1/2). No. 103 (1999).

89 844-69 mint? [*c*.230-55]. 0.794 g, -mm, --º, fragment (>1/4). No. 101 (1999).

Al-Muʿtamid (256-79/870-92)

90 870/71 Surra man ra'â 257. Obv: *Jaʿfar*, the son of al-Muʿtamid. Rev: *lillâh /Muhammad /rasûl Allâh /al-Muʿtamid ʿalâ llâh*. 2.642 g, 23 mm, 345º, whole. No. 79 (1999).

91 870-79 mint? [256-65] or (Samarqand?) [260?]. Obv: no name (sic!). The first issues by al-Muʿtamid always bear the name of his son, Jaʿfar, on the obverse. The mintname on the photo is obscure, but would perhaps be legible if the coin itself could be examined. However, the mint is perhaps Samarqand, which would explain the remarkable absence of a name (Jaʿfar would be expected in the first place) below on the obverse. The only possible date would then be 260/873-74. Rev: *al-Muʿtamid ʿalâ llâh*. 1.163 g, -mm, 345º, fragment (<1/2). No. 165 (2001).

92 870-81 mint? [257-67] or [Panjhîr, Andarâba, Balkh] [c.260]. 1.538 g, – mm (calculated diameter: 20), --º, fragment (<1/2), 1 nick. The small module and thick flan are qualities that suggest an attribution to an Abbasid/Saffarid series of coins struck in the mints of Banjahîr (Panjhîr), Andarâba or Balkh in Afghanistan. The first possible date would be 257 or 258, but they are very rare. The date 260/873-74 is the first date to be met normally. No. 159 (2001).

Imitations

Unknown origin (Khazar khaganate?)

93 830s mint? Year? 0.524 g, -mm, 90º, fragment (<1/4). Dateable to *c*.223 AH. No. 100 (1999).

Unknown origin (Caucasus?)

94 860s mint? Year? 2.000 g (sic!), 22 mm, 180º, whole. The same die on both sides. Dateable to *c*. 250-55 AH. No. 72 (1999).

95 860s mint? Year? 0.974 g, -mm, --º, fragment (>1/4). Reverse corroded and illegible. Dateable to *c*. 250-55 AH. No. 93 (1999).

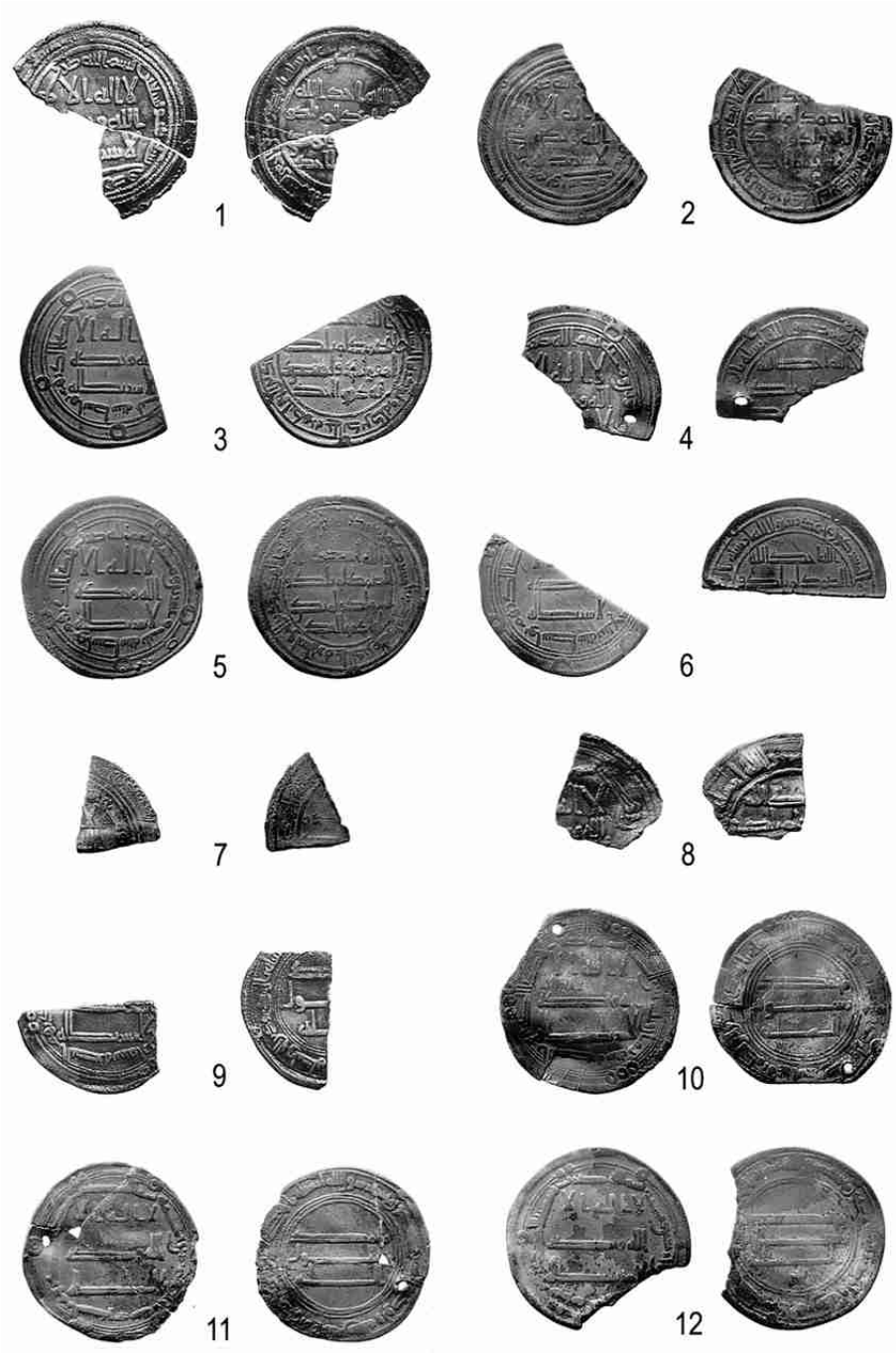

Figure 14.1. Westerklief II: Arabic coins nos. 1-12, scale 1:1 (photographs Geldmuseum, Utrecht, processing Anneke Dekker).

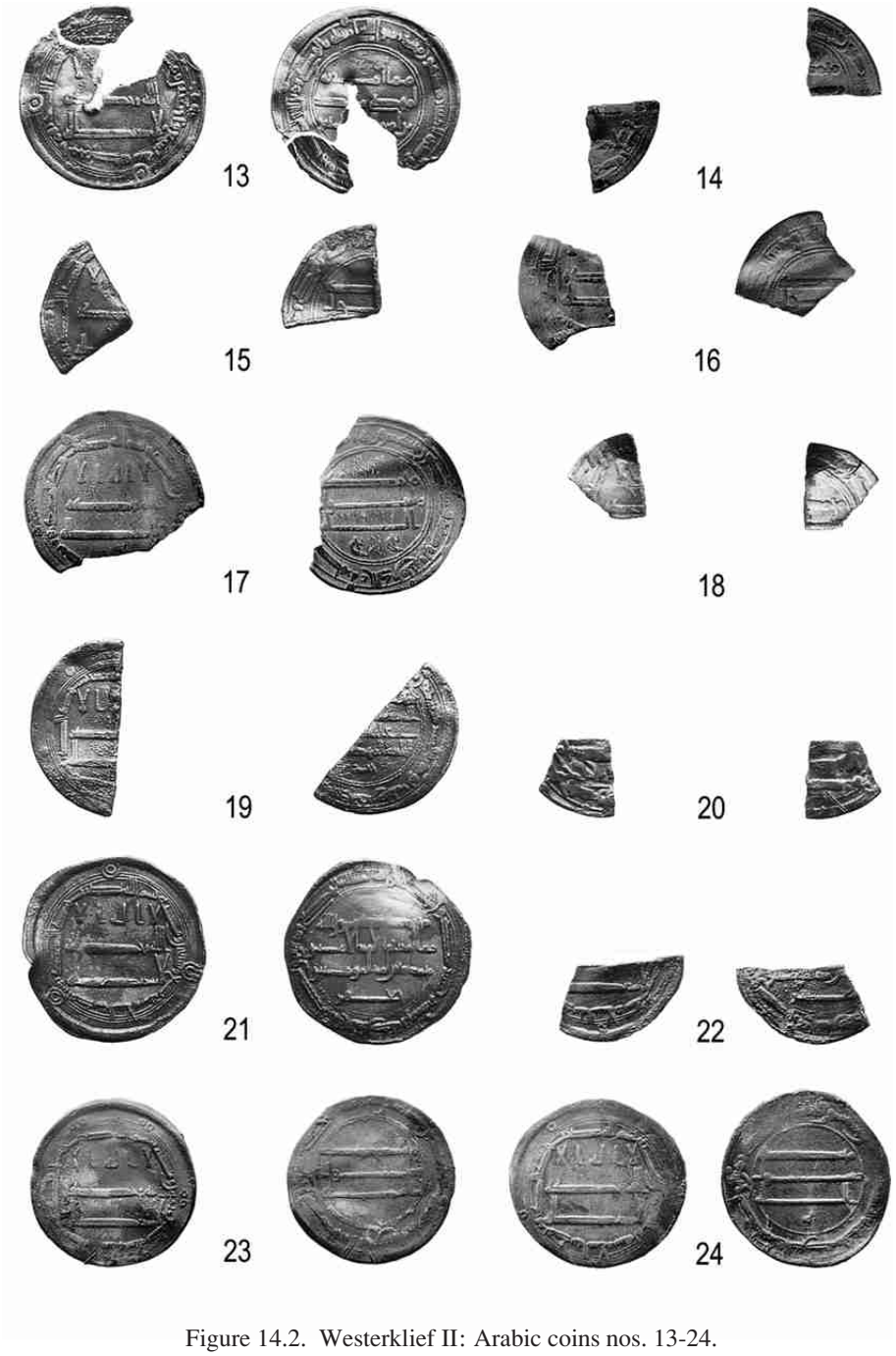

Figure 14.2. Westerklief II: Arabic coins nos. 13-24.

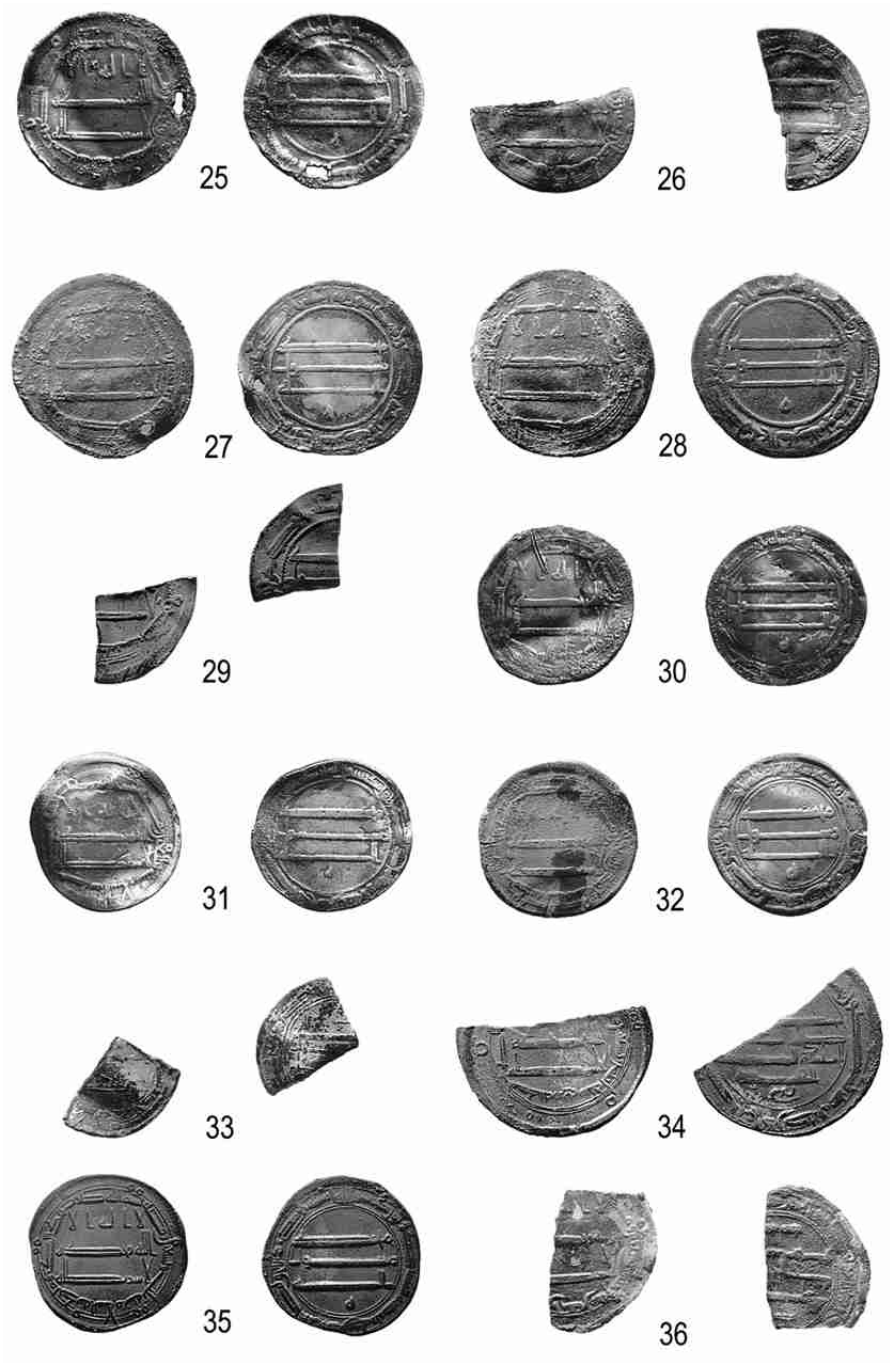

Figure 14.3. Westerklief II: Arabic coins nos. 25-36.

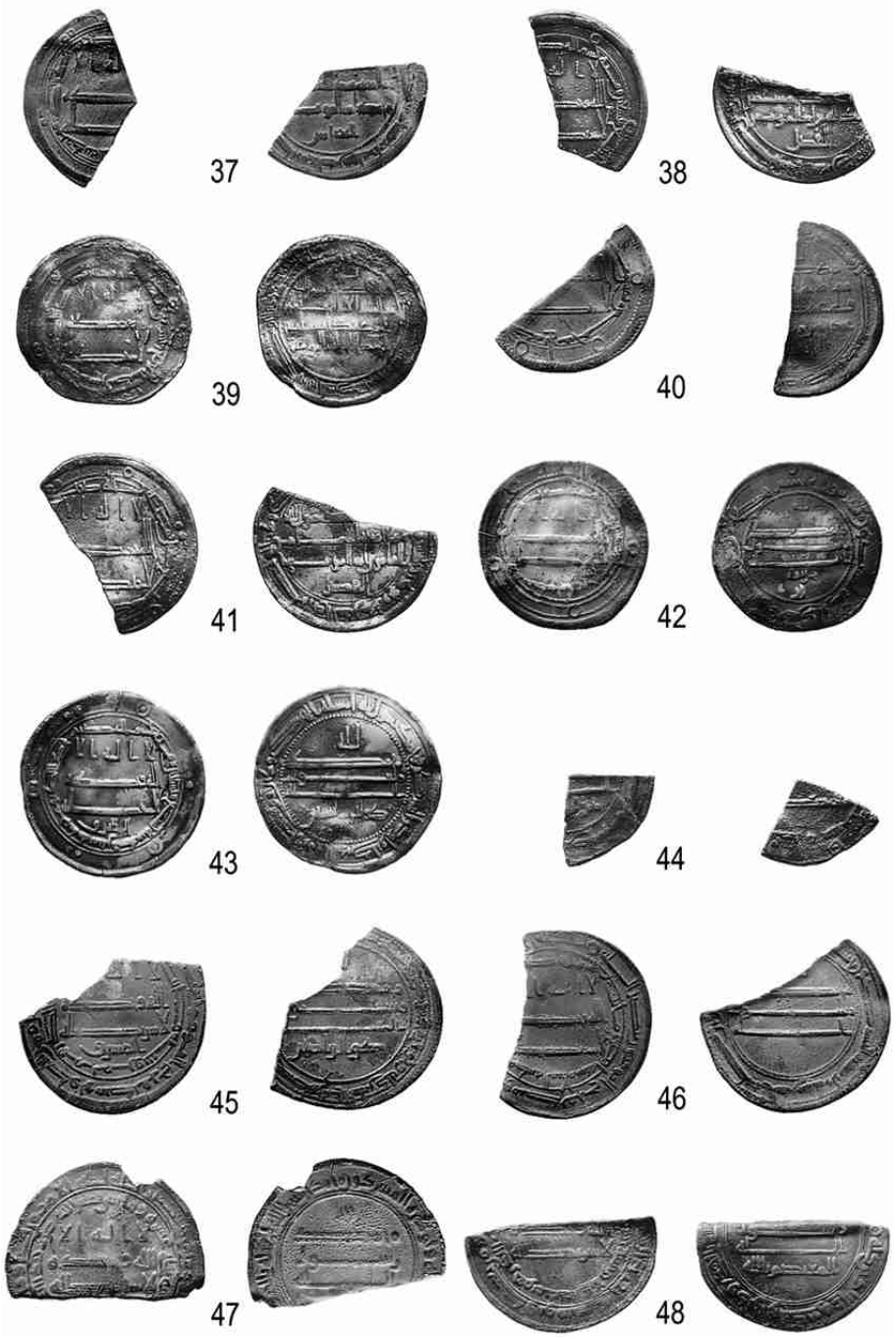

Figure 14.4. Westerklief II: Arabic coins nos. 37-48.

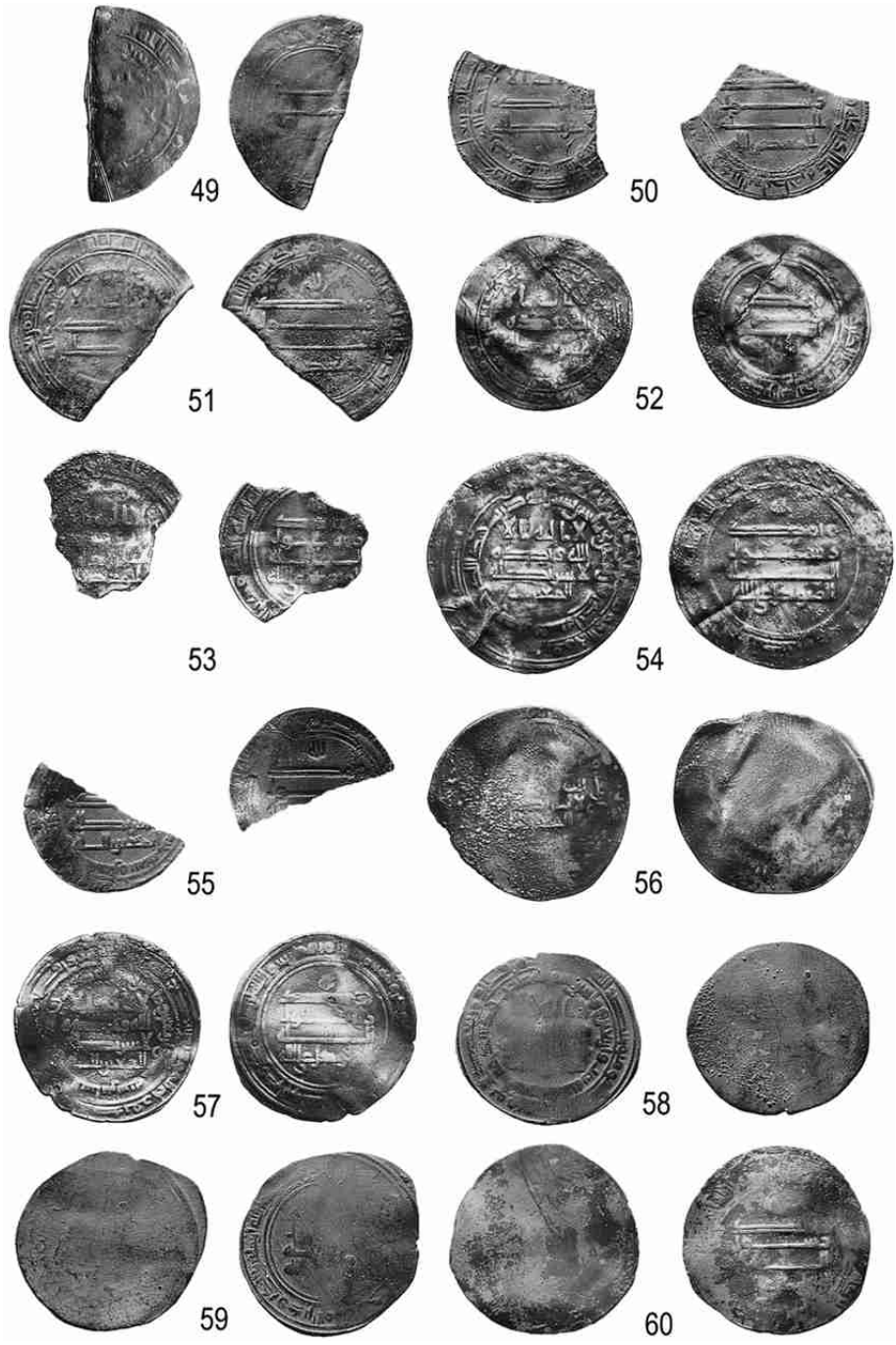

Figure 14.5. Westerklief II: Arabic coins nos. 49-60.

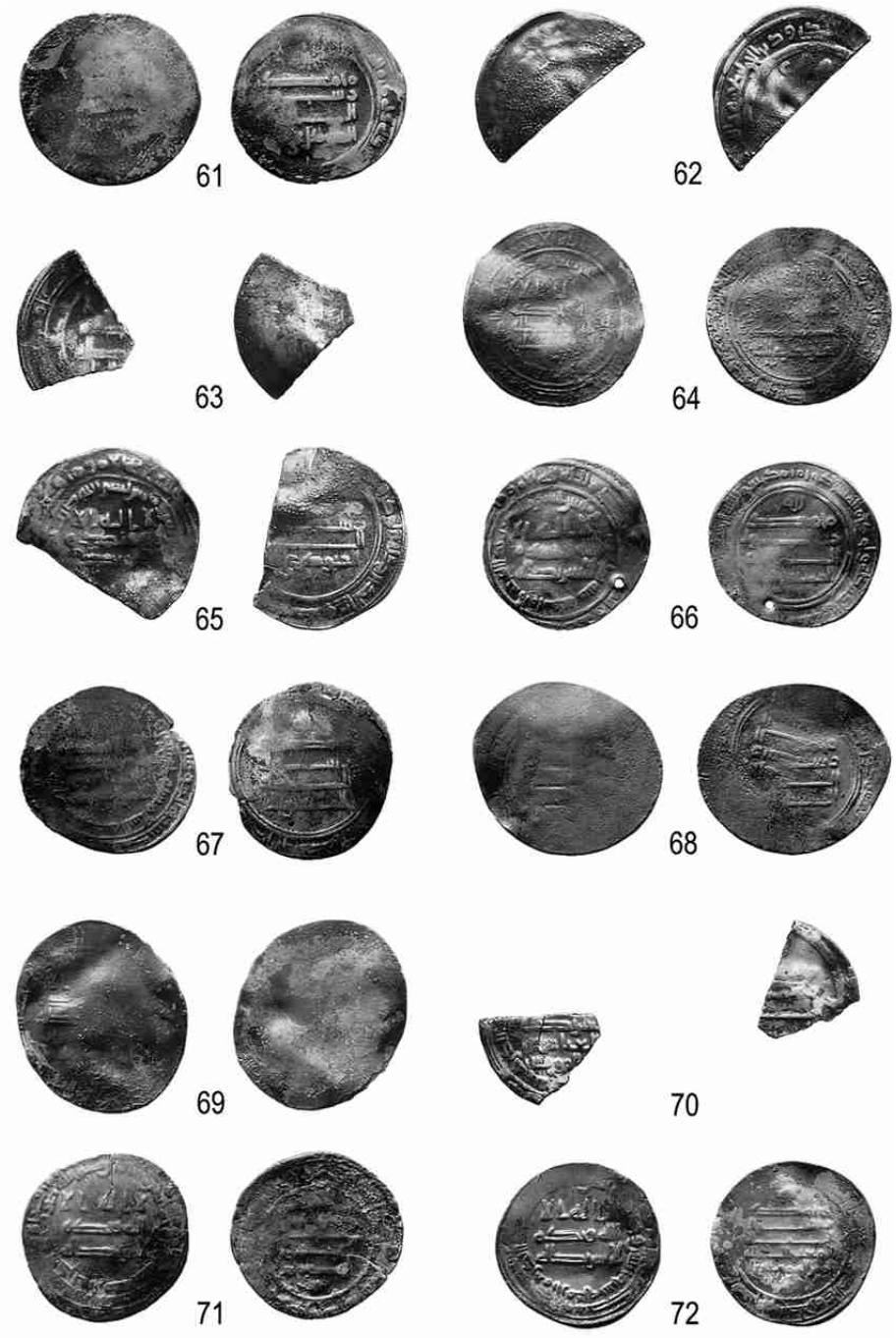

Figure 14.6. Westerklief II: Arabic coins nos. 61-72.

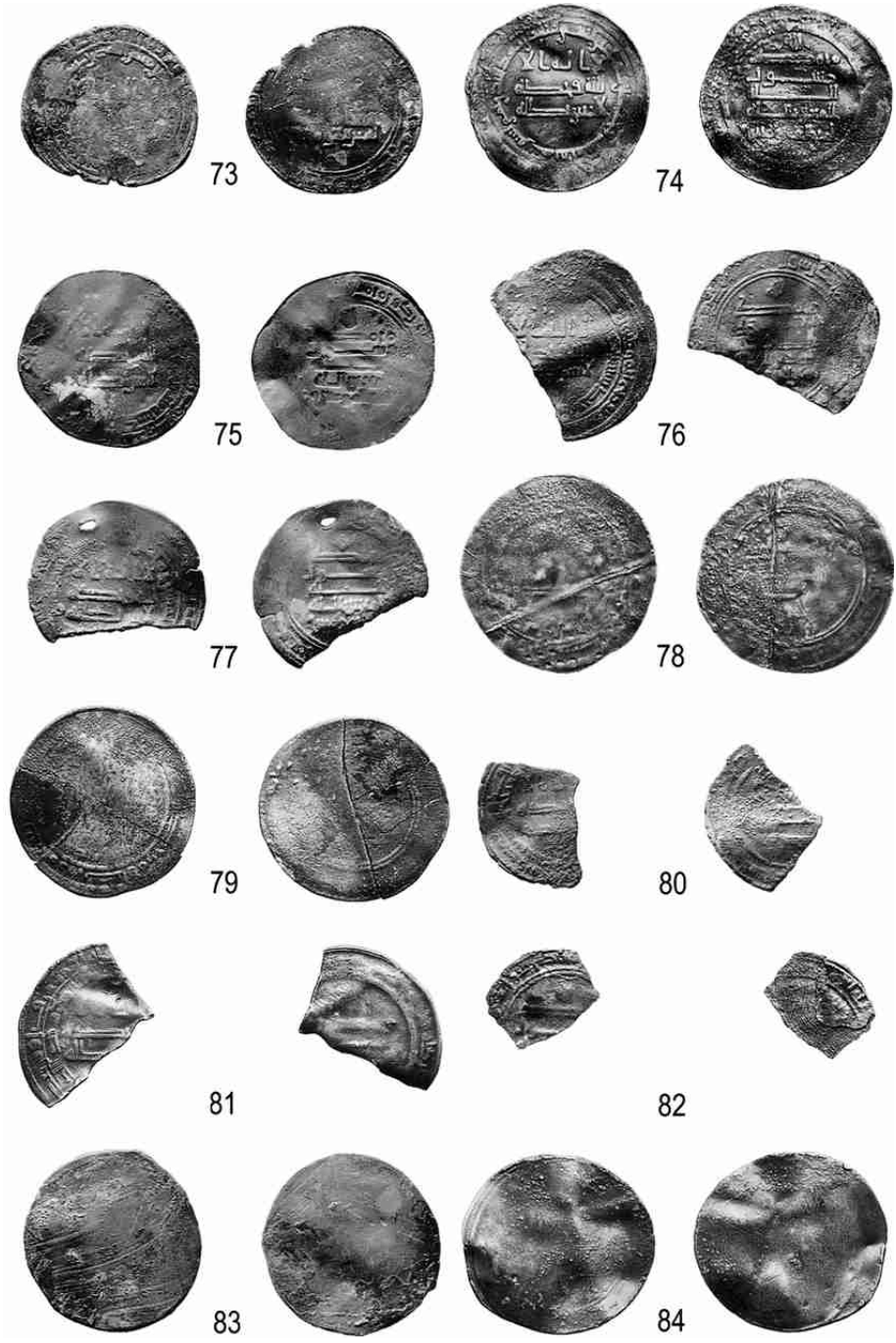

Figure 14.7. Westerklief II: Arabic coins nos. 73-84.

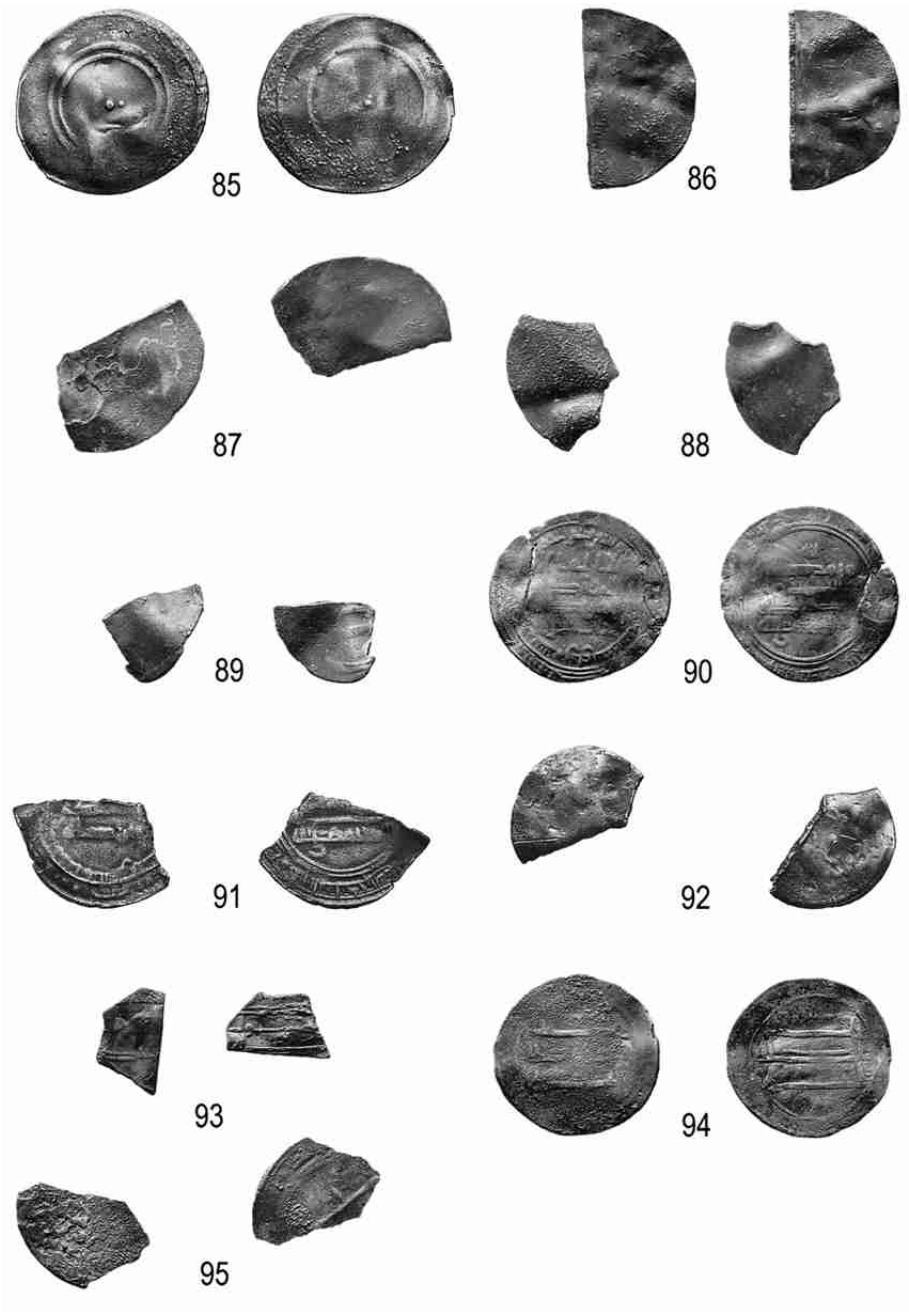

Figure 14.8. Westerklief II: Arabic coins nos. 85-95.

4.5. The Carolingian coins in Westerklief II (figs. 15 nos. 1-38)

BY SIMON COUPLAND

Apart from the imitation coin mounted in the brooch, Westerklief II contains 38 Carolingian coins, weighing 51.19 g altogether. Before we turn to a detailed discussion of the individual coins, it is worth pointing out that a number are of particular interest in their own right. These include a previously unknown coin of Louis the Pious from Cologne, which thereby represents a new name on the very select list of mints known to have produced mint-signed temple coinage at the end of Louis's reign. There is also a very rare die-linked pair of coins, one struck with a mint-name on the reverse and the other bearing the anonymous legend *Christiana religio*. Equally unusual is the fact that these two coins appear to have been contemporary forgeries, struck at an unofficial atelier somewhere in Frisia. This is also true of a *Christiana religio* coin of Lothar I, and we may wonder whether the presence of these forgeries is linked with the fact that this is almost certainly a Scandinavian hoard deposited in a region which was at the time held in benefice by Viking chiefs. The Vikings are well known for their resourcefullness; the Westerklief II hoard raises the possibility that this may have extended to their establishing unofficial mints in their Frisian territories.

LOUIS THE PIOUS (814-840)
Class II, with mint name in field, 819-822/3
1. *Denarius*, Bourges, 1.633 g, 130° (photo ref. 24)
Obv: +HLVDOVVICVSIMP, cross.
Rev: BITV/RIGES, point at centre.
These coins are not at all uncommon, 127 having been present in the hoard from Apremont-Veuillin (Duplessy 1985 no. 17; Haertle 1997 no. 2). They have also turned up in the north before, in the second hoard found at Wijk-bij-Duurstede in 1972 (two deniers) (van Gelder 1980). What is unusual, however, is to find these early issues in such a late hoard, since the vast majority of Louis's Class II issues were removed from circulation in an effective recoinage in 822-3, as their virtual absence in hoards from the 830s and 840s reveals.

Class III, *Christiana religio* type, 822-840
2. *Denarius*, 1.300 g, 190° (photo ref. 26).
Obv: +HLVDOVVICVSIMP, cross with pellets.
Rev: XPISTIΛNΛRELIGIO, temple.

3. *Denarius*, 1.544 g, 150° (photo ref. 31).
Obv: +HLVDOVVCVSIMP, cross with pellets.
Rev: +PISTIANARELIGIO, temple.

4. *Denarius*, 0.598 g (fragment), 220° (photo ref. 136).
Obv: […]VDOV[…], cross with pellets.
Rev: +P[…]O, temple.
These anonymous coins of Louis the Pious remained in circulation long after they were minted, and there is no reason to believe that any of these three specimens is a posthumous issue. Unfortunately none can be linked with any known mint on stylistic grounds.

Mint-signed temple coinage, 839-840.
5. *Denarius*, Cologne, 1.509 g, 35° (photo ref. 35).
Obv: +LVDOVVICVSREXMPI (MP ligatured), cross with pellets.
Rev: COLONNECIVITAS, temple.
As has been noted, this coin adds a fourth mint to the very short list of those known to have produced mint-signed temple coinage in the last year or so of the reign of Louis the Pious, in the late 830s. A second such coin, reading LVDOVVICVSREXIMI, has since been discovered as a single find in Thuringia[5]. Coins of Dorestad have previously turned up in the hoards found at Yde, Pilligerheck, and Tzummarum II (1991)[6]. The Pilligerheck hoard also contained a unique comparable coin of Maastricht, while the Tzummarum II hoard included an equally unique coin from Verdun[7].
The title is unusual and unexpected, in that because Louis bore the imperial title, imperator, he was not normally referred to as king, rex. It is, however, paralleled on coins struck at Cologne under Lothar I, which read (at best) +LOTHΛRIVSRI+I+PI *(Lotharius rex impe[rator])* (Coupland 2001, 171-172).
It is noteworthy that all four of the mints which struck mint-signed temple coinage at the end of Louis's reign lay in the future territory of Lothar I. They are not all stylistically similar, so that it does not appear that we have a single 'rogue' die-cutter. On the contrary, at Dorestad, Verdun and now Cologne there are clear stylistic similarities with the mint-signed temple coinage struck at these mints by Lothar after his accession. They are not geographically close to one another, nor is there any obvious reason why they should have formed any sort of group prior to the territorial settlement between Lothar and his brothers

5 Many thanks to Peter Ilisch for information about this find.
6 Yde (formerly Ide): van Gelder 1965, no. 2; Piligerheck and Tzummarum II have not yet been fully published.
7 The latter is illustrated in Coupland 2001, pl. 36.17.

in 843. Perhaps this is simply chance; perhaps other mints striking this coinage outside the future Lotharingia will be discovered.

6. *Denarius*, Dorestad, 1.400 g (damaged), 90° (photo ref. 139).
Obv: +[…]OVVICVSMVR, cross with pellets.
Rev: DORE[…]TΛ[…]MON, temple.
As was noted under the previous entry, this mint-signed temple coinage of Louis the Pious is rare, and only three comparable specimens have previously been discovered. However, those three coins are all of a similar style, but none of them resembles this coin on either face. What is more, the style of those coins resembles that of Lothar's mint-signed temple coinage from Dorestad, whereas this does not. If that raises the suspicion that this coin may be a contemporary imitation, this is strengthened by the remarkable fact that the hoard contains a blundered *Christiana religio* coin of Louis the Pious (no. 7 below) which was struck from the same obverse die. That such a die-pair should remain together in circulation for forty years before being deposited in a hoard is highly unlikely, and an indication that these two coins were almost certainly put aside as savings earlier than the 870s, when the Westerklief II hoard took its final shape.

Imitation *Christiana religio* coinage
7. *Denarius*, 1.751 g, 170° (photo ref. 133).
Obv: +HLVDOVVICVSMVR, cross with pellets.
Rev: +[…]IΛNΛPIIIↃIO, temple.
The obverse of this coin was struck from the same die as the mint-signed coin of Dorestad (no. 6), and the pattern of wear indicates that the Dorestad coin was minted first. Although the coin itself is more damaged, the die is crisper and less worn: see, for instance, the small defect at the foot of the letter I. This is further evidence that the two coins are irregular issues, since there is every reason to believe that under Louis the Pious, the mint-signed coinage was produced after the anonymous *Christiana religio* issue, and not the other way round.

8. *Denarius*, 1.544 g, 340° (photo ref. 134).
Obv: +HVIↃOV[…]IↃVSINP, cross with pellets.
Rev: OIV[…]IP[…]IΛIPOM+, temple.

9. *Denarius*, 1.636 g, 270° (photo ref. 25).
Obv: +IИVMOMVIↃIXIꟼSΓIↃI, cross with pellets.
Rev: +PISTD+PEVMↃIIO, temple.

10. *Denarius*, 1.642 g, 350° (photo ref. 27).
Obv: +PIMSVↃNTΛMOIÞII, cross with pellets.
Rev: +PISMVMEVIIↃPO, temple.
These three coins form a distinct group, with more debased legends and slightly larger flans than the previous coin. Even so, with a diameter of 21.5 to 22.5 mm they are not as large as the definite issues of Louis II which are present in the hoard, which have a distinct rim around the outer beaded circle (nos. 33-34 below). They are unlike the *Christiana religio* issues of Louis the Pious found in large numbers in hoards from the 830s-850s such as those from Hermenches, Pilligerheck, Emmen and Roermond, and should thus be seen as either the products of an unofficial mint or perhaps as the barbarous issues of an unskilled die-cutter in the early years of Louis II in Italy.

Pippin II (840-845)
Mint-signed coinage.
11. Aquitania *obolus*, 0.684 g, 195° (photo ref. 23).
Obv: +DIDDINVSRE+, cross.
Rev: AQVI/TANIA
These oboles, or half-deniers, are by no means uncommon outside Aquitaine, where they were minted, and have been found in not insignificant numbers in the north. They were, for instance, present in the hoards found at Ekeren, Muizen, Pilligerheck, Raalte, Roermond, Roswinkel, Wagenborgen and Zelzate, as well as singly at Domburg (two), Elst, Maren and Wijk-bij-Duurstede (Coupland 1989, 222, Coupland 2007, Addenda and Corrigenda 4; Haertle 1997 nos. 579 and 662).
Although Pippin's *Aquitania* oboles were apparently minted at Bourges or Bordeaux (Coupland 1989, 204-207), the finds listed above shows that they circulated widely, and this particular specimen could have been acquired by the owner in the north. They were not in circulation at the same time as the coin of Louis the Pious from Bourges in the hoard (no. 1 above), and there is no reason to think that the two should be linked.

Lothar I (840-855)
Mint-signed coinage.
12. *Denarius*, Milan, 1.121 g, 120° (photo ref. 20)
Obv: +HLOTHARIVSIMP, cross.
Rev: MEDIOLA
Worn. HL-ligature, ME ligature, LA ligature.

13. *Denarius*, Milan, 1.362 g, 310° (photo ref. 38)
Obv: +HLOTHARIVSIMP, cross.
Rev: […]EDIOLA
Very worn. HL-ligature, ME ligature, LA ligature.

14. *Denarius*, Milan, 1.227 g, 330° (photo ref. 131)
Obv: +HLOTHNRIVSIMP, cross.
Rev: MEDIOLA
HL-ligature, ME ligature, LA ligature. Obverse legend not aligned with central cross.

15. *Denarius*, Milan, 1.356 g, 275° (photo ref. 132)
Obv: +HLOTHARIVSIMP, cross.
Rev: MEDIOLA
Worn. HL-ligature, ME ligature, LA ligature.These Milanese coins of Lothar I have not turned up in large numbers, although that may well reflect the dearth of southern hoards from this period. A hoard from Lauterach in Switzerland contained sixteen, the largest number ever found in a single hoard, otherwise there were twelve in the Roermond hoard, just one at Pilligerheck and one apiece at Raalte and Wagenborgen. There are also four published single finds, three from Switzerland and one from eastern France (Coupland 2001, 176-178, Coupland 2007, Addenda and Corrigenda 3; Moesgaard 2002). They were almost certainly produced during the whole of Lothar's reign, between 840 and 855, and the degree of wear suggests that these particular specimens had been in circulation for quite some time.

16. *Denarius*, Dorestad, 1.520 g, 265° (photo ref. 39)
Obv: +HLOTHΛRIVƧHRIEPΛ, cross.
Rev: DOR/ES.TΛ/TVS.
TH-ligature.

17. *Denarius*, Dorestad, 1.575 g, 265° (photo ref. 32)
Obv: +HLOTHΛRIVƧHRIEPΛ, cross.
Rev: DOR/ES.TΛ/TVS.
TH-ligature. Same obverse and reverse dies as 16, though obverse slightly double struck. Worn.

18. *Denarius*, Dorestad, 1.388 g, 265° (photo ref. 123)
Obv: +HLOTHΛRIVƧHRIEPΛ, cross.
Rev: DOR/ES.TΛ/TVS.
TH-ligature. Same obverse die as 16 and 17.

19. *Denarius*, Dorestad, 0.907 g (two fragments), 345° (photo ref. 129)
Obv: +HL[…]VƧHRIEPΛ, cross.
Rev: DOR/[…].TΛ/[…]VS.
TH-ligature. Same obverse die as 16, 17 and 18. Coin in very poor condition, as well as being broken and in two pieces.

20. *Denarius*, Dorestad, 1.318 g, 265° (photo ref. 30)
Obv: +IILOTIΛIIVSIIIEIIΛ, cross.
Rev: DOR/ES.TΛ/TVS.
Obverse V is inverted A.

21. *Denarius*, Dorestad, 1.390 g, 265° (photo ref. 33)
Obv: +IILOTIΛMVSIIIEIIΛ, cross.
Rev: DOR/ES.TΛ/TVS.
Obverse V is inverted A. Same obverse die as 20.

22. *Denarius*, Dorestad, 1.536 g, 255° (photo ref. 128)
Obv: +IIOTIΛIIVSIIIEIIΛ, cross.
Rev: DOR/ES.TΛ/TVS.
Crescent on the final Λ. Same reverse die as 20.

23. *Denarius*, Dorestad, 1.364 g, 80° (photo ref. 124)
Obv: +[…]OTHΛIIVƧIIPIEIΛ, cross.
Rev: DOR/ES.TΛ/TVS.
TH-ligature, crescent on the final Λ. Same reverse die as 21, though slightly misstruck.

24. *Denarius*, Dorestad, 1.541 g, 80° (photo ref. 37)
Obv: +HILOTH[…]RIVƧIHRERΛ, cross.
Rev: DOR/ES.TΛ/TVS.
TH-ligature.

25. *Denarius*, Dorestad, 1.401 g, 110° (photo ref. 34)
Obv: +IIIOTIΛIIVSIEΛ, cross.
Rev: DOR/ES.TΛ/TVS.

26. *Denarius*, Dorestad, 1.524 g, 350° (photo ref. 36)
Obv: +IIIOTIΛIIVSIIIEIIΛ, cross.
Rev: DOR/ES.TΛ/TVS.
Crescent on the final Λ.

27. *Denarius*, Dorestad, 1.567 g, 95° (photo ref. 126)
Obv: +IIIOTIΛIIVSIIIEIIΛ, cross.
Rev: DOR/ES.TΛ/TVS.
Crescent on the final Λ. Same obverse die as 26.

28. *Denarius*, Dorestad, 1.394 g, 85° (photo ref. 122)
Obv: +IIIOTIΛISIIIΛ, cross.
Rev: DOR/ES.TΛ/TVS.
Struck from very worn dies.

29. *Denarius*, Dorestad, 1.307 g, 265° (photo ref. 125)
Obv: +HLOTIΛIVSIIIIΛ, cross.
Rev: DOR/ES.TΛ/TVS.

30. *Denarius*, Dorestad, 1.569 g, 345° (photo ref. 127)
Obv: +IIOTHΛIIVƧIIPIEIΛ, cross.
DOR/ES.TΛ/TVS.
TH-ligature, crescent on the final Λ.

31. *Denarius*, Dorestad, 0.831 g (fragment), 0° (photo ref. 130)
Obv: […]IIIOTHΛIIVSI[…], cross.
Rev: DO[…] /ES.T[…]/TVS.
Same reverse die as 30.
The presence of sixteen of these coins in the hoard is significant, as we shall see. They have not been found in large numbers, almost certainly because they were only minted for a short period, *circa* 850-855 (Coupland 2001, 165-166, 173-175). To date, the largest finds are Tzummarum II, with twenty-six (alongside over 2,600 temple coins of Dorestad) and Raalte, with twenty-three, while sixteen were present at Roswinkel (alongside 103 Dorestad temple coins). Otherwise they have only been found in insignificant numbers (Coupland 1988, 25, Coupland 2007, Addenda and Corrigenda 6). What is particularly notable about this group of sixteen coins is that they were struck from just eleven obverse and twelve reverse dies, yet there are no apparent die-links between these coins and published specimens from other hoards and single finds. This suggests that they had not been in circulation over a long period when they were deposited, even though they were minted some twenty-five years before the hoard took its final form. Like the die-linked pair of imitation coins of Louis the Pious (nos. 6-7 above), this implies that we are dealing here with a so-called savings hoard, to which coins were added singly or in groups over time.

Christiana religio coinage.
32. *Denarius*, Group L (unofficial Frisian mint?), 1.648 g, 230° (photo ref. 135)
Obv: […]TΛ[…]ƧIPER[…] (retrograde), cross worn away.
Rev: +NSTIΛNΛPIEI[…]O, temple.
Although this coin is so badly worn that it is hard to distinguish more than a few letters of the obverse legend, it is in every respect comparable to one of the identifiable groups of Lothar's *Christiana religio* coins. One of these was a single find from somewhere in Groningen, there was probably one in the Lutkesaaxum hoard and no fewer than eleven were present in a hoard from Aalst (Noord-Brabant), none of them apparently struck from the same dies as this coin (Coupland 2001, 191, Coupland 2007, Addenda and Corrigenda 3). The coins are characterised by their very debased retrograde obverse legends and blundered but consistent reverse inscriptions. That they were struck during Lothar's reign is evident from their presence at Lutkesaaxum, though it is unlikely that they were produced at any of his official mints. The presence of eleven such coins, struck from so many different dies, at Aalst indicates that they were the products of an unofficial mint somewhere in that region.

Louis II (855-875)
Christiana religio coinage.
33. *Denarius* (broad flan), 1.506 g (damaged), 50º (photo ref. 59).
Obv: +HLVDOVVICVSIMP, cross with pellets.
Rev: XPISTIANAREL[I]CIO, temple.

34. *Denarius* (broad flan). Two small fragments, probably from the same coin, 0.370 g (photo refs. 137-138).
Obv: HLV[…]S•IM[…]
Rev: […]PIS[…]CIO.
These broad-flan *Christiana religio* coins of an emperor Louis can confidently be attributed to Louis II, who reigned in Italy from 855 to 875. They are not at all common: Morrison and Grunthal (1967) unaccountably omitted them, but there is one in the Grierson collection: *MEC* 1.1008 (Grierson and Blackburn 1986). Only one other specimen of Louis II's Italian coinage is recorded from the north, in the early tenth-century hoard from Assen (Coupland 2006, 253).
Grierson showed that there are certain stylistic features which permit the attribution of later Italian *Christiana religio* coins to either Milan or Pavia, and went on to suggest that the presence of some of these features may allow us to attribute these earlier coins in the same way (Grierson 1978; Grierson and Blackburn 1986, 252-253). However, it should be noted that the coins of Lothar

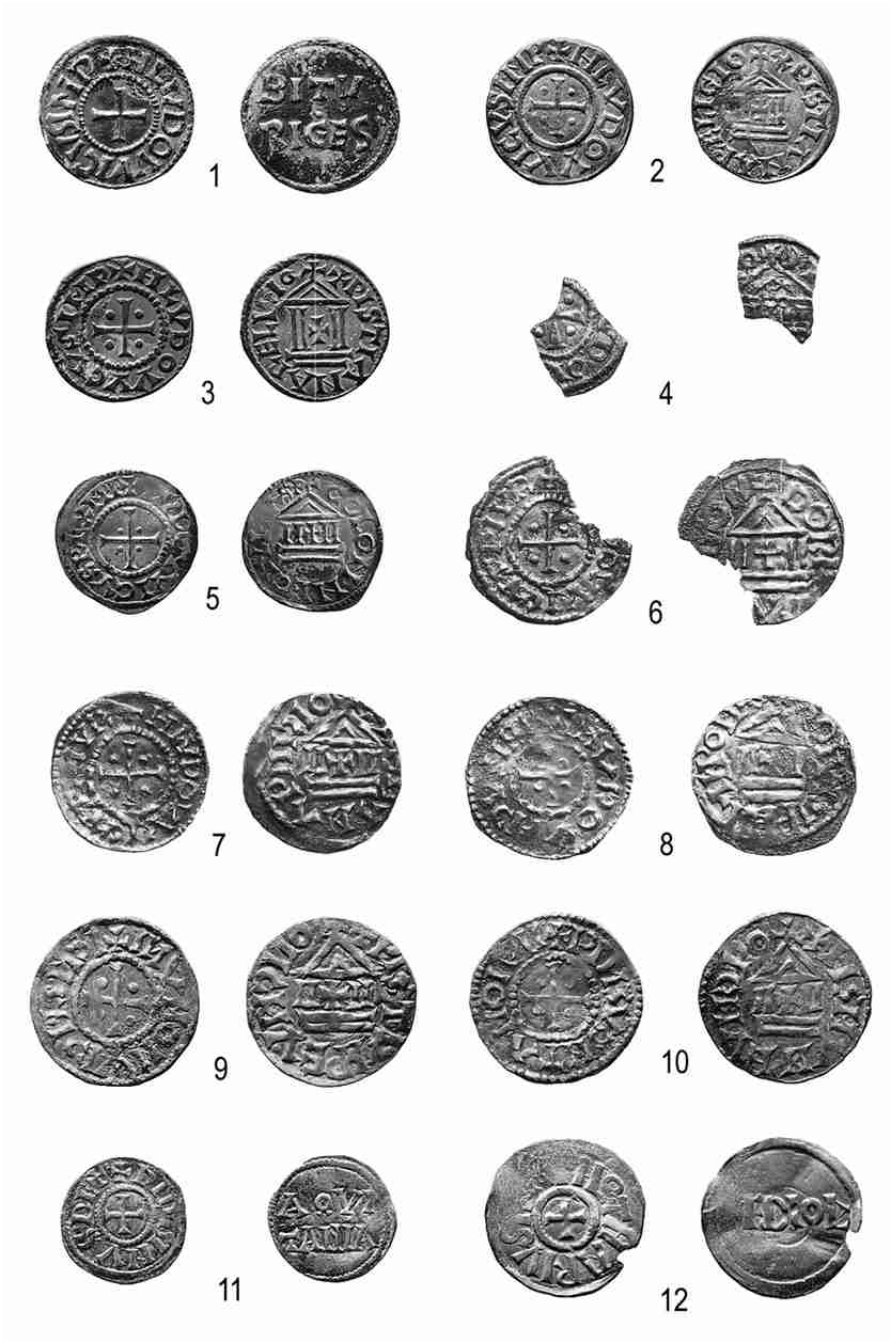

Figure 15.1. Westerklief II: Carolingian coins nos. 1-12, scale 1:1 (photographs Geldmuseum, Utrecht, processing Anneke Dekker).

Figure 15.2. Westerklief II: Carolingian coins nos. 13-26.

Figure 15.3. Westerklief II: Carolingian coins nos. 27-38.

I from Milan and Pavia have very different distinguishing features, notably the use of an initial HL ligature at Milan but not Pavia and a TH ligature at Pavia but not Milan. Unlike the later coins, the As are barred at both mints, the difference being that the Milanese As are formed from two adjacent bars, not always meeting at the top, while those from Pavia take the usual form of a barred inverted V (Coupland 2001, 177 and pl. 37). Without further contemporary evidence it is therefore unwise to ascribe these coins of Louis II to any particular mint.

CHARLES THE BALD AS EMPEROR (875-877)

35. *Denarius* (broad flan), 1.650 g (incomplete, damaged), 260º (photo ref. 21).
Obv: +HCAROLVSIMPER, cross with pellets.
Rev: +XPISTIANARELICIO, temple.

36. *Denarius* (broad flan), 1.516 g (incomplete, damaged), 295º (photo ref. 22).
Obv: +[…]CAROLVSIMPER, cross with pellets.
Rev: +XPISTIANARELIGIO, temple.

37. *Denarius* (broad flan), 1.682 g (incomplete, damaged), 130º (photo ref. 140).
Obv: +HCAROLVSIMPERΛ, cross with pellets.
Rev: +XPISTIANARELICIO, temple.

38. *Denarius* (broad flan), 0.708 g (two fragments), 5º (photo refs. 28-29).
Obv: +HC/ARO[…], cross with pellets.
Rev: […]ARELI/CIO, temple.

These broad-flan coins are undoubtedly Italian, and were almost certainly struck by Charles the Bald in the last two years of his reign, when he held the imperial title. Although Charles the Fat struck similar broad-flan Italian issues between 881 and 887, they were even larger, some 30 mm in diameter, while these specimens are only circa 26 mm. They are nonetheless still the latest coins in the hoard. Although they have the initial H and barred As which were said by Grierson to be typical of Charles the Fat's anonymous coinage from Milan (Grierson and Blackburn 1986, 250-253), the caveat offered above about the lack of contemporary comparative material for attributing the coins of Louis II also applies here, and it would be rash to offer more than a tentative attribution.

These Italian coins of Charles the Bald are rare, for although broad-flan *denarii* of an Emperor Charles have been found in certain other northern hoards, the great majority should be attributed to Charles the Fat. This is true of all the coins from Zuidbarge, for instance, which were at least 30 mm in diameter,

and those from Assen, which were on average 31 mm[8]. At Zuidlaren, one of the coins can be attributed to Charles the Bald (alongside two of Charles the Fat), while the hoard from Marsum also included a single broad-flan imperial coin of Charles the Bald, an attribution consistent with the early date of the other coins present[9].

The presence of these Italian coins in late ninth-century northern hoards is of particular interest, as they are not found in West Frankish hoards except in the far south, indicating that they were not reaching Frisia from Charles the Bald's kingdom. This rupture between north and south is further demonstrated by the absence of Charles's *Gratia Dei rex* [GDR] type at Westerklief II, despite the fact that it was being minted on a large scale in the West Frankish territories, to judge from the evidence of numerous sizeable contemporary hoards. This presumably reflects Frisian trade with Italy, probably via the Rhine, where the early tenth-century Lauterach hoard from Switzerland similarly consists of exclusively Italian coinage. The Carolingian coins in Westerklief II represent one of the first witnesses to this changing economic pattern (Coupland 2006, 252-253). We might also note that the absence of the *Gratia Dei rex* coinage demonstrates beyond doubt that if the final owner of the coins was, as seems virtually certain, Scandinavian, his parcel of Frankish coins did not represent the spoils of Viking raids on the West Frankish kingdom in the preceding decade, but was acquired locally.

From this survey, two features stand out above all about the assemblage of Carolingian coins in Westerklief II. The first is the unusually wide span of dates of the coins, which originate from a number of different mints (Table 4). The Frankish component of Westerklief II appears to be a so-called 'savings hoard', one which has been put together over time, with extra coins added to it singly or in groups at intervals. One indication of this is the fact that the most recent coins, the *Christiana religio* issues minted in Italy, represent only a fraction of the hoard. The bulk of the coins date from some quarter of a century earlier, whereas we would normally expect the most recent coins in a hoard to be in the majority. The detailed analysis also revealed that some of the older coins had not circulated for a long period, including the sixteen coins of Lothar I from Dorestad and a die-linked pair of coins struck in the name of Louis the Pious. These factors suggest that the hoard consists of a number of small parcels of coins deposited over a lengthy period. This feature

8 *Revue Belge de Numismatique* 1860, 321-322 ('toutes ces monnaies sont du module de 30 à 34 millimètres'); Boeles 1915, 72, 76; *contra* Haertle 1997, 221, 880.

9 Zuidlaren: Haertle 1997, 98/001 (26mm), 98/002 (32.5mm), 98/003 (32mm). Marsum: Boeles 1915, 96 (25mm); Haertle 1997, 78/11.

is paralleled in other late ninth-century Frisian hoards (though not, it should be noted, in West Frankish hoards of this period), and almost certainly reflects a decline in the silver stock in the north at this time (Coupland 2006, 260-262).

Table 4. Carolingian coins: Mint place and attribution to the various Carolingian rulers.

Mint name	Louis the Pious 814-840	Pippin II 840-845	Lothar I 840-855	Louis II 855-75	Charles the Bald 875-877
XR type	7		1	2	4
Bourges	1				
Cologne	1				
Dorestad	1		16		
Aquitania		1			
Milan			4		

The second feature is the large number of coins which are, to say the least, irregular, and which are most likely contemporary forgeries. This is extremely unusual, and matched only by the Aalst hoard from the reign of Lothar I, and of course by the imitation gold *solidi* which have been found in large numbers as stray finds but also in numbers in two hoards, at Voorhout and Marsum (Coupland 2006, 254-255). This may represent another sign of the shortage of silver in the north at this time, but it may also indicate that Scandinavians who colonised this region in the mid-ninth century began striking imitation Frankish coinage, as we know they did across the English Channel a little later.

5. Date and origin of Westerklief II by Jan Besteman

As to the origin of the non-numismatic silver, there is little uncertainty. The silver ingots, intact or fragmented, point to a northerly origin with a preference for Denmark, based on their similarity with ingot moulds and sizes from Hedeby and Schleswig-Holstein (Hårdh 1996, 143 and Wiechmann 1996, 66-7). The same applies to the fragments of ornaments, as far as these can be identified, on the basis of the fastenings of neck-rings found, a type which mainly occurs in Denmark (Hårdh 1996, 157).

The deliberate fragmentation of the silver is an important indication of Scandinavian use, as are other traces of use. Hacksilver is predominant in the silver hoard and is an undisputed feature of Scandinavian silver from the late ninth and tenth century. Hårdh (1996, 123) has investigated the degree of fragmentation in Danish hacksilver hoards and concluded that the earliest intensive use of hacksilver is observed in Denmark.

The Arabic coins in Westerklief II were undoubtedly transported from the Near East via Russia to Scandinavia. Not only are Arabic coins extremely rare within the Carolingian empire, but also the composition of the Westerklief coins does not differ from that in Scandinavian hoards. Arabic coins are very numerous in tenth-century hoards, but are rather uncommon in those before the last decades of the ninth century, with the exception of the Gotland hoards of which the recent Spillings hoard with 70 kg silver is the most impressive and appears to be contemporaneous with Westerklief II (see Gert Rispling's list of contemporaneous Scandinavian hoards above)[10]. He observes that the nicks on the coins are an early feature, which mainly occurs, in early ninth-century hoards. On the basis of these observations we can classify Westerklief II as a Scandinavian silver hoard with a preferably Danish origin.

The coin brooch poses problems. Gold coins with the bust of the ruler in the style of a Roman emperor have been struck in small numbers after the coronation of Charlemagne as an Emperor in 800 and more under Louis the Pious. They may have functioned as an imperial gift to high-ranking aristocrats and foreign relations rather than as currency (Wamers 2005, 76-77). They became extremely popular in Frisia were more and more debased imitations of them appear. It is obvious that these were simply used in the Frisian economy and the contacts with the north, but some of its function as a Carolingian and decorative token may have remained as well, especially when incorporated in an ornament.

The cast imitation coin in Westerklief II as will almost all of them will be of Frisian origin, but the brooch may have been made by a Scandinavian craftsman. This is on the basis of its manufacture and the parallels in Scandinavia rather than the popularity of coin brooches, for the distribution of finds of these is nowhere as dense as in Frisia (Bos 2005-6 and forthcoming). However, Frisian finds of these brooches consist almost exclusively of bronze specimens cast in one piece. Even a gold coin ornament from Eindhoven-Blixembosch (province of Noord-Brabant) had been cast in one piece. An inventory by Bos and Zijlstra

10 For a survey of North, Central and Eastern European finds with Arabic coins see BRATHER, 1996, catalogue 124-146, which also indicates whether there were also ornaments present.

of finds of ninth-eleventh-century brooches in the province of Friesland produced no less than 177 specimens of imitation coin ornaments (Bos 2005-6 and forthcoming). The presence of half-finished products still with casting jets from the casting channels in the mould is not unusual and such an unfinished silver imitation coin brooch has also been found at Hippolytushoef on Wieringen and was apparently made there (collection Van Zoonen, Hippolytushoef). The similarity of manufacture of the Westerklief brooch to the gold coin brooch from Hedeby and other northern parallels may, however, point to a northern origin (Armbruster 2002, 110-4).

The only certainly non-Scandinavian element in Westerklief II is the Carolingian coins. As stated above, these were probably added to the Scandinavian ensemble in Frisia. This is supported by the date of the youngest Arabic coins which are a few years older then the youngest Carolingian coins, and by the absence of fragmentation. Moreover, Carolingian coins are very rare in Viking hoards whereas Carolingian ornaments regularly occur[11]. Apparently coins which were not used as a means of payment in Scandinavia were immediately melted down. Of the hoards containing more than ten Carolingian coins and therefore providing a reasonable possibility for dating, Sweden has only the Häljarp hoard with 30 deniers and ornaments[12].

The combination of Arabic and Carolingian coins in Westerklief II is also very unusual in ninth-century Scandinavian hoards. From Norway there is the exceptional Hon gold hoard (*c*. 852), with mainly ornaments, many of Frankish origin, and 13 gold coins all with loops. Sweden, however, has two hoards: Kettilstorp and Langhalsen. Outside Scandinavia, on the border of the Viking sphere of influence, there is the Croydon hoard (South London) from after 871/2, with some ingots and hacksilver and, apart from about 250 English coins, seven Carolingian and three Arabic coins. It is associated with the Vikings staying in their winter camps in London at that time (Graham Campbell 2005, 39-40). Within the Viking territory there are the spectacular, but much younger Cuerdale hoard from Lancashire, and the recently found hoard from Harrogate (North Yorkshire) both dated well into the tenth century and therefore not very comparable with Westerklief.

We may conclude that Carolingian coins are very rare in all Viking hoards. They therefore represent a non-Scandinavian element in the Westerklief II

11 Extreme examples are the Hon hoard (Buskerud (N) with mainly Carolingian gold ornaments and a.o. 13 gold coin pendants and the recent Duesminde hoard (Falster (Danmark)) with over one kilogram of Frankish ornaments (Wamers 2005, 129).

12 For a survey see Coupland 1985-6, appendix 1, 25-6.

Figure 16. The Westerklief I hoard
(photograph A. de Kemp, National Museum of Antiquities, Leiden).

hoard, and, unlike the Arabic coins, they are unfragmented, showing that they must have been added to the silver in Frisia.
Simon Coupland assumes that the Carolingian coins were brought together as a savings hoard in small parcels from about 840 onwards (see above). In that case it is likely that the Viking owner of Westerklief II, got hold of a Carolingian coin hoard which he added to his Scandinavian silver. The find circumstances make it clear that all the silver of Westerklief II had been put together in the small Badorf pot.
Due to the presence of both Arabic and Carolingian coins we have a double set of coin dates. The youngest Arabic coin dates from 871/2, or possibly from 873/4. The youngest Carolingian coin dates from 875-877. This means that the silver hoard has a tpq date of 875-77, making Westerklief II a very old and unique Viking silver depot to contain both Carolingian and Arabic coins and, moreover, mainly hacksilver (cf. Hårdh 1996, 157).

6. Comparison of Westerklief II and Westerklief I

Since all the silver in the Westerklief II find is of Scandinavian origin except for the Carolingian coins and possibly the coin brooch, one might well wonder whether the Westerklief I Viking silver hoard which was found in the same plot of land did not belong to the same hoard (fig. 16). However, it is virtually out of the question that the two finds should be regarded as a single silver hoard, or that they belonged to one and the same owner, for apart from their Scandinavian character, they have little in common. In the first place, the dates of both finds, based on the Carolingian coin dates, differ, the first being after *c*. 850 and the second after 875-877. Because the coins were probably added to the silver last, the second hoard will be over a quarter of a century younger than the first. The pottery containers in which the hoards were concealed provide a clear indication for two separate hoards. In both cases they are pots of Badorf ware, but the fragments found with the Westerklief II silver are from a much smaller pot of the Dorestad W IV type, with a neck diameter in this case of only 6.3 cm. If both silver finds did originate from one owner, the entire find was at any rate stored in two different pots. Nevertheless, the main argument for two separate silver hoards is the completely different composition of the two hoards, despite their unmistakably Scandinavian character (Table 5) and at first glance this is observable in the strikingly different distribution of weight in both hoards (fig. 17).

Table 5. Different composition and weights of the silver hoards Westerklief I and II.

	Westerklief I (tpq 850)			Westerklief II (tpq 875-7)		
	number	*weight*	*average weight*	*number*	*weight*	*average weight*
Scandinavian origin						
neck-ring	1	151.8	151.8			
arm-ring	1	67.7	67.7			
coin brooches	3	39.7	13.2	1	7.3	7.3
ingots	16	729.3	45.6	1	36.8	36.8
hacksilver				24	163.0	6.8
Arabic coins				42	114.7	2.8
Arabic coins (fragments)				53	84.0	1.5
Carolingian origin						
arm-rings	6	564.8	94.1			
strap-end	1	14.3	14.3			
coins	78	95.6	1.2	38	51.1	1.3
total	106	1663.2	15.7	160	456.9	2.8

Westerklief I consists for the most part of complete ornaments and unfragmented heavy silver ingots, while the Westerklief II find comprises mainly small and unfragmented objects such as hacksilver and coins. Of the uncoined silver, only the brooch and one silver ingot are complete. The ingot is light, weighing only 26 g and, given the diameters, even the fragments are mostly from small ingots in comparison with the ingots from the Westerklief I hoard which generally weigh *c*. 50 g. In addition, Arabic coins are prominent in Westerklief II, whereas, with the exception of the dirham and two Sasanian drachma in the coin ornaments, they are conspicuously absent in Westerklief I.

Differences can even be observed with regard to the Carolingian coins in both hoards, apart from those connected with the dates. The 38 Carolingian coins in Westerklief II are far more diverse, varying in age from 819 to 875-7, and they include a substantial number of imitations of regular coinage, especially those

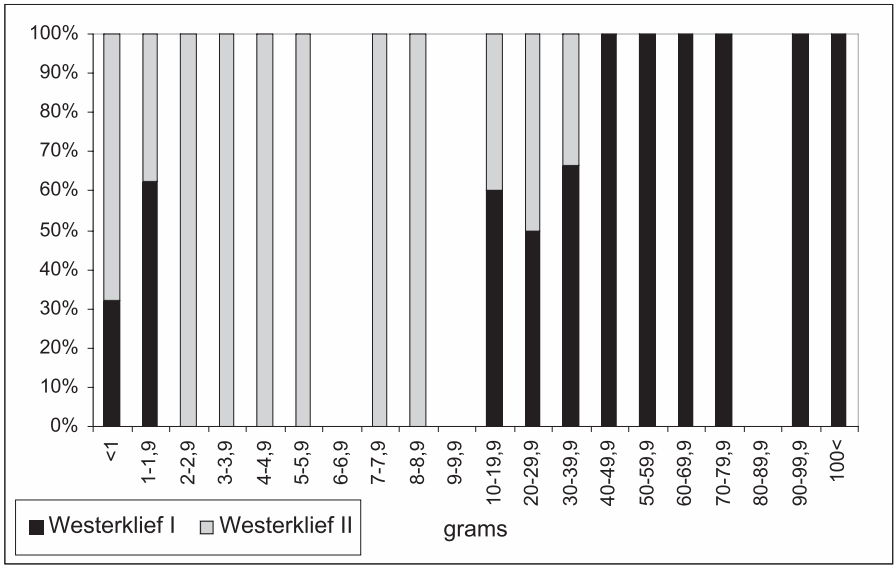

Figure 17. Westerklief I and II: Distribution of finds per weight category (proportional percentage).

ascribed to Louis the Pious (see above chapter 5 by Simon Coupland). The provenance of the regular coins points mainly to Dorestad, then Milan and Italy, with the odd older coin from Cologne, Aquitaine and Bourges. On the other hand, the 78 Carolingian coins from Westerklief I reveal a high degree of homogeneity: 76 of these coins belong to only two types, both *Christiana Religio* type in the name of Louis the Pious and Lothar I respectively, and both attributed to Dorestad. They are representative of the coin circulation customary in the region (Besteman 1997, 210-1). Two remaining coins (3%) are in the name of Charles the Bold with mint name in the field of Sens and XP-type ascribed to Tours, respectively. The diversity of the coins and the imitations in Westerklief II can partly be explained by the decline of official coinage in Dorestad and the increasing scarcity of coins after the middle of the ninth century, as a result of the mutual conflicts of the Carolingians and the Viking raids. The numerous imitations of Carolingian *denarii* which may have been struck somewhere in Frisia, whether or not with Viking involvement, by the Frisians themselves, who needed coins for their trading activities, and who had, of old, left their mark on coinage in the northern part of the Frankish empire with their coin imitations (tremisses of the Dronrijp type), their own silver coinage (sceattas), their *solidus* imitations and lighter deniers. Whatever the case may be, the differences in

composition of the Westerklief hoards mentioned above certainly make it clear that the two silver hoards, apart from both being Scandinavian, have little else in common, and must be regarded as two separate hoards. The fact that we have two Viking silver depots plus the fact that there are substantial differences between them is of major importance for their interpretation and significance, and this makes it essential that we interpret both Westerklief hoards collectively.

7. The Westerklief hoards in relation to Danish settlement in the Netherlands

The presence of Scandinavian silver appears to offer one of the few archaeological indications for Viking settlement in Frisia. Typical Scandinavian hoards are not found far beyond areas in which the Vikings settled (Moesgaard in press). The same applies, though to a lesser extent, to many objects of precious metal associated with Scandinavia. The distribution of Arabic coins from the Near East, which are extremely rare in Western Europe, is illustrative of this[13]. One would not expect Vikings who were bent on amassing booty to export their own silver from Scandinavia, unless they intended to settle elsewhere. Silver and valuables flowed into Scandinavia, and not vice-versa. The Westerklief II silver hoard may be regarded as the accumulated wealth of a Scandinavian, concealed and buried in an earthenware pot. It is a reflection of silver that was in circulation in Scandinavia in the 870s, supplemented with Carolingian coins acquired in Frisia. As in Westerklief I, the Carolingian coins were the result of activities on the part of the Viking owners outside Scandinavia. Surprisingly enough, the dates of the hoards: after *c.* 850 and after 875-877 both fall within the period in which the Danes ruled the roost in western Frisia. The Westerklief I find has been linked with this Danish supremacy, and was interpreted as the silver taken by a Viking from the north because he intended to settle in Frisia for a long time. Interpretations attributing the Scandinavian silver to Frisians or to passing Vikings have been rejected as being less plausible (Besteman 1997, 214-5). The opportunity to settle was offered when Roric was granted lands in western Frisia by emperor Lothar I in 850. The Danish position of power, legitimized by the Carolingians, implied the possibility of Scandinavian settlement. In 882, when the Dane Godfred received Roric's former 'counties in Kennemerland' as a benefice from Charles the Fat, it was with the explicit mention that it was for the purpose of settling there (Rau 1972 for the year 882).

13 Steuer 1987, 130; Brather 1995-6 investigated the distribution for North, Central and Eastern Europe.

The second Scandinavian silver find, Westerklief II, considerably strengthens the hypothesis of Danish settlement in western Frisia and removes any doubt that the first find was an isolated, chance find. The difference in the dates of the finds, over a quarter of a century, endorses this further. The dates, and to a lesser extent, the composition and function of the finds, argue in favour of Danish settlement on Wieringen during those years, which was consistent with their position of power.

Westerklief II (tpq 875-7) falls within the late period of Danish influence in Frisia. How late, is dependent on the moment the hoard was concealed, though it would not have been much later than the youngest coin, at the end of Roric's leadership and before the period in which Godfred was in charge of the coastal area. Westerklief provides an argument for the duration of Roric's power in Frisia. Roric is last mentioned in the historical sources in 873, and in 882 Godfred received the lands that Roric once had. From this, one may conclude either that Roric died between these dates, or, but this is highly unlikely, that he did a moonlight flit. The deposition of Westerklief II after 875-7 demonstrates that the Danes were, at any rate, still present on Wieringen, unless one shifts the date the hoard was buried to at least five to seven years after the youngest coin, to after 882, thus attributing Westerklief II to one of Godfred's men. Because of the unchanging Danish presence on Wieringen at the time the hoard was buried we may assume that their leader Roric was still alive and holding his benefice, and that he must therefore have died not long before Godfred's enfeoffment. However, the latter did not survive him very long and was killed in 885. This definitely ended Viking control in West-Frisia and Westerklief II therefore marks the latest decade of Danish presence.

The Danes' choice of Wieringen as a base is consistent with that of other familiar Viking island bases such as of Sheppey, the former island of Thanet, Ile de Noirmoutier, and we may also include the island of Walcheren. For the Danes, Wieringen was an ideal base with a safe, island position and the presence of extensive Carolingian estates was important for provisioning. Its strategic location on the through navigation course via the Vlie, Almere and Vecht to Dorestad offered both good communications within their territory as well as prospects for operations overseas (Besteman 2004a, 104-106). Apart from the Scandinavian finds, the presence of Danes on Wieringen is further underpinned by coin finds of Arabic dirhams, now seven altogether, distributed over the former island (fig. 2). In addition, a Scandinavian origin is also possible in the case of the odd ornament. The scattered dirham finds point to the exchange of these coins during contacts with the Danes there. The increasing number, distribution and dating of Arabic coins in the North Netherlands and on Walcheren can perhaps also be explained by similar direct contacts with Vikings. We shall return to this point later.

8. Westerklief I and II and the changing function of silver in the ninth century

In Scandinavian society, precious metal in the form of prestigious ornaments played a prominent role until well into the ninth century. These ornaments constitute the primitive money which could be used to bind one's followers and to express social prestige and power. Control of long-distance trade in prestige goods and precious metals is therefore a precondition for a high position of power. Participation in trade or raids gave Viking leaders and their followers the possibility to acquire these riches, whether or not by means of exchange. The hoarding of valuables and precious metal was essential in early Viking Age Scandinavia for maintaining a position of power in society, while at the same time it withheld precious metal from economic transactions. As a result of a gold shortage and the discovery of vast silver reserves in Central Asia, silver came to play an ever-increasing part as a precious metal. As large quantities of silver from ransoms, tributes, plunder and trade flowed into Scandinavia as a result of expanding Viking activities overseas, silver was increasingly used as bullion money. Since Scandinavian coins were virtually lacking in the absence of a strong royal authority capable of guaranteeing good quality coinage and its circulation, silver increasingly functioned as weight money, and its quality was tested when it was used in transactions in weighed quantities as a means of payment. Together with the growing circulation of silver, its use in minor transactions also increased, and regardless of form, whether ornaments, ingots or coins, it was divided into ever smaller fragments of hacksilver (Steuer 1987a, 512). The numerous foreign coins were therefore not counted, but weighed, and if necessary, fragmented. It was not until the rise of a powerful royal authority in Denmark in the second half of the tenth century that coins became prevalent, and that coins were counted instead of being weighed. To sum up, we see a shift from prestige money to weight money which is generally dated to the end of the ninth and especially to the tenth century (Hårdh 1996, 170-1).

There is an apt illustration of the changing role of silver in a frequently quoted passage from the Heimskringla by Snorri Sturleson about the Icelandic poet Eyvind Skaldaspiller which runs as follows[14]: *Eyvind composed a poem about the people of Iceland for which they rewarded him for each bonde giving him three silver pennies of full weight and white in the fracture. And when the silver was brought together at the General Thing, the people resolved to have it purified and made into a shoulder-pin. And after the workmanship of the silver was paid, the shoulder-pin weighed some fifty marks.* Although the saga was not

14 Quoted here from the translation by P. Foote in J. Graham-Campbell (1982, 32), who focused attention on this text.

written down until 250 years later, it gives a reliable picture of the changing role of silver in the Viking period. The enormous shoulder-pin weighing some 10 kg. – this must surely be poetic licence – which is to express the appreciation for and the prestige of its wearer, Eyvind, is made of weighed, tested and purified silver, here undoubtedly in the form of foreign coins, for there were no coins in Iceland. It is the traditional function of prestige money that is illustrated here. However, the story ends in an anti-climax which shows that the shift towards a more economic function cannot be halted, for the writer continues, almost regretfully: *This (the shoulder-pin) they sent to Eyvind: but Eyvind had the shoulder-pin broken into pieces, and with the silver he bought a farmstead for himself.*

The process of change from prestige to weight money did not run parallel throughout Scandinavia. Steuer (1987b 128) concluded on the basis of the distribution of balances and weights that there were differences between the Scandinavian regions in which weight money functioned). Hårdh (1996 170-174) did this on the basis of the contents of hoards, focussing on the neck-rings and the increasing proportion of hacksilver in the hoards. She showed that the use of silver as currency in Scandinavia first occurred in the south, including Denmark and southeast Scandinavia. An earlier ninth-century dating for the use of hacksilver was impossible because of the absence of well dated Western European coins in Viking hoards. The Arabic coins were not suitable for dating owing to the long period of circulation of these coins (over 300 years in some cases), due to the fact that, unlike the Carolingian coins, they were not taken out of circulation. This led to the view that most of the older Arabic coins probably came to Scandinavia with the late-ninth and tenth-century flow of silver (Steuer 1987b, 127), especially note 37.

The double dating of Westerklief II by 95 Arabic and 38 Carolingian coins plus coin ornament (*t.p.q.* 871/2 or 873/4 and 875-877 respectively) which is not far apart, now gives us something to go on. It demonstrates that the development towards a weight money economy in Scandinavia was already in progress before 875-877. The striking differences between the two Wieringen hoards therefore tell us a lot about the changing role of silver in ninth-century Scandinavia. Westerklief I, dating after *c.* 850, with its complete and heavy ornaments is representative of traditional hoards, where the social role of silver as prestige money predominates (Samson 1991, 130-4; Gaimster 1991, 114). The smaller objects, the Arabic coins and especially the fragmentation of and testing traces on the silver in Westerklief II confirm that the economic function of silver had sharply increased, and that silver was genuinely used as weight money, given the degree of fragmentation which is considerable (see table 5) and the distribution of weight of Westerklief II (fig. 17) which is similar to that of early-tenth-century hoards in Denmark which have been analysed by Hårdh (1996, 91 ff.).

One gets the impression that the Westerklief II silver was intensively used as a means of payment, and that it came from a region where weight money was the norm. That the probable provenance of the silver was Denmark, one of the Scandinavian regions where weight money and hacksilver were first observed, is consistent with this line of reasoning. The high degree of fragmentation is surprisingly early, showing that weight money was already intensively used in the third quarter of the ninth century.

9. The Westerklief hoards in relation to other ninth-century silver finds

The interpretation of Westerklief I and II as hoarded wealth belonging to Danes in Frisia begs the question whether there are any other finds of valuables from the Viking period with a Scandinavian aspect. The lengthy presence in Frisia of Danes, who brought their silver with them, led to the exchange of this silver, as evidenced by the scattered finds of Arabic coins across Wieringen. This silver need not, of course, have been confined to the island, as shown by the distribution in the North Netherlands and on Walcheren of now at least 33 Arabic coins apart from those from the Westerklief hoards (fig. 18). Eight of the scattered dirhams are hacksilver and must have functioned in a weight money system (Besteman 2004, 30-33). Apart from this there are other finds related to the Scandinavian use of silver, such as the Warfum ingot (Knol 1990-23), an arm-ring with pendant rings from Callantsoog (Van Heeringen 1990) and moulds from Dorestad for casting ingots (Kars and Wevers 1982,172-3). Although one cannot exclude the possibility that Frisian traders may have taken some of the coins with them from Scandinavia, it seems likely that the Danes present here were mainly responsible for the distribution of this silver. An indication for this is the dates of the scattered Arabic coins which, with one exception, all fall within the dating of Westerklief II (Besteman 2005, 28). If Arabic coins had been distributed by Frisian traders, one would also expect Arabic coins of the late ninth and tenth century, because it was then that the flow of Arabic silver was in full swing and that Frisian trade recovered.
Starting from the assumption that it was mainly the Vikings that were responsible for the distribution of Scandinavian silver in the Netherlands, all hoards with a possible Scandinavian aspect, either with regard to the provenance of the objects or to their composition, deserve attention. It has been pointed out that in the ninth century a surprising number of mixed hoards, that is with both numismatic and non-numismatic silver, occur in Frisia, as in Scandinavia. These may include silver hoards collected by Vikings and consisting largely of Carolingian silver. An example is the Zuidbarge hoard, with coins and ornaments including

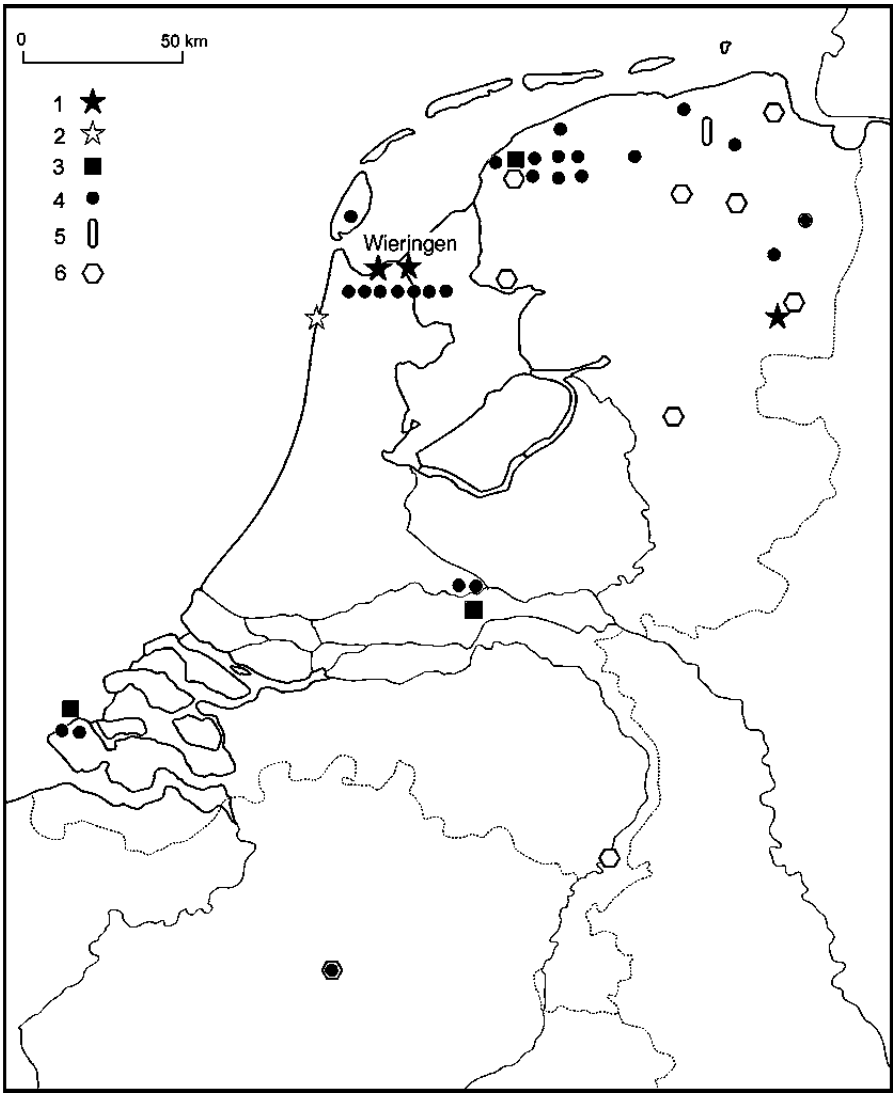

Figure 18. Distribution of Arabic coins and mixed hoards dating from the ninth century in the Netherlands (drawing Jan Besteman). Legend: 1. Viking hoard; 2. Possible Viking hoard; 3. Arabic coin in ornament (10th-century coin in grey); 4. Arabic coin (10th-century coin in grey); 5. Viking ingot; 6. Mixed hoard.

at least two dirhams and one or two silver rings and a coin brooch with dirham, all Scandinavian (Besteman 2004, 35-36). It would be going a step too far to include all mixed hoards with ornaments and coins, but it is worth investigating. In Frisia and its immediate surroundings there are eleven of such hoards including Westerklief and all are from the ninth century. Outside Frisia there are only four such hoards: Roermond (Nederlands Limburg), Muizen aan de Dijle (B-near Louvain) and Féchain (F-dép. Nord) as well as Molliens-Vidame (F-dép. Somme) all of which are located near rivers in the area where the Vikings were very active. In the rest of the western and central parts of the Carolingian empire they seem to be absent. It is possible to explain the presence of ornaments in the Frisian hoards by the contacts of Frisian traders with traders overseas for whom coinage was not always the norm, or by a tradition of ritual hoards. In the same way the shortage of coins in Frisia may have been responsible for the presence of ornaments in the hoards. Last but not least, a heterogeneous collection of silver accumulated by Vikings active in the region must not be excluded as a possible explanation for at least some of these mixed finds which hardly occur elsewhere in the Carolingian empire, nor after the ninth century (Besteman 2004, 35, Wamers 2005, 118-9, Zuyderwyk 2007, 118).

On the basis of a growing number of Arabic dirhams and other objects related to the Scandinavian use of silver and some of the mixed hoards we may conclude that Viking influence and Viking-Frisian contacts were most intensive in the North Netherlands. The exchange of this silver indicates Viking influence, either by settlement as on Wieringen, or through the intensive Frisian contacts overseas. With this the Westerklief silver puts us on a track of potential Viking silver which is still insufficiently investigated, and which could further underpin the conclusions of the Westerklief hoards, namely that Westerklief I and II offer important archaeological and numismatic evidence for Viking activity and settlement in the period 850-885, when the Danes were in control of West Frisia, and that they highlight the fact that this period was the most dynamic of two centuries of Viking contacts with the Netherlands.[15]

15 The Dutch text of the article was translated by Christine Jefferis, Zaandam.

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Summary

From 812 to 1008, Viking raids scourged the Low Countries. Of these two centuries, the period between 850 and 885 was the most turbulent, when Danish Vikings acquired a position of power legitimized by the Carolingian rulers who granted Dorestad and West-Frisia in fief to their leaders Rorik and, later, Godfred.

Our knowledge of this period was based on the historical data, until the recent discovery of two Scandinavian silver hoards near Westerklief on the former island of Wieringen. The first hoard, Westerklief I, comprised 1663 grams of silver, largely complete Scandinavian ornaments and ingots plus a handful of Carolingian coins, and was dated to after c. 850. The Westerklief II hoard, the subject of this publication, contained 557 grams of silver, mostly hacksilver from ingots, ornaments and Arabic coins, the youngest of which dates from 870/1 and two others possibly from 873/4. The provenance of the ingots and the ornament fragments is Scandinavian. This is also indicated by the fragmentation as well as by the Arabic coins which came from the Near East via Northern Europe. The 95 dirhems, most of which are also fragmented, date from between 711/2 and 870/4 and are consistent with those found in northern hoards. In addition, the Westerklief II hoard contains a coin brooch with an imitation solidus of Louis the Pious and a rather diverse collection of 38 unfragmented Carolingian coins. They cover a long period from 819 to 877 and include several anonymous, rare or unique specimens. The most recent coin dates from 875-7, proving that the hoard must have entered the soil after 875-7.

Westerklief II can therefore be dated to the end of the period in which Danish Vikings ruled the roost in the Western Netherlands. The Westerklief I find, dating to c. 850, is linked to Vikings who settled on Wieringen after Rorik's enfeoffment, and who took their valuables with them from the north. Westerklief II (tpq 875-7) supports this conclusion in all respects. Wieringen offered the Danes a safe island position, a strategic base from which to control the navigation route from Central-Frisia across Lake Almere to Dorestad, and a good starting point for Viking activities elsewhere. The two Westerklief hoards therefore provide important archaeological arguments in the discussion on Danish settlement in West-Frisia.

As a result of its tpq 875-7 date, Westerklief II is one of the oldest and rarest Scandinavian hoards containing both Arabic and Carolingian coins as well as hacksilver. Arabic coins and hacksilver are found in large quantities in Scandinavia from the late 9th and 10th centuries, when silver was increasingly used in transactions as weight money. The fragmentation of the Westerklief II silver also points to weight money. This hoard therefore shows that the traditional prestige aspect of silver in Scandinavia, as is visible in Westerklief I with its complete, heavy objects, made way for an economic function of silver as weight money and as a means of payment in transactions as early as the third quarter of the 9th century.

In Western Europe, Arabic coins and hacksilver are rarely found outside the Scandinavian sphere of influence. Apart from the 95 coins in Westerklief II, there have been seven stray dirhem finds across Wieringen indicating that an exchange of silver also took place. The distribution of over 30 dirhem finds and other Scandinavian silver finds over the Northern Netherlands and Walcheren reveals the places where relations with the Vikings were the most intensive. The dates of these dirhems correspond to those of Westerklief II, so that these dirhems can also be linked to Viking activities in the third quarter of the 9th century. The same probably also applies to the striking distribution of mixed hoards containing coins and ornaments especially in Frisia in the second half of the 9th century.

Of these, Westerklief I and II and probably also the Zuidbarge hoard can be attributed to Vikings, but even the remaining hoards can point to direct or indirect Viking influence. The unique silver hoards of Westerklief with their spectacular contents have not only provided new insights into Viking relations with Frisia in general, but also into the use of silver there and the changing role of silver in Scandinavia.

Dutch Summary

Van 812 tot 1008 teisterden Vikingrooftochten de Lage Landen. Van deze periode was de 9e eeuw de meest roerige, in het bijzonder van 850 tot 885 toen Deense Vikingen een door Karolingische vorsten gelegitimeerde machtspositie verwierven door de belening van hun leiders Rorik en na hem Godfried met Dorestad en West-Frisia.
De kennis daarover berustte voornamelijk op historische bronnen, totdat bij Westerklief op Wieringen twee Scandinavische zilverschatten werden gevonden. De eerste, Westerklief I, bevatte 1663 g zilver, voor het grootste deel complete Scandinavische sieraden en baren en een handvol Karolingische munten en werd gedateerd na ca 850. Westerklief II, waaraan deze publicatie gewijd is, bevat 557 g overwegend uit Scandinavie afkomstig zilver, grotendeels hakzilver van baren, sieraden en Arabische munten, waarvan de jongste uit 870/1 dateert en twee andere misschien uit 873/4. De herkomst van de baren en sieraadfragmenten is Scandindinavisch met een voorkeur voor Denemarken. Ook de fragmentatie en gebruikssporen wijzen daarop evenals de Arabische munten, die via Noord-Europa uit het Nabije Oosten afkomstig zijn. De 95 dirhems waarvan de meeste ook gefragmenteerd zijn, worden gedateerd tussen 711/2 en 870/4 en vertonen geen afwijkend beeld van die in Noordelijke schatvondsten. Daarnaast bevat de schat nog een muntfibula met imitatie *solidus* van Lodewijk de Vrome en een tamelijk diverse collectie van 38 ongefragmenteerde Karolingische munten. Zij bestrijken een lange periode van 819 tot 877 en daaronder bevindt zich een flink aantal anonieme, zeldzame of unieke exemplaren. De jongste dateert uit 875-7, zodat de schat na 875-7 in de grond geraakt moet zijn.
Westerklief II wordt daarmee gedateerd in het eind van de periode waarin Deense Vikingen de dienst uitmaakten in West-Nederland. De vondst van Westerklief I (*tpq* ca. 850), werd in verband gebracht met Vikingen die zich na de belening van Rorik op Wieringen gevestigd hadden met medeneming van hun kostbaarheden uit het noorden. Westerklief II (*tpq* 875-7) versterkt deze conclusie in alle opzichten. Wieringen bood de Denen een veilige eilandpositie, een strategische basis voor controle van de vaarroute van het Friese kerngebied over het Almere naar Dorestad en een goed uitgangspunt voor Vikingacties elders. Daarmee leveren de twee Westerkliefschatten belangrijke archeologische argumenten in de discussie over Deense vestiging in West-Frisia.
Westerklief II is door zijn datering na 875-7 een van de oudste en zeer zeldzame Scandinavische schatvondsten met zowel Arabische en Karolingische munten en tevens met hakzilver. Arabische munten en hakzilver komen in Scandinavië in grote hoeveelheden voor vanaf de late 9e en de 10e eeuw, wanneer het zilver in toenemende mate als gewichtsgeld in transacties gebruikt wordt. De fragmentering van het Westerklief II zilver wijst ook op gewichtsgeld en toont daarmee aan dat de traditionele sociale functie van zilver in Scandinavië, zoals die nog blijkt uit Westerklief I met zijn zware complete voorwerpen, al in het derde kwart van de 9e eeuw plaats maakt voor zilver met een economische functie als gewichtsgeld en betaalmiddel in transacties.

Arabische munten en hakzilver komen in de West-Europa buiten de Scandinavische invloedsfeer nauwelijks voor. Behalve de 95 munten in Westerklief II zijn er verspreid over Wieringen nog zeven losse dirhemvondsten gedaan, die aantonen dat er ook uitwisseling van vikingzilver plaats vond. De verspreiding van meer dan 30 dirhamvondsten en andere Scandinavische zilvervondsten over Noord-Nederland en Walcheren laat zien waar de relatie met de Vikingen het meest intensief was. De datering van deze dirhems komt overeen met die van Westerklief II zodat ook hier een verband gelegd kan worden met de Viking-activiteiten in het derde kwart van de 9e eeuw. Dat geldt vermoedelijk ook voor de opvallende verspreiding van gemengde schatvondsten met munten en sieraden vooral in Frisia in deze periode. Daarvan zijn Westerklief I en II en vermoedelijk ook de schat van Zuidbarge aan Vikingen toe te schrijven, maar ook de overige gemengde schatvondsten kunnen direct of indirect op Vikinginvloed wijzen.
Zo blijken de unieke zilverschatten van Westerklief met hun spectaculaire inhoud nieuwe inzichten te geven over Vikingrelaties met Frisia in het algemeen maar ook over het gebruik van zilver daar en over de rol van zilver in Scandinavië.