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Some remarks on the legionary pottery ('Holdeurn ware') from Nijmegen

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Abstract Shortly after the Batavian revolt, the Legio x Gemina introduced a new type of pottery to the Netherlands. It is named Holdeurn ware after the site of a pottery excavated between 1938 and 1942 on the estate De Holdeurn near Berg en Dal (gemeente Groesbeek) and has been examined in detail by J. H. Holwerda and W. C. Braat. In this paper a few moulds and several new signatures of potters on Holdeurn vessels are discussed. The name of one of these, Marcus Fabius Facetus (figs 2 & 4) seems to indicate that the man originally came from Italy, as did the potter Felicio Baro (figs 3-4) whose name appears on a lamp mould already published by Holwerda. The decoration of the flat rim of a large Holdeurn bowl from the hand of a certain Priscus (figs 5-6) leads to a study of the relationship between pottery and decorated silver plate. In addition, the possibility that this type of pottery was made in the immediate neighbourhood of the legionary fortress on the Hunerberg (figs 7-10) is assessed on the basis of archaeological finds in the area and a summary of the extremely restricted distribution of 'Holdeurn' pottery outside Nijmegen is appended. The position of the castellum Woerden (Laurum) is, in this context, remarkable on account of the considerable number of sherds of this ware found there (fig. 11). The explanation may be sought in the exceptional nature of the auxiliary unit stationed in Woerden – the Cohors xv Voluntariorum civium Romanorum – which was perhaps supplied in a different manner to the other auxilia in Germania Inferior.

I. Introduction

The Roman army in general and the legions in particular formed an important element in the spread of pottery traditions. The first imports of Roman pottery in the Netherlands, which still betray strong Italic influences, are associated with the campaigns of the last two decennia BC. It may be assumed that the troops then stationed at Nijmegen rapidly commenced to produce their own pottery, as was the case in other military bases, such as Xanten, Neuss and Haltern (Hagen, 1912, p. 343 ff.; Van Buchem, 1941, p. 18; von Schnurbein, 1974, pp. 77-88 with other references in note 36; Bogaers & Haalebos, 1975b, p. 150; Bruckner, 1975, p. 77 ff.). The establishment of the Limes along the Oude and the Kromme Rijn in the first century AD led to a somewhat more general distribution of Roman pottery. The years 69 and 70 interrupted the development since numerous small potteries must have ceased production due to the war, but on the other hand, the repeated movement of troops may well have acted as a stimulus to the local production centres. Towards the end of the Batavian revolt, Legio x Gemina from Spain was ordered firstly to Harenatium (Rindern?) and later to Batavodurum-Noviomagus (Nijmegen) (Bogaers, 1961, p. 274, fig. 5, 1967,

p. 56). It had previously been stationed briefly in Carnuntum on the Danube. This legion must have been the agent in the introduction of a new type of pottery, the so-called Holdeurn or Nijmegen ware. One of the sites where this pottery was made was excavated between 1938 and 1942 by Holwerda and Braat to the E of Nijmegen, at De Holdeurn, near Berg en Dal (gemeente Groesbeek).¹ The fabric of these products is predominantly orange or somewhat yellowish in colour. Several categories may be distinguished on the basis of quality and finish.

1.1. The fine Holdeurn ware is usually fairly thin-walled, it is often polished or, in perhaps a few cases, covered with a thin slip, like terra sigillata. In addition to the undecorated forms – platters, bowls and beakers – there are a number of types with various kinds of decoration.

1. Lamps, jugs and dishes, which may be wholly or partially mould-formed.
2. Applied faces and other plastic decoration may be wholly or partially hand-made. Fig. 1 shows a good example. A chubby face has been applied to the springing of a jug handle (find no. CA. 1974.494.e). The face itself is mould-made, the hair being touched up with a spatula later. A similar combination of techniques may be seen in



Fig. 1. Springer of a jug handle of fine Holdeurn ware decorated with a mould-made face. Photo Kath. Universiteit, Nijmegen, 1:1.

the decoration on the guard of a lamp handle (fig. 2, 1; find no. CA. 1973.26.0) which was mould-made, while the clay pellets around its edge were applied separately.

3. Barbotine decoration was applied especially to large bowls and to beakers. The designs vary from simple fronds and leaves to depictions of animals. The decoration sometimes consists of a dribbled white clay slip (Vermeulen, 1932, pp. 68, 76) but usually the figures are of the same colour as the vessel.

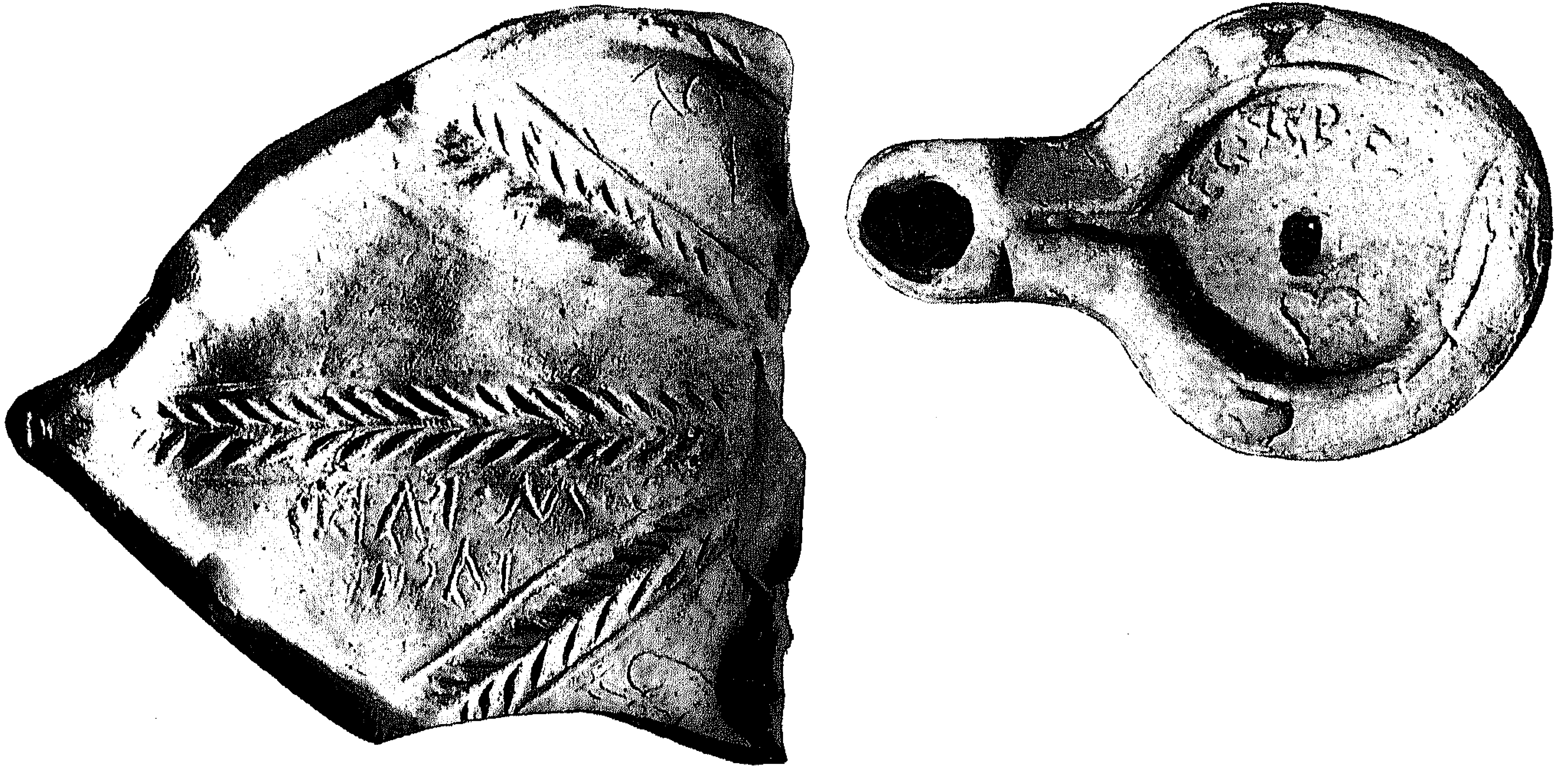
4. Rouletting was applied chiefly to straight walled beakers and to bowls. The fine Holdeurn ware as a group displays contacts with the Mediterranean. This may explain the Augustan beaker in the original type list (Holwerda, 1944, p. 11, no. 32; Wynia, 1973, pp. 395-397), and in a few cases, specifically Spanish influences may be isolated (Greene, 1972, p. 13). In general, the shapes seem to correspond to those of pottery manufactured by other legions, for example in Vindonissa and in the Wetterau near Mainz (Ettlinger & Simonett, 1952, p. 57 ff., esp. p. 60 ff.). Many shapes suggest metal prototypes either in their angularity or in their decoration, and a few imitate glassware, such as the well known pillar moulded bowls.²

1.2. The Holdeurn coarse gritted-ware consists of jars, large bowls, dishes, jugs and mortaria. This partially reproduces the range of the 'common' coarse grey gritted-wares, but the variation in profile is rather greater. Holwerda included a number of pots which appear to be modelled on the so called cork-urns (Loeschcke type 91A; Holwerda, 1944, type 61; Daniëls, 1955, p. 322) in this category. The distribution in Nijmegen may possibly indicate a rather earlier dating of this type of presumed Holdeurn ware, as Holwerda himself had already noted. Moreover, comparable pieces are known from Haltern (Loeschcke type 58) with a similarly orangy-red paste. On the other hand, this shape seems to have survived till the end of the first century, if not longer; similar rims still occur amongst the finds from the sewer of the last legionary fortress at Nijmegen,

which can, on the whole, be dated to around 100 AD.³ We should, however, be cautious in accepting all these vessels as products of De Holdeurn without reservations, for we may well be faced with an earlier, local form which was taken over by the potters of the 10th legion. In view of the occurrence of a stamp of the Legio IX Hispana on the rim of a mortarium, such vessels were still being made of red paste in the first decennia of the second century (Bogaers, 1967, p. 64, fig. 6), after the departure of the Legio X Gemina.

1.3. The majority of the jugs with a reddish paste which Holwerda considered to have been manufactured on De Holdeurn, are less coarse than the wares listed under 1.2, but they do not approach the quality of the fine wares. They are closely comparable with the smooth-surfaced white ware of the last quarter of the first and the beginning of the second century. A very few were perhaps made rather later (Holwerda, 1944, no. 608), but then again, some jugs seem to fit better in the pre-Flavian period. The most extreme example is Holwerda, 1944, no. 241, which in the applied roundels for instance shows similarities to jugs from the Augustan fortresses Oberaden and Neuss (Albrecht, 1942, type 43A; Bruckner, 1975, p. 82, type 1). A similar piece was found in a pit of the first period (begun c. 15-10 BC) of the legionary camp at Nijmegen (find no. CA. 1975.623.k. See also Bogaers & Haalebos, 1975b, fig. 7). This type of jug need not have been produced in Xanten, as Loeschcke, according to Daniëls, in his assessment of the jug Holwerda, 1944, no. 480, considered, but could just as well have been made in Nijmegen itself or elsewhere in the Rhine valley (Daniëls, 1955, p. 323; Bogaers & Haalebos, 1975b, p. 150). Again it would be better not to speak of Holdeurn ware in the case of these early jugs, unless one is prepared to name every single sherd of red pottery thus.

The excavations being conducted by the Institute of Ancient History and Archaeology of the Catholic University



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Fig. 2.

1. Handle-guard of fine Holdeurn ware lamp with the signature M. FABI / FACIT(i).

2. Lamp of fine Holdeurn ware with graffito LEG. X G.P.F. on the disc. Photo Kath. Universiteit, Nijmegen, 1:1.

Nijmegen in the area of the Roman legionary camps on the Hunerberg at Nijmegen,⁴ have, since their inception in 1973, brought to light a few fragments of fine Holdeurn pottery which may increase our knowledge of this particular group. An inventory of objects probably derived from Roman kilns in or in the immediate neighbourhood of the camps shows the relative value of the term 'Holdeurn', and finally, we wish to call attention to the possibility of the trade in Holdeurn pottery in the light of some recent finds from Woerden.

2. New potters' signatures on fine Holdeurn ware

The most important piece from the recent excavations is, in this context, the leaf-shaped lamp handle-guard (fig. 2, 1; find no. CA. 1973.26.0). It was found in a pit against the S wall of a large stone building in the final camp (per. 5, built after 88 or 96 AD, remaining in use until well into the second century), in cutting III on the NW corner of the junction Berg en Dalseweg and Huygensweg (Bogaers & Haalebos, 1975a, p. 12, fig. 8). The associated finds are not characteristic enough to provide more than a rough date,

but they seem to point to the end of the first century or somewhat later. Such lamps were, until now, not suspected in the Holdeurn repertoire. The leaf was mould-made, but certain details were touched up by hand. The veins consist of three ridges with dashes on either side, each ridge ending with an applied pellet, another pellet being applied between the central and each of the outer ridges. In each of the lower corners is a further ornament in the shape of a little leaf which had been scratched in the mould. The fabric is the usual orange of Holdeurn ware but with a blue-grey core. This sherd is not only notable because of its shape and decoration, but its importance is increased by the presence of a two-line mirrored graffito, which must have been scratched into the mould: M. FABI / FACIT(i).

The potter Marcus Fabius Facetus, whose full name is now supplied by this graffito, is well known at De Holdeurn. His praenomen and nomen gentilicium MARCI FABI also occur on the top of a mould for making rectangular dishes (Holwerda, 1944, p. 6, pl. 12,3c). There were other potters on De Holdeurn, such as Felicio Baro⁵ (fig. 3), who also signed their work, either in cursive letters or in rapidly written capitals, such as the anonymous potter who wrote LEG. X G.P.F. on his lamp (fig. 2,2).⁶ The decoration of this lamp associates the piece signed by Facetus still more closely with the legionary pottery, for on the upper sur-



Fig. 3. Reverse of a pipe-clay lamp mould with graffiti FELICIO / BARO / FICIT scratched on prior to firing. Photo RMO, 2:3.

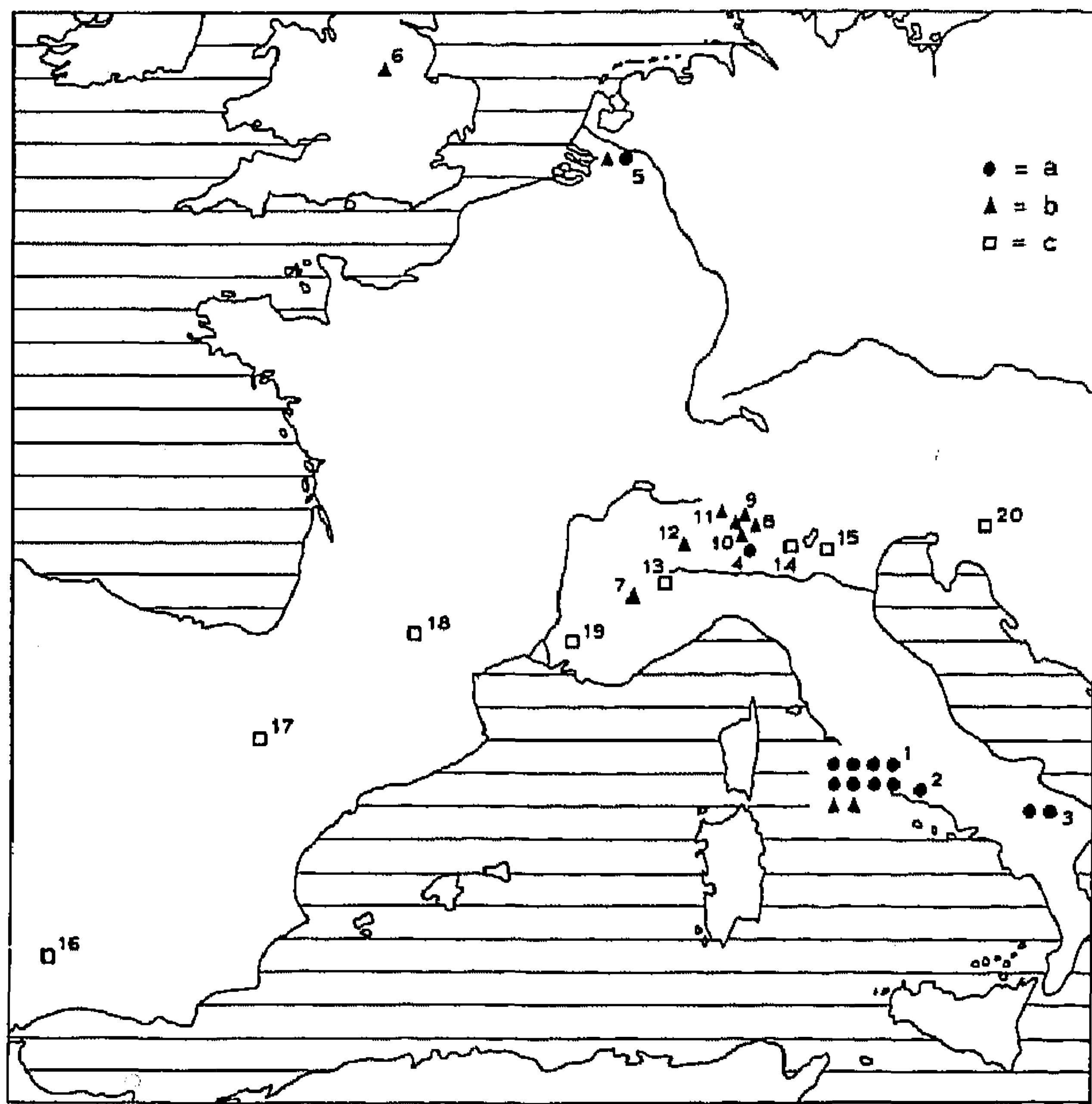


Fig. 4. Distribution of the cognomina Facetus and Baro from inscriptions. Drawing OGA.

a = Facetus, b = Baro, c = birth place of soldiers of the Legio x Gemina buried at Nijmegen.

1. Roma, 2. Mola di Gaieta-Formiae, 3. Venosa-Venusia, 4. Milano-Mediolanum, 5. Nijmegen-Noviomagus, 6. England, 7. Embrun-Ebrodunum, 8. Como-Comum, 9. Arsicete, 10. Brebbia, 11. Trobaso-Torbasium, 12. Ivrea-Emporedia, 13. Torino-Augusta Taurinorum, 14. Brescia-Brixsa, 15. Verona-Verona, 16. Astigi, 17. Calahorra-Calagurris, 18. Toulouse-Tolosa, 19. Apt-Iulia Apta (?), 20. Ljubljana-Emona.

face of this much simpler piece is sketched a little leaf, drawn in the same style in a single movement. This similarity and the mention of Legio x Gemina makes it probable that the makers of these lamp moulds were employed in the military potteries in or near Nijmegen. Facetus, Felicio Baro and Priscus (see p. 106) are likely to have been skilled potters who made their own moulds.⁷

Little can be said about the descent of Priscus (Kajanto, 1965, p. 288: more than 800 times in the CIL), rather more is known of the other two. Both Marcus Fabius Facetus and Felicio Baro probably came from the S (fig. 4). The nomen gentilicium of the former was especially common in Italy (Schulze, 1904, p. 162), and is also mentioned 23 times in part XIII of the CIL which deals with the inscriptions from Gaul and the Germanic provinces. The majority of the Fabii mentioned here come from the Gaulish provinces Aquitania, Lugdunensis and Belgica. The Fabii from Germania Inferior and Superior are generally soldiers, who may have come from far away (CIL XIII, 7415; 7506; 8308; 11780; 11796.a: consul on a military diploma). Civilians of this name are mentioned in only two inscriptions, one from Pesch and the other from Cologne (CIL XIII, 12017; 12056).

The name Facetus is without doubt foreign. Only seven men with this cognomen appear in the CIL, and a further eight women in the city of Rome are named Faceta (Kajanto, 1965, p. 260). Of the male Faceti, two also come from Rome, two from Venusia in Apulia and one from Milan; a freedman is known from a tombstone found in the S part of Latium, near Formiae.⁸ It is thus fairly probable that M. Fabius Facetus came of an Italian family from the neighbourhood of Milan or Rome.

The second potter, Felicio Baro could well have come from the Italian-Swiss frontier region. The combination of two cognomina has an odd appearance, and perhaps they are, in fact, two different people. There is nothing unusual about the first name – it is mentioned 184 times in the CIL and is also known from inscriptions from Germania Inferior (CIL XIII, 8161; 8688; Kajanto, 1965, p. 273). The second name, Baro, is probably of Latin origin (Holder, 1896, p. 352; Kajanto, 1965, p. 264: 9 times in the CIL). It was especially popular in the region between Lake Como and Briançon, as evidenced by several inscriptions.⁹ N Italy and Gallia Narbonensis supplied many recruits for the legions in the first century, and our potter could also have come from this region.¹⁰

A second Holdeurn sherd (fig. 5, 1; CA. 1974.280.e), which merits closer attention came to light in the big sewer of the stone built fortress (per. 5) in cutting X, to the N of the Praetoriumstraat (Bogaers & Haalebos, 1975a, fig. 1, A). Once again there is little to be said regarding the date, save that most of the other finds come from the period around 100 AD. These include coins of Domitian (81–96)



Fig. 5. 1-2. Rims of fine Holdeurn ware bowls with mould-made decoration. 3-4. Obverse and reverse of a mould of white pottery with the graffito PRISCI scratched into the reverse prior to firing. Photo Kath. Universiteit, Nijmegen, 2:3.

and Trajan (98-117). Amongst the materials used to floor the sewer were secondarily used tiles bearing the stamp of the 10th legion with the epithet *Pia Fidelis*, which was not applied to this legion before 89 (Bogaers & Haalebos, 1975a, pp. 14-15). The sherd itself is hardly worthy of comment, but the decoration is of interest. It is from the rim of the carinated bowl, Holwerda, 1944, type 5, which is reminiscent of the terra sigillata bowl Drag. 29, but which has, in addition, two handles. The flat rim which partially rests on these handles bears a mould-made deco-

ration. In our case, the decoration consists of very clumsy rosettes and leaves, which looks rather similar to that on a much more elegant silver dish from the Manching hoard, which could, indeed, have been used as the direct model for our piece (fig. 6). However, the date at which this dish, along with some other pieces of plate, was hidden makes such direct influence unlikely. The hoard was probably buried during the third century. But there may still be some link between the dish and our sherd, which is some 100 years earlier. Moulds for metal objects were often

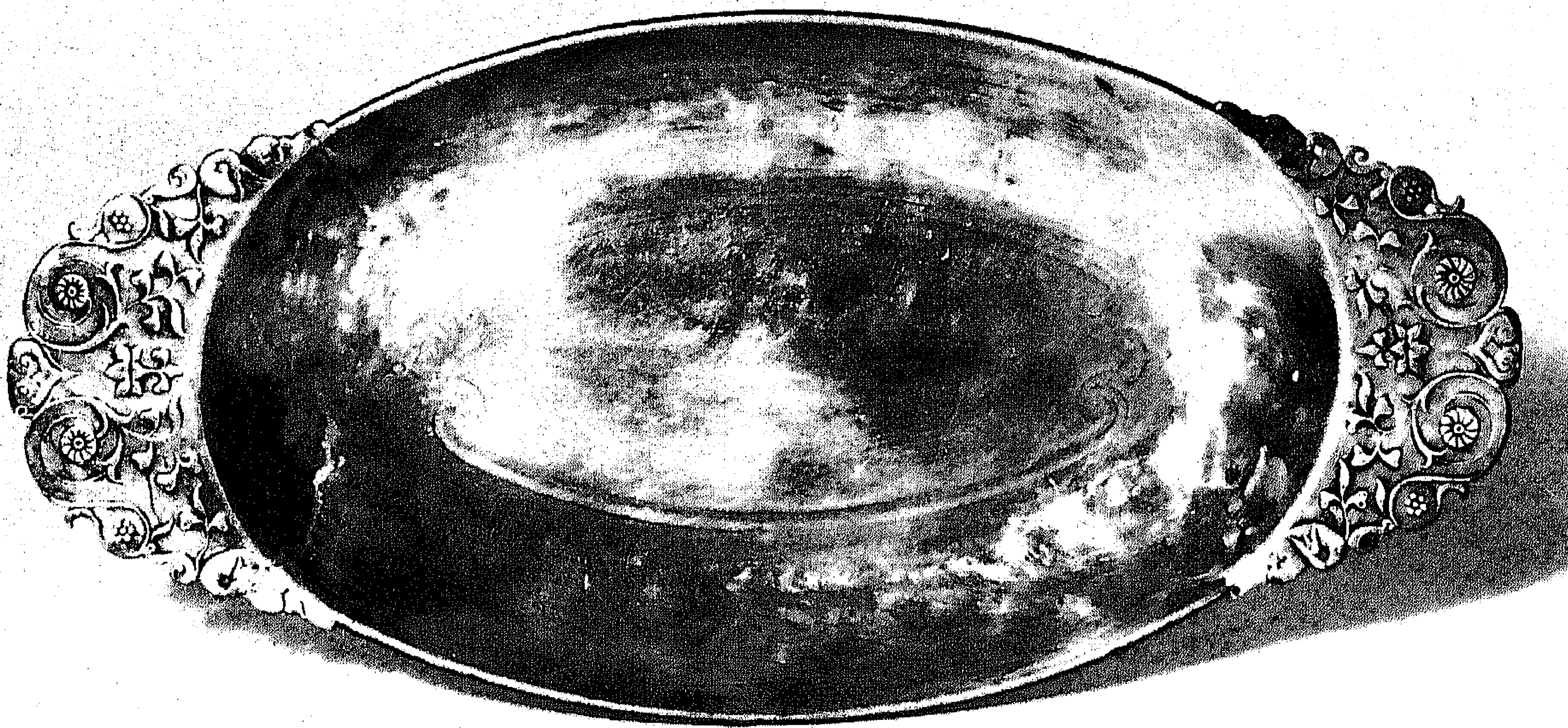


Fig. 6. Silver dish from the Manching hoard, the decoration of which has similarities with that on the mould and the sherds of fig. 5. Photo Prähistorische Staatssammlung, Munich.

made in lasting materials, and may, therefore, have been in use for some time. There is also the possibility that existing metal reliefs were repeatedly copied by casting or otherwise imitated. The Holdeurn sherd in question makes it likely that the prototype for the decoration on the Manching silver dish should be sought in the first century.¹¹

The form Holwerda, 1944, 5, may also be ornamented with more varied scenes. Holwerda mentions pieces with depictions of the she-wolf with Romulus and Remus (Holwerda, 1944, pl. 11, 13) and there is also a rim (fig. 5,2) which must have come from the same mould as the fragment from the sewer in the Praetoriumstraat.¹² Furthermore, we now possess the matrix used to shape such rims (fig. 5,3). The matrix is in Rijksmuseum G.M. Kam, in a cigarbox labeled 'No. 10, Holdeurn 1940-G7f', together with a fragment of a figurine mould. In all probability this piece also came from the pottery workshop on De Holdeurn. It is a sickle-shaped object made of white pipe-clay. A graffito PRISCI was scratched with a blunt implement on the reverse of the matrix, prior to firing. The shape of the decorated rim was taken from an existing model, perhaps from a bronze or silver vessel. This could also account for some angular projections which would have been rather difficult to imitate in clay. A groove along the interior of the matrix could be explained by a ridge inside the rim of a metal vessel. Instead of pressing a metal object in the still soft clay of the mould, the rim could perhaps have been made by means of a pottery matrix. Similar flat shapes, without relief, are known from the Central Gaulish pot-

teries at Toulon-sur-Allier and Lezoux where bronze vessels with richly decorated handles were imitated in terra sigillata. The reliefs on these handles were applied individually, in the same way as those in the terra sigillata moulds (Vertet, 1972, p. 35, pl. 2. For a similar patera in Wetterau ware see Betterman, 1934, p. 120, fig. 12).

The actual decoration of our piece appears to have been constructed by means of individual stamps and spatula impressions. Little depressions around some of the figures could have been formed by pressure from the edge of the stamp. Some of the leaves are so undercut that they are unlikely to have been taken from a metal relief in its entirety.

3. Holdeurn or Nijmegen ware?

The pottery which we at present fairly generally term 'Holdeurn' was not always so called. Prior to the excavations on De Holdeurn, the fine ware was referred to as 'fine Nijmegen' and the coarse red gritted-ware was described as 'brick-like' pottery (Daniëls, 1927, p. 92; Vermeulen, 1932, p. 68, 104; Brunsting, 1937, p. 132; Daniëls, 1955, p. 320, n. 20). After the excavation of the kilns, Holwerda considered that both the fine Nijmegen ware and the 'brick-like' pottery could in future be classed together as 'Holdeurn ware' (Holwerda, 1944, p. 4). Daniëls did not share his certainty, on account of the absence of wasters and, like Brunsting, continued to speak of 'fine Nijmegen' ware (Daniëls, 1955, p. 320; Brunsting, 1969, p. 34).

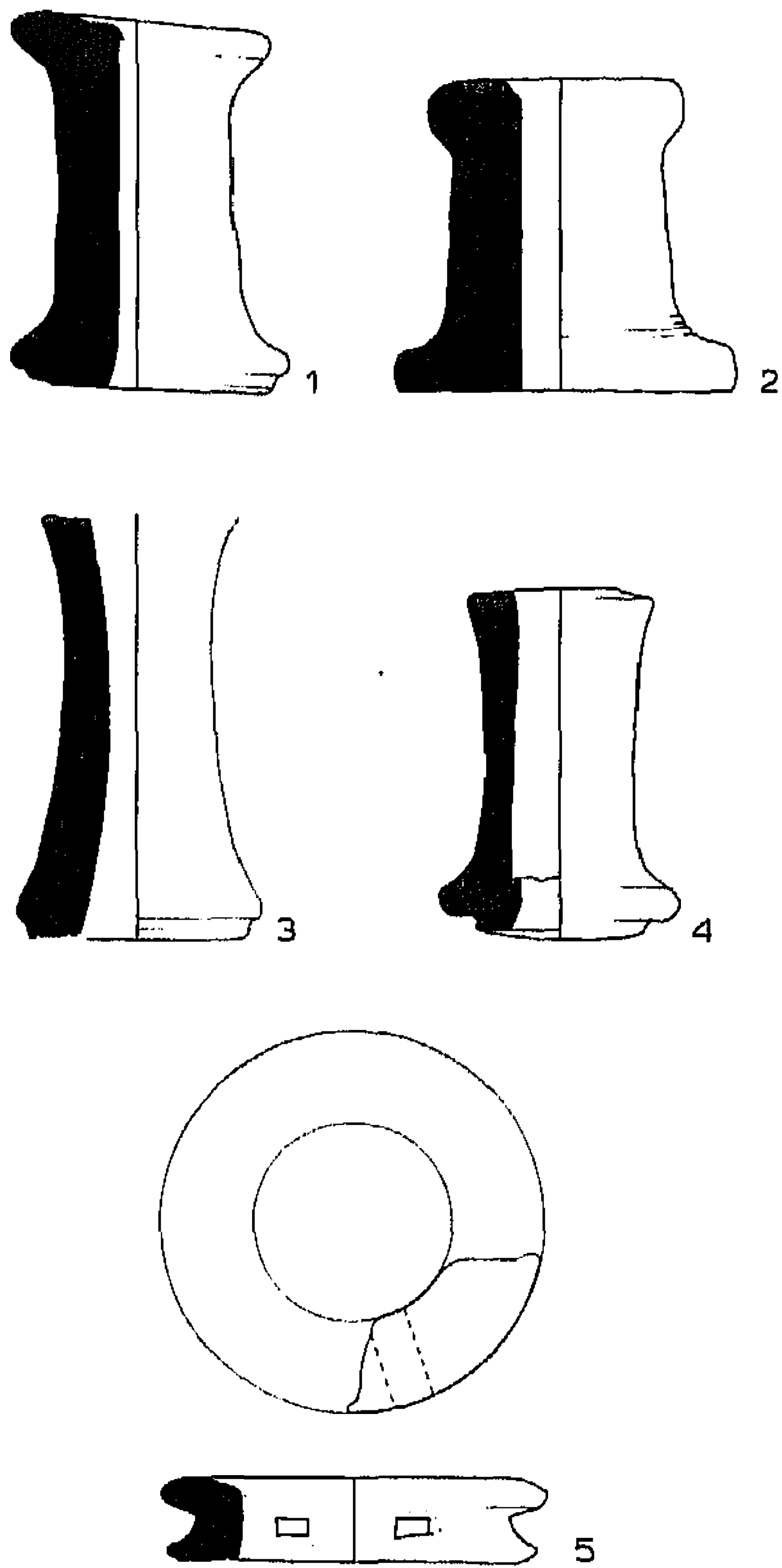


Fig. 7. Pottery spacers from Nijmegen. 1. Sterreschansweg 24, 2. Nijmegen, Hoge Veld of the Canisiuscollege, 3. Woerden, 4. Bunnik-Vechten, 5. fragment of a circular saggar found below Nijmegen, Sterreschansweg 6. Drawing OGA, 1:4.

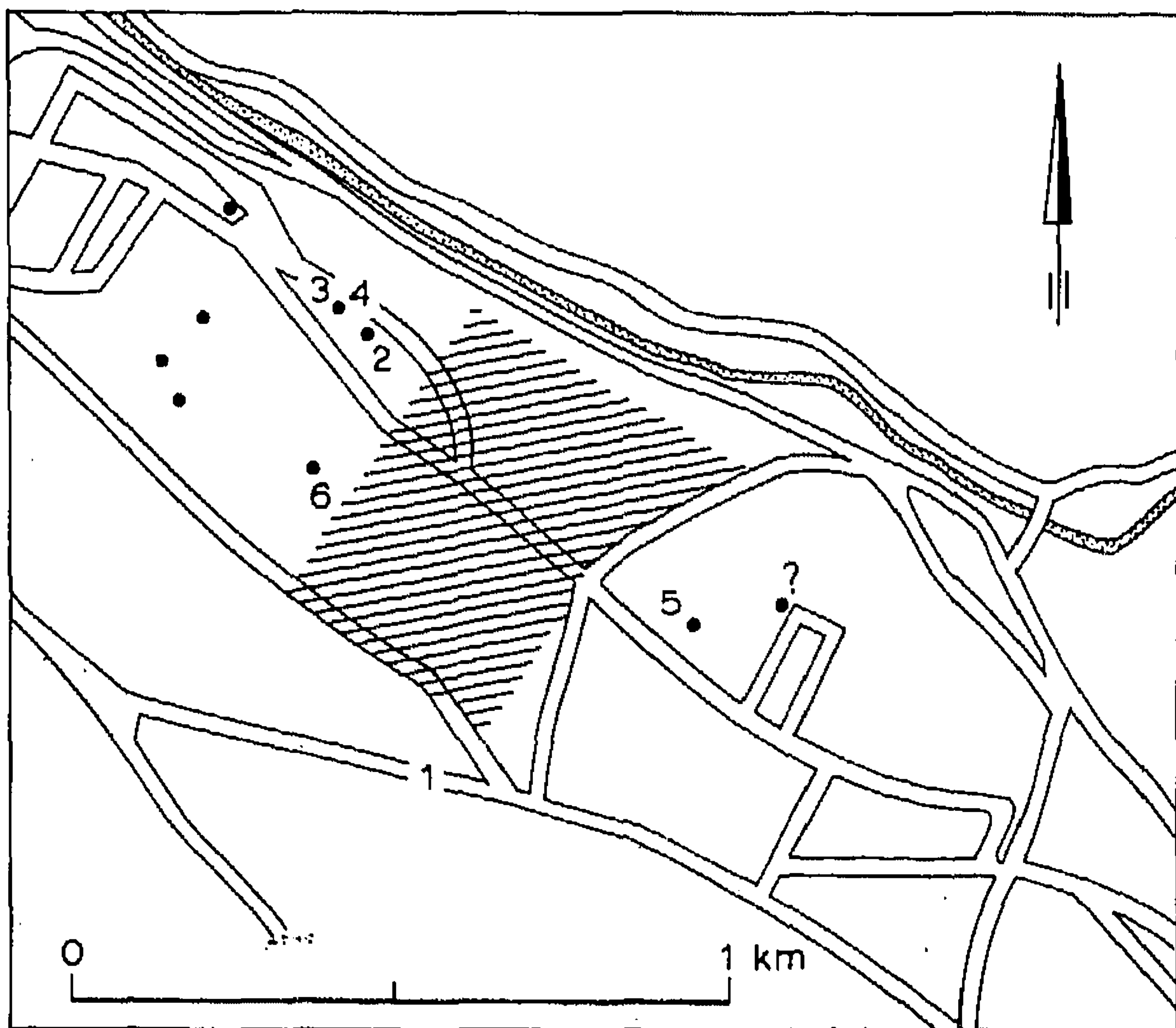


Fig. 8. Map of the Hunerberg and environs with the location of finds (1-6) indicative of potting activities. See p. 108, for the explanation of the numbers. Finds of spacers are shown by a dot. The area of the final legionary fortress (per. 5) is shaded. Drawing OGA.

With reference to the problem of the location of the potteries producing Holdeurn ware, we must, at this point, draw attention to some finds from the neighbourhood of the fortresses on the Hunerberg, which have never been included in the discussion, namely, a few fragments of moulds and some kiln refuse. Originally it was thought that the pottery spacers (fig. 7, 1-4) commonly found in and around the fortress,¹³ were associated with the Roman potting activities. On account of the numbers of these objects found on De Holdeurn, Braat considered that they were used as kiln supports.¹⁴ However, examples from England, Germany and Rumania¹⁵ indicate that they were probably used in the construction of cavity walls, cramp-irons being stuck into the spacers so that wall-tiles could be so attached that a cavity remained to allow the passage of warm air from the heating system or to insulate against dampness (for reconstruction see Money, 1974, fig. 2; Metzler & Zimmer, 1975, pp. 442-443). This combination of tiles and spacers was used in the same way as the tegulae hamatae¹⁶ and the tubuli. It is, of course, theoretically possible that the spacers were used to make kilns with cavity walls,¹⁷ but at the moment there is no evidence for such a practice.

Fig. 8 is a plan of the final fortress at Nijmegen (per. 5) and its immediate neighbourhood, showing the location of the finds of moulds and wasters which might indicate the presence of potteries. To date, such material seems only to have turned up outside the walls of this fortress, though partially within the area of the earlier and larger fortresses (pers 1-3). This might be evidence for the manufacture of 'Holdeurn ware' in the life of the stone fortress, or in that of the preceding wood and earthen camp (per. 4), which was roughly of the same dimensions. The kilns, in this case, would have been situated not in the fortress itself but in the *canabae legionis*, as became general in the first half of the first century (von Petrikovits, 1960, p. 56. - For criticism see Baatz, 1964, p. 263). A few fragments have been found outside the area of both periods 4 and 5 and the earlier fortresses. The period in which these kilns were functioning cannot, therefore, be established with any certainty and the whole span of time between the Batavian revolt and the end of the final, stone-built fortress (per. 5) in the second century comes into consideration. Neither has it proved simple to reconstruct the products of these kilns. Sometimes it is uncertain whether a piece is indeed a waster and when it is, the sherd may be in such a vitrified condition that the ware concerned is unidentifiable. The best link is, perhaps, presented by the fragment of a mould (see below, no. 1) for the production of rectangular dishes of the same sort as that from the hand of M. Fabius Facetus.

Viewed together, the finds described below do indicate that Holdeurn pottery was manufactured in the Nijmegen fortresses, or in their immediate vicinity. 'Holdeurn' should, therefore, only be used as a general term for the

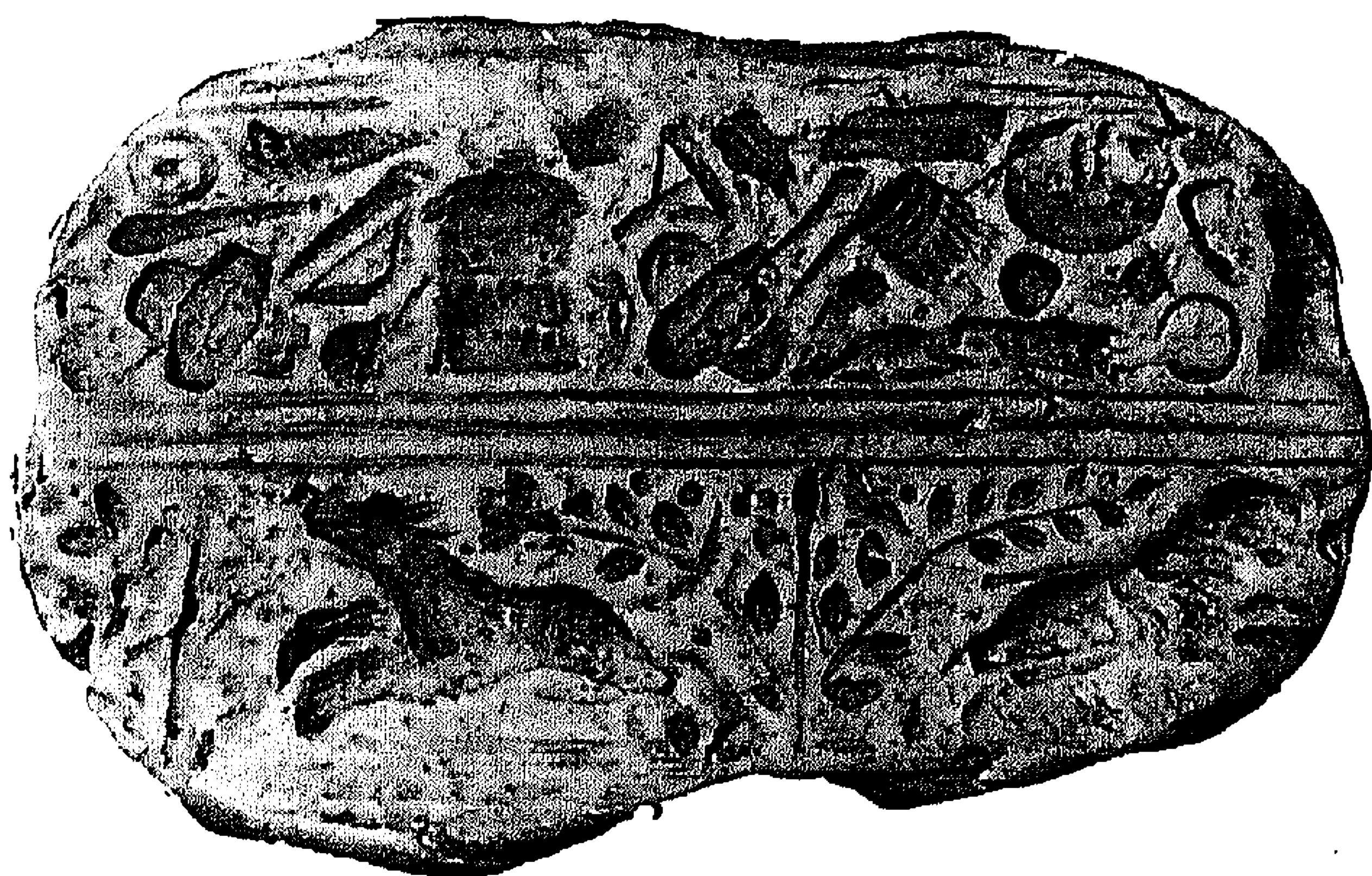


Fig. 9. White pipe-clay tablet for pottery decoration, found near the Sterreschansweg, Nijmegen (fig. 8,2). Photo Kath. Universiteit, Nijmegen, 1:2.

red ware manufactured in the legionary potteries in and around Nijmegen during the Flavian period and possibly into the second century.

Moulds and wasters from the fortresses at Nijmegen and their vicinity (the numbers correspond to those on fig. 8).

1. A fragment of a matrix of fairly hard, white, pottery, found in 1974, when the sewage system was laid in the Tooropstraat between the Berg en Dalseweg and the Acastraat, just S of the SE corner of the fortress (Rijksmuseum G.M. Kam inv. no. I.1976.4). The mould probably served to make the top of a rectangular dish with decorated edges. Remaining dimensions 13.5 × 8 cm. The only surviving corner is very rounded. Remarkable is the difference in finish between the outer and the inner surface. The outer surface – around which the dish was formed – is smooth and covered with a thin yellowish wash, while the inside is so roughly smoothed that finger impressions are clearly visible.

2. A remarkable white tablet (fig. 9) may perhaps also be regarded as a mould for pottery decoration. It was found in the '20's on the S side of the Sterreschansweg, probably to the W of houses nos 30 and 32 (Daniëls, 1955, p. 130; Rijksmuseum G.M. Kam inv. no. B.B.IX.29). The negative design consists of two friezes. On the lower half is a hunting scene with a running dog and tiger addorsed; a tree stands between the animals and at both ends of the scene. Daniëls' remark that the figures on it strongly recall those on terra sigillata must apply to this section, though there are no exact parallels. The upper half is of a totally different character. The motifs are not at all like those on terra sigillata, but seem rather to be inspired by monumental sculpture. The frieze is formed by a heap of weapons and other militaria such as cuirasses, oval and hexagonal shields, peltae,

greaves, spears, bows and a standard with boars. The whole thing is strongly reminiscent of reliefs like those on the triumphal arch in Orange for example (Amy et al., 1962, p. 77 ff.). As unusual as the design is the shape of the tablet. Though it has survived pretty well complete, there are no finished edges. The whole thing looks as though a ball of clay was flattened with a paddle and the sides were left as they were. So, in places the tablet failed to cover the whole decoration, and, for example, only half a cuirass appears on the right hand side of the upper frieze. It seems as though the mould was made by somewhat arbitrarily pressing the clay against an existing object. The resulting design – in surprisingly high relief – was certainly not complete in itself and required neatening up before it could have been applied to a vessel or to a stucco wall.

3. The wasters of cooking pots with everted rim Stuart, 1962, type 201A, already mentioned by Daniëls (1955, p. 130) and Stuart (1962, p. 72), came from the same area as no. 2. They were perhaps found a little more to the W, since, according to Daniëls, they appeared during the erection of a high telegraph post near the Batavierenweg. The fabric looks like the coarse Holdeurn gritted-ware on account of its orange-brown colour, but this could also be the result of an accident in firing.

4. Again on the S side of the Sterreschansweg, warped sherds of a fine Holdeurn ware bowl imitating Drag. 29, were found in 1970 during the construction of a cellar under house no. 6 (Haalebos, 1972, p. 41, 43). These must be wasters, unless the sherds are considered to have been burnt secondarily in the fires of the bronze-smithy, traces of which were found on the same site. Fragments of a saggur of red, brick-like pottery (fig. 7,5) and a few warped red sherds of coarse gritted cooking pots could come from the same kiln as the bowl.

5. During the construction of a boarding-school (De Sterreschans, Ubbergseveldweg 119–123) for the children of long-boatmen, to the E of the fortress in 1974, several sherds of a jug with a bipartite handle appeared (Rijksmuseum G.M. Kam, inv. no. I.1976.5). The shape of the jug is Stuart, 1962, type 109, which dates to the first quarter of the second century. It is, however, difficult to establish whether this is a Holdeurn product or a piece of smooth white ware. The fabric has been badly affected by heat, and the core is blue-grey, the surfaces red-brown. In hardness it is comparable to Rhineland stoneware and it is probably a waster.

6. In the autumn of 1975 a warped piece of a tegula, attached to a lump of black, vitrified material, was found in the upper levels of the ditch of the stone-built fortress on the Hoge Veld of the Canisiuscollege (find no. CA. 1975. 626.k; fig. 10). The tegula was stamped [L]XG. It would seem to be a fragment of the burnt kiln wall.



Fig. 10. Fragment of a vitrified kiln wall(?), with a piece of a warped tegula bearing the stamp [L]XG attached. From the ditch of the final fortress (per. 5) at Nijmegen (fig. 8,6). Photo Kath. Universiteit, Nijmegen, 1:2.

4. Export

In view of the difficulties arising from such a proposition, the question whether the pottery from the military kilns at Nijmegen was ever traded outside the immediate vicinity of the town has never been properly tackled. Brunsting (1937, p. 132) states simply, 'It is only found in Nijmegen'. Holwerda and Braat let matters well alone. The forts along the Rhine have produced remarkably little which might be classed as Holdeurn ware. From Valkenburg little or nothing is known. Only a few rather dubious pieces were found at Zwammerdam, but they included a complete bowl Drag. 27, of yellowish fabric (Haalebos, 1973, fig. 23,7), a plate Holwerda, 1944, type 37 and a red gritted-ware dish like Stuart, 1962, type 218. Amongst the published material from De Meern there is just a single undeterminable body sherd of fine 'Nijmegen ware', but recent excavations have turned up a few more (Jongkees & Isings, 1963, p. 72: H. 474; oral communication C. A. Kalee). Even in settlements closer to Nijmegen, such as Maurik and Cuijk, Holdeurn ware is exceedingly rare.¹⁸ So it was all the more surprising when so many sherds of Holdeurn (?) ware turned up in Woerden. A thick deposit of Roman refuse was cut into near shattering along the bank of a former channel of the River Linschoten (?), in the vicinity of the not yet definitely located fort (Laurum?) (Bogaers & Haalebos, 1975c). The majority of finds dates from the time of Nero and the Flavii. All three categories

of Nijmegen or Holdeurn ware described above – fine, coarse gritted-ware and jugs – are represented amongst the sherds which might have come from these kilns. For the most important pieces, see fig. 11.

1-2. Bowls of fine ware with angular rim, Holwerda, 1944, type 29. In the Netherlands, such shapes are virtually exclusive to products of De Holdeurn. In Vindonissa, a related piece is classed with the terra sigillata imitations, which are often difficult to distinguish from the 'rot überfärbte und geflammte Ware'. This latter group is supposed to have been manufactured by the Legio XI Claudia which was stationed in Vindonissa throughout the Flavian period (Ettlinger & Simonett, 1952, pp. 57-65, 75, no. 416).

3. A straight-sided beaker with the remains of a red slip, rather like Holwerda, 1944, type 7.

4-5. Cooking pots of gritted red ware, which are closely related to the grey vessels Stuart, 1962, type 201, though the internally grooved rim, as in no. 5 is not usual in this type. A similar profile does, however, occur amongst the Holdeurn cooking vessels illustrated by Holwerda (Holwerda, 1944, pl. 4, 299, 301).

6-8. Coarse red bowls of a red, gritty fabric like Holwerda, 1944, type 66, both with and without grooves along the top of the rim. Similar bowls, which bear a strong resemblance to the form Stuart, 1962, 210, made in grey gritted-ware, are also reported from York (Addyman, 1974, fig. 9, 1-4).

9-10. Coarse, gritted red dishes with simple rim, one of which (no. 9) is of an exceptionally coarse fabric.

11. A heavy dish with flat base and horizontal flange. A fragment of a dish of this rare shape is known from Nijmegen (Holwerda, 1944, pl. 10, 461). Comparable pieces are also known from Vindonissa, Hofheim and Mainz (Ettlinger & Simonett, 1952, pl. 8, pp. 133-134).

12. Mortaria with horizontal rim. In one case the base seems to have been blackened by fire, this one is also worn through with use.¹⁹

The presence of this relatively large group of ware resembling Holdeurn products in Woerden is difficult to explain. An association with the auxiliary unit stationed at Woerden during the Flavian period, the Cohors XV Voluntariorum might be considered (Bogaers & Haalebos, 1975c). The Cohortes Voluntariorum civium Romanorum were formed by Augustus in the troubled time of the Pannonian rebellion and the defeat of Varus in 9 AD. Freedmen were accepted in these cohorts since there were insufficient Roman citizens (Alföldy, 1968, p. 76; Le Glay, 1972, p. 210). Later, these cohorts were chiefly recruited amongst Roman citizens, but in the second half of the first century recruits without citizenship – peregrini – were occasionally accepted once more.²⁰ Hence the Cohortes Voluntariorum held a rather exceptional position amongst the other auxiliaries which, by the first century, were composed chiefly of peregrini. In certain respects they were

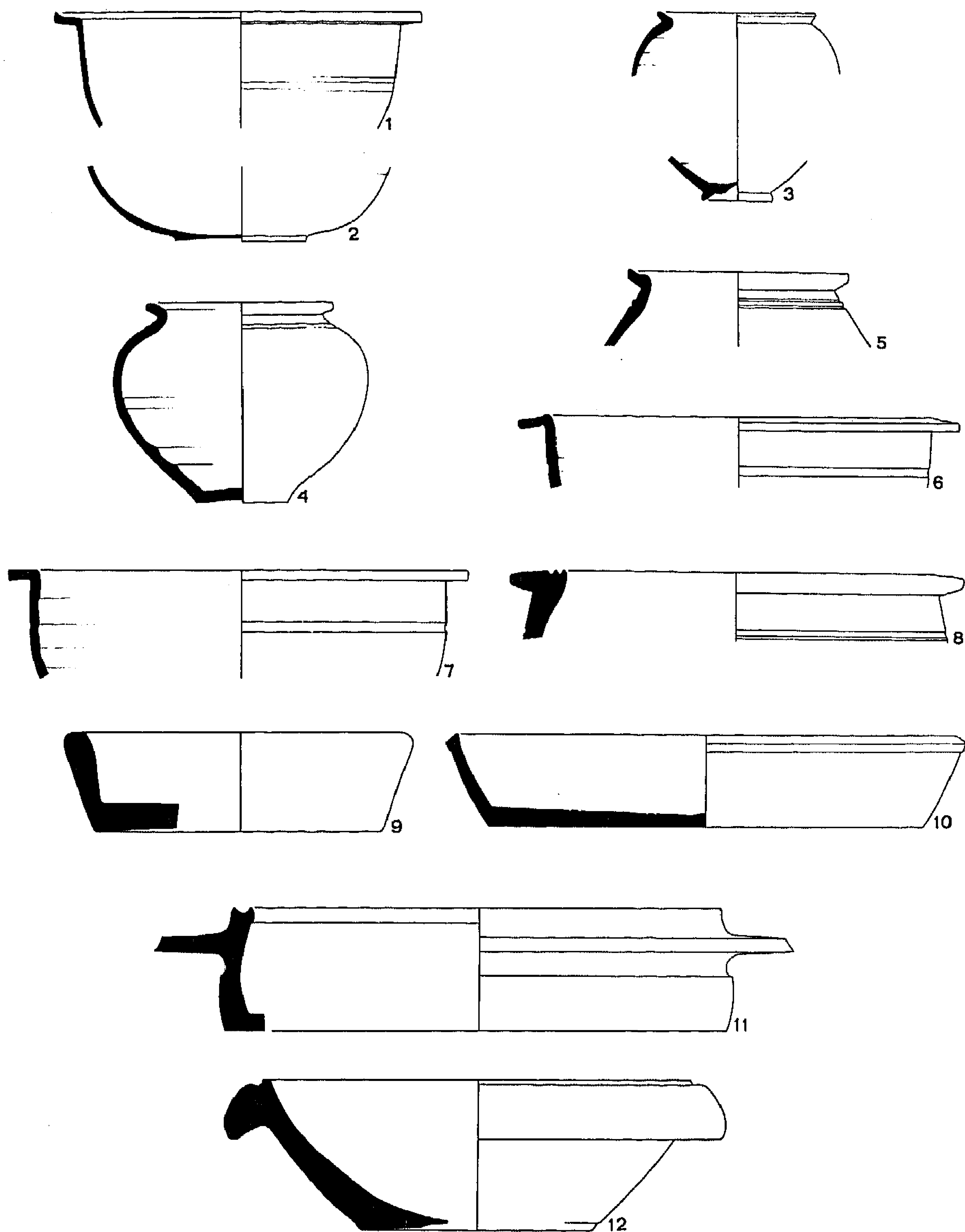


Fig. 11. Examples of 'Holdeurn' ware from Woerden. 1-2. fine ware, the remainder coarse gritted-ware. Drawing OGA, 1:4.

treated as the equals of the legionaries. After the death of Augustus, for example, the soldiers of the *Cohortes civium Romanorum* received a donative equal to that of the legionary soldiers (Tacitus, *Annales* I, 8; Le Glay, 1972, p. 217). The command of the *Voluntarii* was usually in the possession of a tribune and not of a praefect, as was normal for *cohortes quingenariae* of the other auxiliaries.²¹

Perhaps the mode of supply to the *Voluntarii* was differently organized to that of the other auxiliaries, and this

may have meant that the products of the legionary potteries at Nijmegen and De Holdeurn could reach Woerden more easily. On the other hand, the various tile stamps of the *Cohors xv Voluntariorum* found at Woerden indicate that the unit probably manufactured its own tiles. In this case, it is equally possible that they also produced pottery to meet their own needs, and, consequently, that the 'Holdeurn' ware from Woerden is in fact a product of local kilns.²²

Notes

1. Holwerda & Braat, 1946; see also Holwerda, 1944. Stamps of the Legio x Gemina on pottery: Daniëls, 1927, pp. 92–93; Holwerda, 1944, p. 25, pl. 13; Holwerda & Braat, 1946, pl. 27,3; Bogaers, 1967, p. 71, pl. 5,5. A die with the text LXGPF was also found on De Holdeurn; see Holwerda & Braat, 1946, p. 38, pl. 20,2, 3a–b. See further fig. 2,2. The term Holdeurn and (fine) Nijmegen ware are discussed further on pp. 106–108.
2. This type is not mentioned by Holwerda, but see Vermeulen, 1932, p. 74, type 59, and a virtually complete bowl 7.1961.1 in the Rijksmuseum G.M.Kam, from the Ubbergseveldweg. Pillar moulded bowls are also imitated in a smooth, white ware (La Baume, 1964, pp. 13–14, fig. 9). Further, see Verslag 1923, p. 9; Ettlinger & Simonett, 1952, p. 63, fig. 20,1–6; Isings, 1970, figs 1–2; Greene, 1972, p. 13, for other glass shapes imitated by legionary potters.
3. Loeschke, 1909, pp. 240–242, type 58, fig. 32; Bruckner, 1975, p. 89, type 13. Sherds of this type from the sewer of the last fortress at Nijmegen CA. 1974.280.eeee and 348.eeg. Similar rims have also been found on De Holdeurn (cf. Holwerda, 1944, p. 35, type 61).
4. See Bogaers & Haalebos, 1975a, for an interim report.
5. Holwerda & Braat, 1946, p. 39. A pipe-clay mould for the disc of a lamp (Rijksmuseum G.M.Kam inv. no. D.VIII.2, XIX.a.17, H.562) bears the graffito ALBINI, its find spot is uncertain. See Evelein, 1928, p. 65, pl. 17,8,2.
6. Previously published in Van Es, 1972, p. 193, fig. 136. A second lamp with a similar graffito [L]XG[PF] is also in the possession of the Rijksmuseum G.M.Kam (inv. no. 6.1971.7).
7. Daniëls (1955, p. 324) considers the possibility that these men were neither potters nor working locally.
8. Venusia: CIL IX, 460; 550; Milano: CIL V, 6125; Formiae: CIL X, 6186; CIL VII, 1336, 445 possibly identifies a seventh Facetus (?) as the maker of a dish found in London. The stamp OFFACE(ti) is, however, sooner associated with the potter Flavius Germanus, who frequently ligates F and L (cf. Oswald, 1931, p. 125: Amiens (OF FACE)).
9. Holder, 1896, p. 352. A potter called Baro was active in N Britain and in Colchester in the second century (Dickinson & Hartley, 1971, p. 138).
10. Soldiers of the Legio x Gemina in Nijmegen are recorded as coming from, for example, Astigi, Augusta Taurinorum, Brixsa, Calagurris, Emona(?), Tolosa, Verona and Alba Helvetiorum or Iulia Apta. See CIL XIII, 8283; 8732–8736; 8741(?); 12086; Bogaers & Haalebos, 1975a, p. 15, fig. 10. For further information regarding the origin of the soldiers of the Legio x, see Forni, 1953, pp. 228–229.
11. Krämer, 1958, figs 22–23; Linfert, 1975, p. 133, fig. 175; Werner (1938, p. 259) assumes – just as La Baume (1964, p. 144) – that the silver dishes of this type were made primarily in the second century. He considers the imitations in (silver-plated) bronze to be later. See further Eggers, I, 1951, p. 170, appendix 51; Radnóti, 1965; Strong, 1966, pp. 171–172. The oval dishes described by the latter are completely dissimilar in their decoration to the dish from Manching. On stone moulds for rims and handles of metal vessels see Schreiber, 1894, pls 1–3; on the origin of the decoration see Radnóti, 1965, p. 220: 'Das [Kantharos-Ranken-]Motiv dürfen wir mit anderen symmetrischen Rankenverzierungen von hellenistischen Vorlagen ableiten, die im 1. Jahrh. n. Chr. von Italien nach Gallien überpflanzt wurden'.
12. Holwerda, 1944, pl. 10, 14; Rijksmuseum G.M.Kam inv. no. III.163, according to the inventory, from the Hunerberg.
13. Holwerda & Braat, 1946, p. 33, no. 9: cylindrical objects of baked clay, about 8 cm in length. The function of these things, which are almost invariably found near Roman pottery kilns, is not precisely known. They were probably used as distance pads and supports for the pottery in the kiln; *ibid.* p. 59, no. 20. Cf. also Holwerda, 1944, p. 5,1; Breuer, 1931, pp. 72–74.
14. For published examples see Abeleven & Bijleveld, 1892, p. 86, 5–6, 8 (probably a candle-stick); Vermeulen, 1932, p. 120, type 108; Breuer, 1931, pp. 72–74, pl. 9, 40, 47. In addition, there are several unpublished spacers in the Rijksmuseum G.M.Kam from the cemeteries E and S, from the Hunerberg, the Barbarossastraat, the Sterreschansweg, the neighbourhood of the Klokkenberg and from the Canisiuscollege: inventory nos: IX.6, 7, XVI.4.E, XVI.1.S, 12.1943.24, 11.1952.118 (2 eggs), 10.1973.11 and a piece in the box GM 157. In the Netherlands similar spacers have been found in Heerlen (inv. no. 7984), Cuijk (excavation ROB, find no. 1964.111), Nijmegen-west (see J.T.J. Jamar & J.R. Thijssen, *Nieuwsbull. KNOB*, 1968, p. 85), Woerden (WRD. 1975.56.e) and Bunnik-Vechten (Collection PUG, Ve.1926.4). About 60 of them were found together in Bunnik-Vechten; see, for e.g., fig. 7,4.
15. Koenen, 1904, p. 202: 'zahlreiche röhrenförmige Pfeilerchen aus Ziegelerde, Pila, zum Teil noch mit den eisernen Klammerresten gefunden (...). Es müssen in den Thermen somit Doppelwände vorhanden gewesen sein'. See further Money, 1974, p. 278 ff. and the references cited there.
16. Baatz, 1970, p. 46, fig. 6. For the use of tegulae hamatae (or mammatae) in cavity walls, see Vitruvius 7, 4, 1.
17. Forrer, 1911, p. 58 ff.: 'Die Tonrollen (5½ zu 7 cm) könnten als Brennstände Verwendung gefunden haben oder als Zwischenglieder, wo eine horizontal gelegte äussere Ziegellage von einer inneren in einem gewissen Abstände gehalten werden sollte (z.B. bei einer doppelten Ofendecke, damit die Hitze nicht zu rasch nach aussen verflüchtigte)'.
18. Maurik: a fragment of a platter of fine Holdeurn ware, Holwerda, 1944, type 37. Only the fine mortarium with horizontal flange and lip (excavation ROB find no. 1964.221) like Holwerda, 1944, type 10, is worth mentioning from the very small number of Holdeurn sherds from Cuijk.
19. The Holdeurn ware sherds illustrated bear the following find numbers: 1. WRD.1975.35.ec; 2. WRD.1975.20.e; 3. WRD.1975.21.ea; 4. WRD.1975.21.e; 5. WRD.1975.4.e; 6.

- WRD.1975.35.e; 7. WRD.1975.21.eb; 8. WRD.1975.21.ec; 9. WRD.1975.4.ea; 10. WRD.1975.65.e; 11. WRD.1975.66.ea; 12. WRD.1975.34.e. Upon completion of the report, the finds from the Woerden excavations will be handed over to the Rijksmuseum van Oudheden in Leiden.
20. Cf. the military diploma CIL XVI, 38 of 13 July 93, whereby citizenship is granted to 'peditibus et equitibus qui militant in cohorte III Alpinorum et in VIII Voluntariorum civium Romanorum qui peregrinae condicionis probati erant'. See also Le Glay, 1972, p. 218.
21. For a summary of the commanders of the Cohortes Voluntariorum, see Le Glay, 1972, pp. 213-216.
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References

- ABELEVEN, TH. H. A. J. & C. G. J. BIJLEVELD (1895) *Catalogus van het Museum van Oudheden te Nijmegen*. Nijmegen, 1895.
- ADDYMAN, P. V. (1974) Excavations in York, 1972-1973, first interim report. *The Antiquaries Journal* 54, 1974, pp. 200-231.
- ALBRECHT, CHR. (1942) *Das Römerlager in Oberaden und das Uferkastell in Beckinghausen an der Lippe, II*. Dortmund, 1942.
- ALFÖLDY, G. (1968) *Die Hilfstruppen der römischen Provinz Germania inferior*. Düsseldorf, 1968.
- AMY, R., P.-M. DUVAL, J. FORMIGÉ, J.-J. HATT, G.-CH. PICARD & A. FIGANIOL (1962) *L'arc d'Orange*. Gallia, supplement 15, 1962.
- BAATZ, D. (1964) Zur Frage augusteischer canabae legionis. *Germania* 42, 1964, pp. 260-265.
- BAATZ, D. (1970) Späthadrianische Ziegelstempel der 8. Legion von der Saalburg. *Saalburg-Jahrbuch* 27, 1970, pp. 31-53.
- BAUME, P. LA (1964) *Römisches Kunstgewerbe zwischen Christi Geburt und 400*. Braunschweig, 1964.
- BETTERMAN, K. (1934) Die bemalte Keramik der frühen römischen Kaiserzeit im rheinischen Germanien. *Saalburg-Jahrbuch* 8, 1934, pp. 97-129.
- BOGAERS, J. E. (1961) Civitas en stad van de Bataven en Canninefaten. *Ber. ROB* 10-11, 1960-1961, pp. 263-317.
- BOGAERS, J. E. (1967) Die Besatzungstruppen des Legionslagers von Nijmegen im 2. Jahrhundert nach Christus. In: *Studien zu den Militärgrenzen Roms*. Vorträge des 6. internationalen Limeskongresses in Süddeutschland. Beihefte BJ 19. Köln-Graz, 1967.
- BOGAERS, J. E. & J. K. HAALEBOS (1975a) De Nijmeegse legioensvestingen vanaf 70 na Chr. *Numaga* 22, 1975, pp. 1-20.
- BOGAERS, J. E. & J. K. HAALEBOS (1975b) Problemen rond het Kops Plateau. *OMROL* 56, 1975, pp. 127-178.
- BOGAERS, J. E. & J. K. HAALEBOS (1975c) Woerden. *Bull. KNOB* 74, 1975, pp. 223-224.
- BREUER, J. (1931) Les objets antiques découverts à Ubbergen près Nimègue. *OMROL* 12, 1931, pp. 27-121.
- BRUCKNER, A. (1975) *Novaesium VI. Gebrauchskeramik aus zwei augustischen Töpferöfen von Neuss*. (Limesforschungen 14.) Berlin, 1975.
- BRUNSTING, H. (1937) *Het grafveld onder Hees bij Nijmegen*. Amsterdam, 1937.
- BRUNSTING, H. (1969) *400 jaar Romeinse bezetting van Nijmegen*. Nijmegen, 1969³.
- BUCHHEM, H. J. H. VAN (1941) *De fibulae van Nijmegen I, inleiding en kataloog*. Nijmegen, 1941.
- CIL *Corpus Inscriptionum Latinarum*.
- DANIËLS, M. P. M. (1927) *Romeinsch Nijmegen, II, Ulpia Noviomagus*. *OMROL* 8, 1927, pp. 65-115.
- DANIËLS, M. P. M. (1955) *Noviomagus, Romeins Nijmegen*. Nijmegen, [1955].
- DICKINSON, B. M. & K. F. HARTLEY (1971) The evidence of potters' stamps on Samian ware and on mortaria for the trading connections of Roman York. In: R. M. Butler (ed.), *Soldier and civilian in Roman Yorkshire*. Leicester, 1971, pp. 127-142.
- DRAGENDORFF, H. (1895) *Terra sigillata*. *BJ* 96-97, 1895, pp. 18-155.
- EGGERS, H. J. (1951) *Der römische Import im freien Germanien, I-II*. Hamburg, 1951.
- ES, W. A. VAN (1972) *De Romeinen in Nederland*. Bussum, 1972.
- ETTLINGER, E. & CHR. SIMONETT (1952) *Römische Keramik aus dem Schutthügel von Vindonissa*. Basel, 1952.
- EVELEIN, M. A. (1928) *Beschrijving van de verzameling van het Museum G. M. Kam te Nijmegen, de Romeinse lampen*. 's-Gravenhage, 1928.
- FORNI, G. (1953) *Il reclutamento delle legioni da Augusto a Diocleziano*. Milano-Roma, 1953.
- FORRER, R. (1911) *Die römischen Terrasigillata-Töpfereien von Heiligenberg-Dinsheim und Ittenweiler im Elsass*. Stuttgart, 1911.
- GLAY, M. LE (1972) Le commandement des cohortes voluntariorum de l'armée romaine. *Ancient Society* 3, 1972, pp. 209-222.

- GREENE, K. T. (1972) X Gemina at Nijmegen and in Spain; a ceramic connection. *Numaga* 19, 1972, pp. 11-13.
- HAALEBOS, J. K. (1972) Nieuws uit de Nijmeegse castra. *Numaga* 19, 1972, pp. 41-44.
- HAALEBOS, J. K. (1973) *De Romeinse castella te Zwammerdam* Z.H. Unpublished thesis. Amsterdam, 1973.
- HAALEBOS, J. K. (1977) *Zwammerdam Nigrum Pullum. Ein Auxiliarkastell am niedergermanischen Limes. (Cingula 3.)* Amsterdam, 1977.
- HAGEN, J. (1912) Augusteische Töpferei auf dem Fürstenberg. *BJ* 122, 1912, pp. 343-362.
- HOLDER, A. (1896) *Alt-celtischer Sprachschatz I.* Leipzig, 1896.
- HOLWERDA, J. H. (1944) Het in de pottenbakkerij van De Holdeurn gefabriceerde aardewerk uit de Nijmeegsche grafvelden. *OMROL* 24, 1944, supplement.
- HOLWERDA, J. H. & W. C. BRAAT (1946) De Holdeurn bij Berg en Dal, centrum van pannenbakkerij en aardewerkindustrie in den Romeinschen tijd. *OMROL* 26, 1946, supplement.
- ISINGS, C. (1970) Some of the 10th legion's glass at Nijmegen. In: *Studies in Glass History and Design. Papers of the VIIIth Congress on Glass*, London, 1968. Old Wobing, 1970, pp. 9-11.
- JONGKEES, J. H. & C. ISINGS (1963) *Opgravingen op de Hoge Woerd bij De Meern (1957, 1960).* Groningen, 1963.
- KAJANTO, I. (1965) *The Latin Cognomina.* Helsinki, 1965.
- KOENEN, C. (1904) Beschreibung von Novaesium. *BJ* 111/112, 1904, pp. 97-242.
- KRÄMER, W. (1958) Manching, ein vindelisches Oppidum an der Donau. In: W. Krämer (ed.), *Neue Ausgrabungen in Deutschland.* Berlin, 1958, pp. 175-202.
- LINFERT, A. (1975) Römischer Tafelluxus, das Silbergeschirr von Manching. In: *Das neue Bild der alten Welt. Kölner Römer-Illustrierte* 2, 1975, pp. 132-133.
- LOESCHCKE, S. (1909) Keramische Funde aus Haltern. *Mitteilungen der Altertums-Kommission für Westfalen* 5, 1909, pp. 101-322.
- METZLER, J. & J. ZIMMER (1975) Öffentliche Bäderanlage und spätantike Baureste im gallo-römischen Vicus von Mamer. *Hémecht* 27, 1975, pp. 429-487.
- MONEY, J. H. (1974) Clay spacers from the Romano-British bath-house at Garden Hill, Hartfield, Sussex. *The Antiquaries Journal* 54, 1974, pp. 278-280.
- OSWALD, F. (1931) Index of potters' stamps on terra sigillata 'Samian ware'. Margidunum, 1931.
- PETRIKOVITS, H. VON (1960) *Das römische Rheinland. Köln-Opladen,* 1960.
- RADNÓTI, A. (1965) Eine ovale Bronzeplatte aus Regensburg. *Bayerische Vorgeschichtsblätter* 30, 1965, pp. 188-244.
- SCHNURBEIN, S. VON (1974) Bemerkungswerte Funde aus einer Töpferei des Hauptlagers von Haltern. *Germania* 52, 1974, pp. 77-88.
- SCHREIBER, TH. (1894) *Die alexandrinische Toreutik, Untersuchungen über die griechische Goldschmiedekunst im Ptolemaeerreiche.* Leipzig, 1894.
- SCHULZE, W. (1904) *Zur Geschichte lateinischer Eigennamen.* Berlin, 1904.
- STRONG, D. E. (1966) *Greek and Roman gold and silver plate.* London, 1966.
- STUART, P. J. J. (1962) Gewoon aardewerk uit de Romeinse legerplaats en de bijbehorende grafvelden te Nijmegen. *OMROL* 43, 1962, supplement.
- VERMEULEN, W. (1932) *Een Romeinsch grafveld op den Hunnerberg te Nijmegen (uit den tijd van Tiberius-Nero).* Amsterdam, 1932.
- VERSLAG. Verslag der commissie ter verzekering eener goede bewaring van Gedenkstukken van Geschiedenis en Kunst te Nijmegen.
- VERTET, H. (1972) Manches de patères ornés en céramique de Lezoux. *Gallia* 30, 1972, pp. 5-40.
- WERNER, J. (1938) Die römischen Bronzegeschirrdépôts des 3. Jahrhunderts und die mitteldeutsche Skelettgräbergruppe. In: E. Sprockhoff (ed.), *Marburger Studien.* Darmstadt, 1938, pp. 259-267.
- WYNIA, S. L. (1973) 'Aco-bekers' uit Nijmegen. In: W. A. van Es et al. (eds), *Archeologie en historie.* Bussum, 1973, pp. 393-398.