Study of the Merovingian production centre at Maastricht–Wyck

Line Van Wersch

The Merovingian pottery workshop that is the subject of this paper was discovered in 1991 and appears to date to the 6th or 7th centuries AD. It was discovered in the quarter of Maastricht–Wyck on the west side of the river, on the site of a 19th-century ceramics factory. The technology of the kilns, the nature of the fabrics and vessel typology are all considered in this paper. This piece of work marks the start of a thesis on Merovingian ceramics in the Mosan valley.

Introduction[1]

Maastricht lies on the Meuse in the south of Netherlands, between the plateau of the Ardenne and the Campine depression. Many excavations have revealed a medieval occupation on the both river sides. On the left side, the fortification of the 5th century stayed in use until the 7th century. On the right side, the existence of a double wall is probable because the roman bridge crossing the river was still in use in the 13th century (Figure 1).[2]

During the 6th and 7th centuries, the south area, near Notre-Dame, was occupied by the bischop's palace. The king, Childebert II, also took up residence in the town and it became the 'place to be' for the Merovingian aristocracy. During this period, it was an important economic centre. Its economic importance is namely reflected by the road system and the markets on the left bank of the river. Crafts activities have been recorded in many locations: glass-making was found in the quarter of Boschstraat and Derlon, metallurgy in Boschstraat, Derlon, Witmakerstraat and Rijksarchief (Figure 1). Ceramic production is attested in Lage Kanaaldijk and in Wyck.[3] Maastricht was clearly one of the most important economic, politic and religious center in the Mosan valley.

The Merovingian pottery workshop that is the subject of this paper was discovered in 1991, in the quarter of Wyck on the west river side, on the site of the 19th-century ceramics factory. The excavations were led by the archaeological department of the municipality[4] and I want to thank the members of this department, especially W. Dijkman, its Curator, who gave me acces to revelant material and documents. The study presented in this paper is the begining of a thesis on the Merovingian ceramic in the Mosan Valley. It is dus far away to be complete. Its first aim was to approach the kilns and their production to characterise the pottery made on this site.

The kilns

Four kilns were discovered during the 1991 excavations, beneath the 14th-century city wall. All four pear-shaped structures were in good state of preservation, and located close to each other.[5] Their orientations varied: two were open to the west, one to the north and one to the south. While there is little indication of a well thought-out relationship between these kilns, they could have operated simultaneously, and been contemporary (Figure 2).

The plans and dimensions of the structures were very similar. The service area retains no particular furniture. About 1 m long and 0.8 m wide, it provideed acces to the stoke-hole, just in front of the baking chamber still visible in the four cases. This area was between 2.6 m and 1.8 m long by approxymatly 1.5 m wide and was divided in two parts by a tongue constructed from stones, clay and wasters. This small tongue may originally have supported the dome (destroyed in each case). The base of this roof is preserved in kiln 1. This base was made of stone (sand-stone and flint) and probably supported the dome made of clay.[6]

The Maastricht kilns were most likely through-draught. During the excavations, absolutly no pieces of the sole, of a 'grid' or even of pipe were found[7]. They were certainly in one volume and the vessels to be fired were stacked directly on the oven floor as proposed by W. Dijkman and W. Janssen.[8] Even if some Merovingian kilns were updraught,[9] these of Maastricht were not. The absolute lack of sole and the similarity with these of Kreffel–Gellep and Geseke[10] should confirm this.

The walls of the firing chamber were lined with a combination of clay and sherds.[11] The dome needed to be airtight for a good draught and thermal isolation.[12] In Wyck, the traces of a second relining of clay and sherds were found on the walls and the floor of baking chambers.[13]

Excepted for two postholes around kiln 2, the four kilns were the only remain of the Merovingian potters' activities on the site, having been preserved beneath the 14th-century walls.[14] Other kilns may originally have

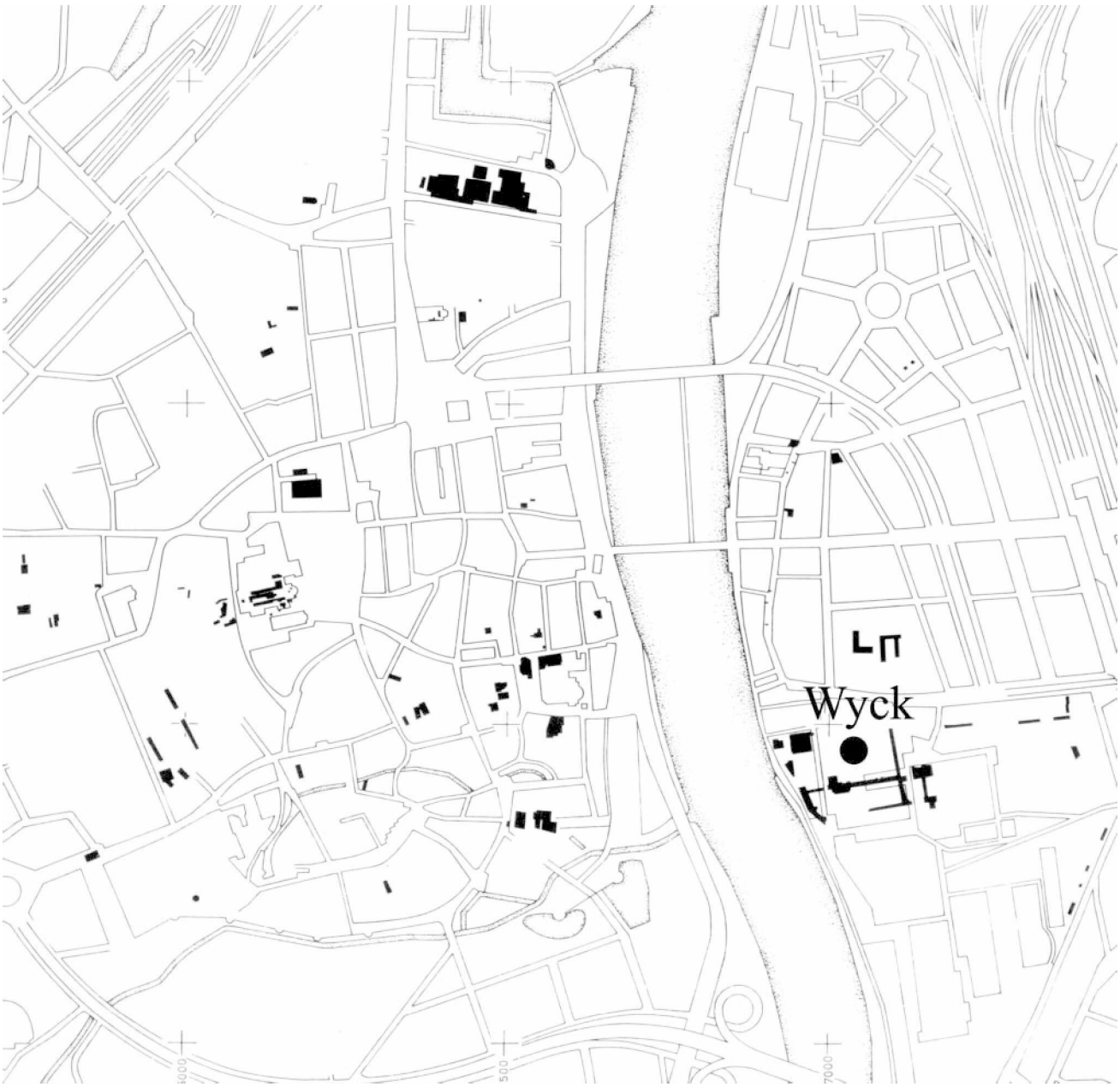


Figure 1
Plan of Maastricht. Drawing by GOBM

existed alongside workshop and drying areas may originally have existed alongside, as observed in the workshop of La Londe in France.[15] The two surviving postholes were probably to hold posts to support a sloping roof: a common feature in the north of Europe to protect fuel and stocker from the rain.

The four kilns were full of wasters and fired clay from the superstructure. It appears that the kilns were backfilled after their abandonment with wasters. Cross-fits between sherds from different dumps suggest that their abandonment was probably simultanous. They were probably filled in one time cause no layers were distinguish during the excavations. The chambers were also filled with large amount of earth and charcoal, from which radiocarbon dates have been obtained of between 540 and 660 AD.[16]

Material study

The quantity of pottery from this site is significant. The sherds, which were nearly all found in the kilns, may have been fired in any of the kilns or others which have since disappeard. For their study the production has been treated as a whole. For the creation of a typology and the statistical analysis, a computer data base was created (Figure 3). The criteria used to record the sherds are: General information (sherd context, inventory number), technologic criteria and morphologic criteria (forms description (Figure 4 and 5), dimensions and decoration). Using the data base, the sherds were sorted by technological criteria to define the fabrics and then morphological criteria to define the vessels

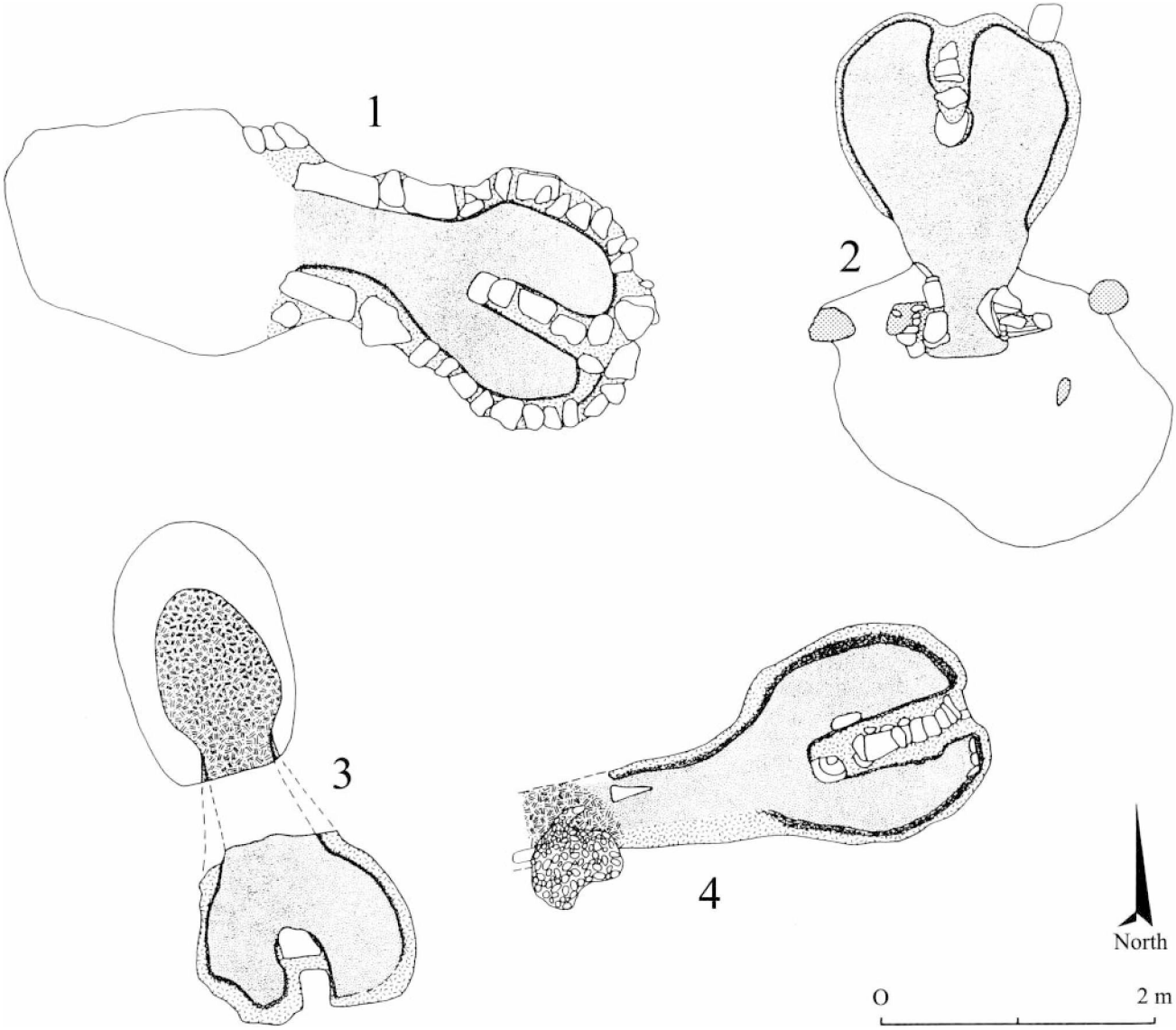


Figure 2
Plan of the four kilns. Drawing GOBM

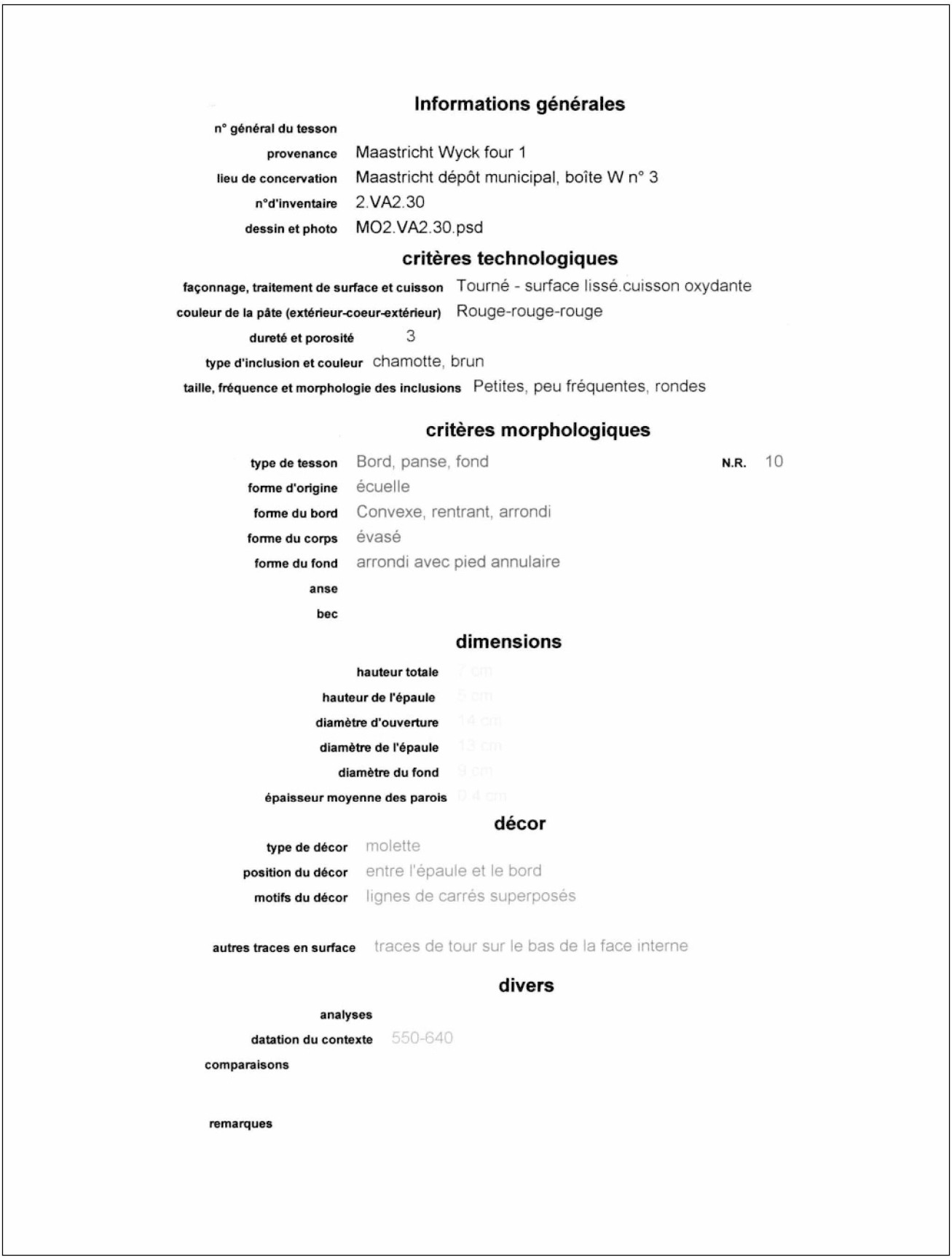
types. The database provided quantification of the diverse categories and their statistical treatment.

Fabrics

The criteria commonly taken into consideration in order to define fabrics are the firing conditions and temperatures, inclusions and matrix composition. For the production at Maastricht, the observable firing conditions were sometimes distorted throught deformation, some flaw in the firing, or overfiring. Matrix composition[17] has not been undertaken in this study because it needs chemical and geologic analyses in a laboratory.

The whole waster assemblage from Maastricht–Wyck is wheel thrown. Using paste caracteristics, surface treatment, and firing type, four groups have been distinguish (Figure 6):

i *Vessels with smooth surface and oxydizing firing*
The paste has generaly a red orange colour on the surface and in the core. Sometimes the core color is a little bit different from the surface. The paste is quite homogenous and contained very few and small inclusions visible in the core and nearly not on the surface. They are mainly iron oxydes and very small quartz pieces. The the outer surface of the vases is always smooth, sometimes polished. The firing in an oxydizing atmosphere is well done; the paste is quite



Informations générales

n° général du tesson	
provenance	Maastricht Wyck four 1
lieu de concervation	Maastricht dépôt municipal, boîte W n° 3
n°d'inventaire	2.VA2.30
dessin et photo	MO2.VA2.30.psd

critères technologiques

façonnage, traitement de surface et cuisson	Tourné - surface lissé.cuisson oxydante
couleur de la pâte (extérieur-coeur-extérieur)	Rouge-rouge-rouge
dureté et porosité	3
type d'inclusion et couleur	chamotte, brun
taille, fréquence et morphologie des inclusions	Petites, peu fréquentes, rondes

critères morphologiques

type de tesson	Bord, panse, fond	N.R.	10
forme d'origine	écuelle		
forme du bord	Convexe, rentrant, arrondi		
forme du corps	évasé		
forme du fond	arrondi avec pied annulaire		
anse			
bec			

dimensions

hauteur totale	7 cm
hauteur de l'épaule	5 cm
diamètre d'ouverture	14 cm
diamètre de l'épaule	13 cm
diamètre du fond	9 cm
épaisseur moyenne des parois	0.4 cm

décor

type de décor	molette
position du décor	entre l'épaule et le bord
motifs du décor	lignes de carrés superposés
autres traces en surface	traces de tour sur le bas de la face interne

divers

analyses	
datation du contexte	550-640
comparaisons	
remarques	

Figure 3
Record from the database.

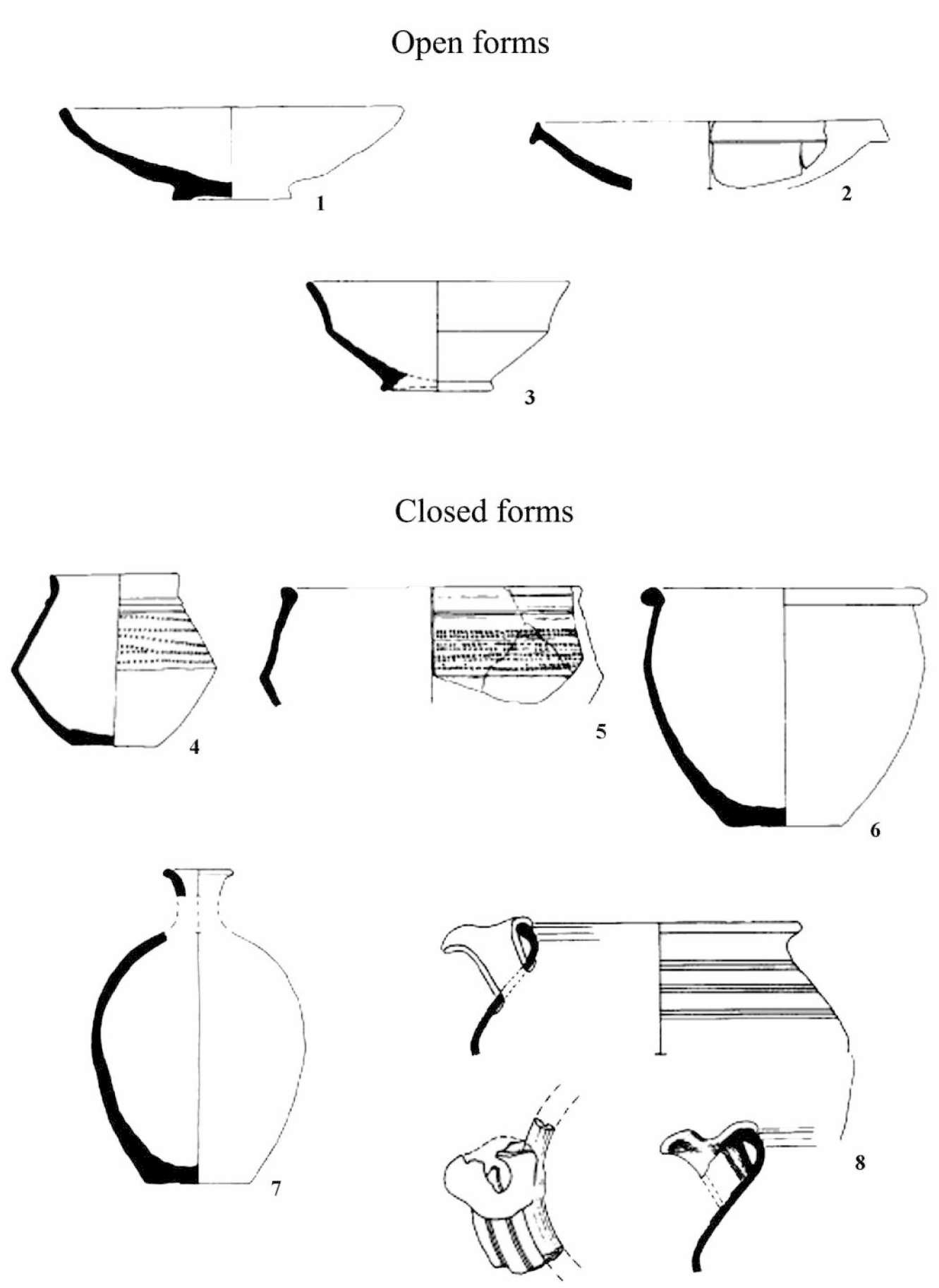


Figure 4
Main morphological categories. Drawing GOBM

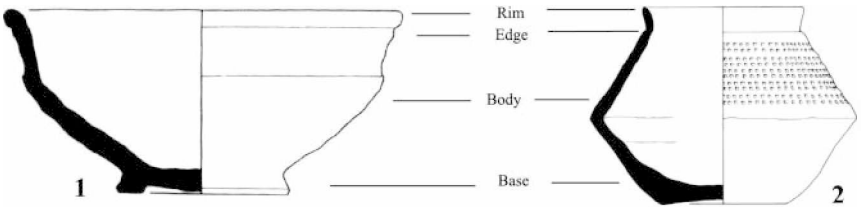


Figure 5
Different parts of the vases.
Drawing GOBM

hard and not porous. 16% of the production can be identify as smooth and oxydizing.

ii *Vessels with smooth surface and reducing firing*
The paste color is grey or black. The surface is generally darker. As for the previous group, the matrix is homogenous and the inclusions are small and rare. They are also iron oxydes and quartz. The surface is smooth and the inclusions unvisible exepted in the core. The firing conditions in a reducing atmosphere, seemed to be good. 16% of the wasters are in this group.

iii *Vessels with untreated surface and oxydizing firing*
The paste is less homogenous. Its color is mainly red on the surface and in the core. The inclusions are numerous and quite large. They are mainly quartz but also iron oxydes, 'chamotte'(grog), calcareous stuff and mica. As the surface is untreated, they are visible and giving a rough appearance. The firing is quite good and made in an oxidizing atmosphere. Nearly 28% of the production can take place in this type.

iv *Vessels with untreated surface and reducing firing*
The paste has the same characteristics as the previous type. The colour is different. Because of the firing in a reducing atmosphere, the outer surface and the core are dark, grey or black. The surface is also rough because of the inclusions. This is the most important fabric: 40% of the production.

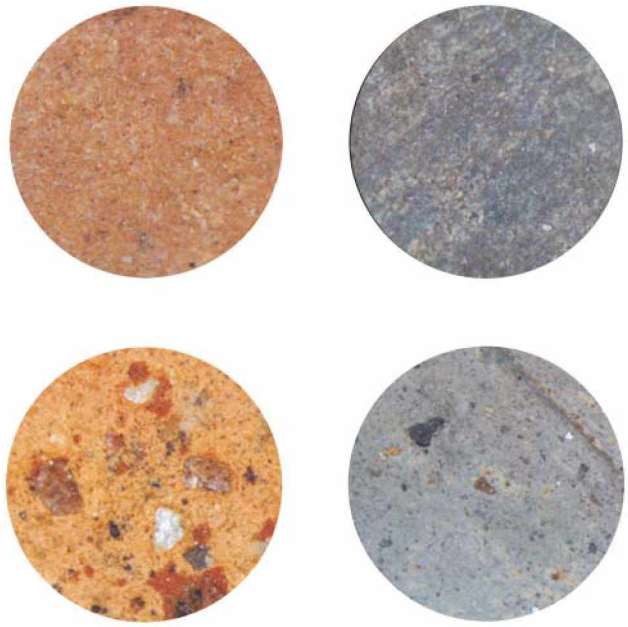


Figure 6
The four fabrics (x20).

Typology

The typology is based on the morphological criteria mentioned in the records. We can first distinguish open and closed forms (Figure 4).

The open vessels are mainly bowls with carinated body. The edge presents variations. The first category count 66 bowls having a straight vertical side ending with a rim marked by a small outer roll (Figure 7). They remain the roman bowls type Chenet 320[18] and are particulary numerous in kiln 2 (43). The second type has a curved edge with a round or tapering rim (Figure 8). They are 62 units. The carinated bowls may be decorated on the edge. There are also bowls, dishes and plates with a hemispheric body (Figure 9). They are mainly found in kiln 1 but the edges and rims' shape vary strongly. It may be simple with a roll or simply round or it may also have complex form (Figure 9 scales 3, 4 and 5) that is reminiscent of Roman pottery.

The closed forms are pots, jugs and bottles. The biconical pots are the characteristic Merovigian form (Figure 10). The 62 small biconical pots are the most coherent group of Maastricht production. They were mostly situated in kiln 1. The top half of the pot is decorated, generally with geometrical motifs. The end of the decoration is marked by a raised strip. This type of vases is really well known and found on living places and especially in cimeteries. The other bi-conical pots are bigger (Figure 11). The 52 pots, mainly found in kiln 2, are all uncompleted. They have a larger opening and are all decorated on the top of the body. Some of these are even decorated on the edge (Figure 11, scales 8 and 11).

The second type of closed pots are the pots with an ovoid body. This type of pots is characteristic for the living places. They were seldom placed in the graves. As the living places in the Mosan valley are not really well known, this type of pottery is still unknown. Such pots were made from the antiquity (type Alzei 27) to the caroligian period and the evolution of the forms, if it can be distinguish, has still to be studied in Belgium. For the pots with an ovoid body, the rims are the discriminating typological element. 306 pots have an inner groove on the edge (Figure 12). The groove is created to

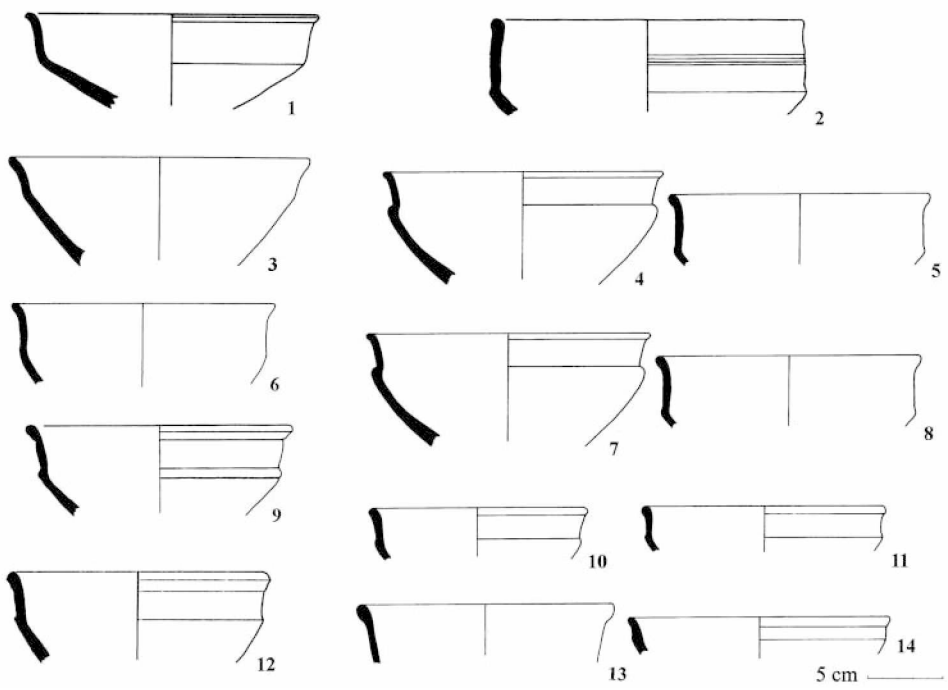


Figure 7
Bowls with straight edge. Drawing GOBM and LV

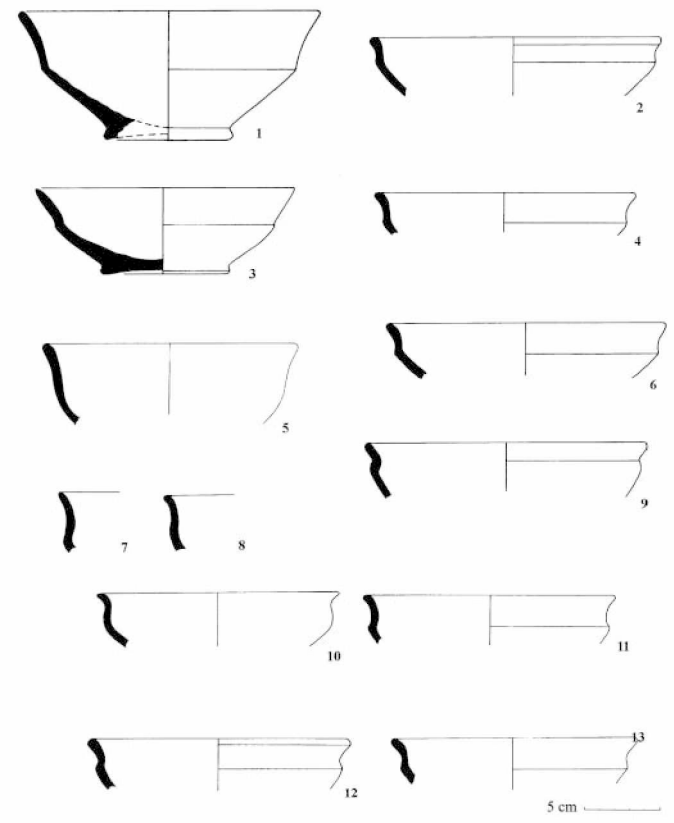


Figure 8
Bowls with curved edge
Drawing GOBM and LV

get a lid. It is made in different ways. The edge is generally curved and then there is and kind of inflexion to create the groove. Sometimes, it is really well marked as hollowed in the edge but on 26 pots nearly all coming from kiln 2, the groove is only a small incision (Figure 13). The 440 pots without grooves are not really different but their height varies strongly (Figure 14 and 15). A lot of them came from kiln 1. Ovoid pots are sometimes decorated with incisions.

The 16 jugs are all uncompleted (Figure 16). Bilobed handles and rims also testify the existence of such vases on the site. The jugs are very few and quite small. They are decorated with roulettes. The rare bottles have an ovoid body and short neck (Figure 17). Only 4 of them were found in the kilns.

The decoration of the pottery discovered in Maastricht–Wyck was mostly made with roulette with small surimposed squares (Figure 18). Other motifs are rare as some only found in kilns 1 and 4. The stamps are also really rare; only a few sherds may be decorated in this way. They were all found in kiln 1. An other simpler decoration technical consists of incised lines, one or more of them, straight or undulated, on the outer face of the pot.

The open forms and the biconical pots are smooth and the ovoid pots generally have a rough surface. Some pots categories show less variation than others: the small biconical pots are all the same and the potters took more liberties with the ovoid pots' shape. The smooth and decorated pottery seems to have more

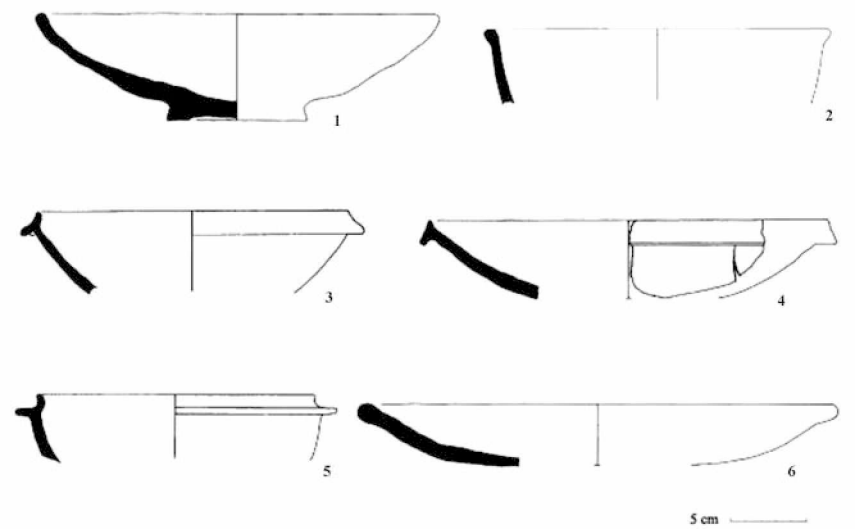


Figure 9
Bowls, dishes and plates with hemisperic body
Drawing GOBM and LV

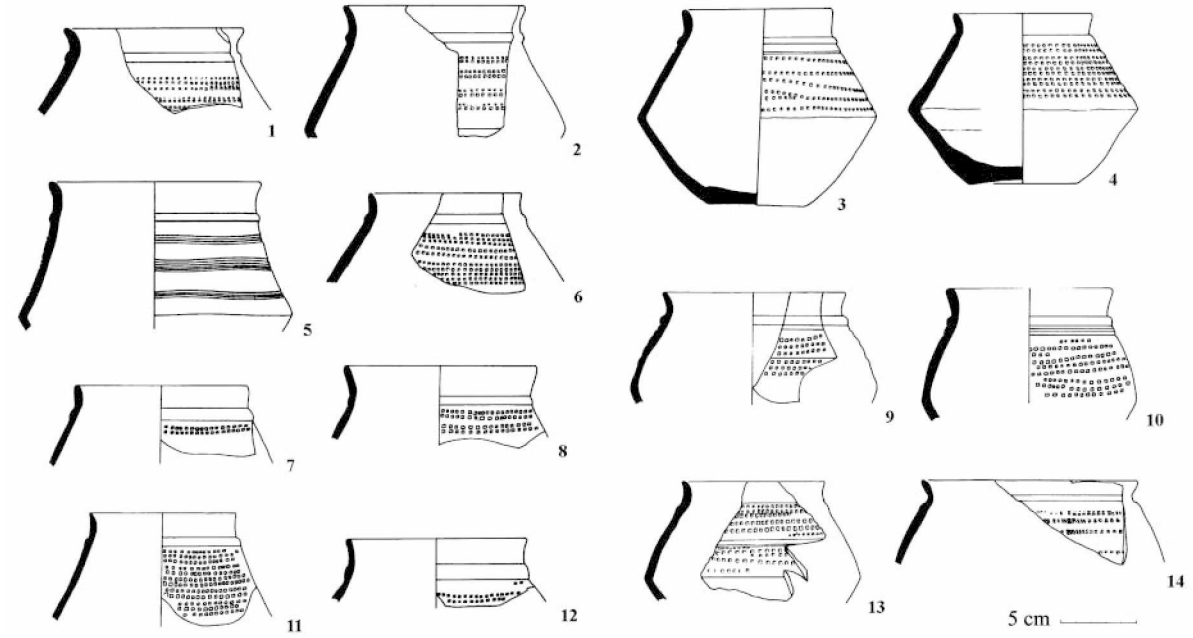


Figure 10
Small biconical pots. Drawing GOBM and LV

codified forms. They corresponded to the dishes used to serve and eat the food. In the cemeteries they constitute the main part of the vessels. While the pots with rough surface were used to cook and nearly never found in the Merovingian graves. The vessels types made in Wyck are also found on nearly every Merovingan sites. We have more or less the complete morphological repertories of the Merovingian vessels found in the Mosan Valley. It seems that there were no specialisations in this potter's activities. The craftsmen were apparently able to produce all the forms and vessels types.

The comparison with the typology made for the cimeteries and linked to the datation confirm the dates given by the ^{14}C analyses. The production of Wyck fits to the forms known between the half of the 6th century and the half of the 7th century. The creation of a typology is not really possible for this workshop. Besides, the typology can not be confirmed by the stratigraphical position of the sherds that was completely disturbed during the filling of the kilns. In some categories the changes are more due to different potters that the fact of a real evolution.

Quantification

The quantity of Merovigian ceramic found in Maastricht is enormous: nearly 19,000 sherds. 7850 sherds were found in kiln 1, 5540 in kiln 2, 3800 in kiln 3 and 1775 in kiln 4. After restoration, with the data-base,

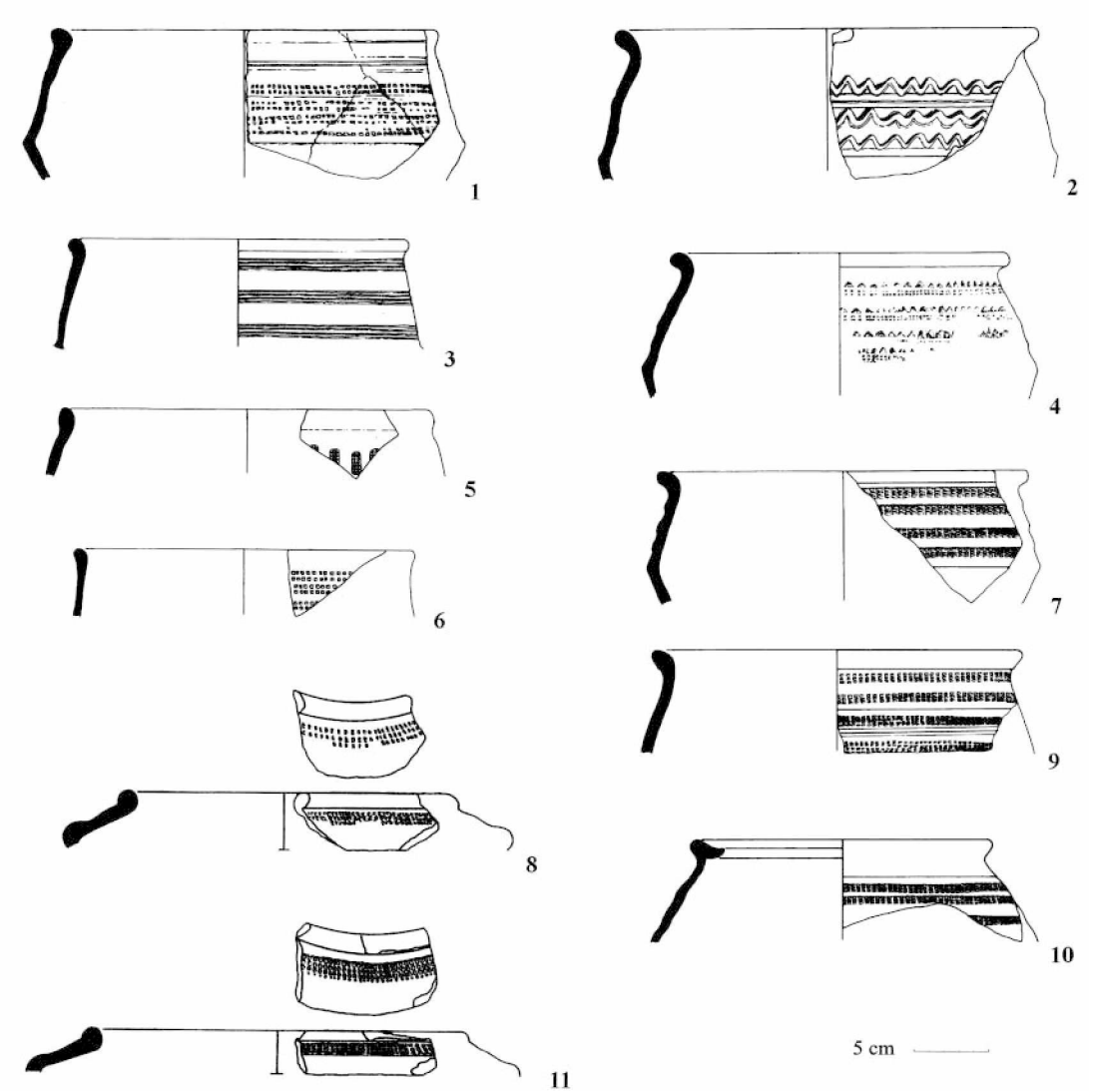


Figure 11
Big biconical pots. Drawing GOBM and LV

the counting of the edges allows an estimate of a MIN to 1099 vases.

More or less 70% of the production is pots with untreated surface with a majority of reduced firing. The other 30% have a smooth surface and are fired for a half on oxidizing way and for the other half on reducing way.

For the shapes, the pots with ovoid body are the big majority, 75% of the pottery discovered in Wyck. Their surface is mostly rough. Only a few of these are smooth. For the open forms, it's the contrary. The bowls, 14% of the whole production, are mostly smooth, only three of them have untreated surface. The biconical pots, nearly 8% of the vases found in Wyck, are all smooth and mainly reduced. Watching the proportions of the different pots, in the production site of Maastricht Wyck, the situation is identical to those of most settlements where rough ovoid pots are usually more numerous.

The decorations are found only on smooth surfaces. The biconical pots are nearly all decorated as the jugs. The bowls are mainly undecorated. The majority of ornaments are made with roulette and geometrical motifs (60%). Some motifs are complexer (20%). The other decorations are incisions (17%) and a few stamps (3%).

In the structures, the first kiln contained the most sherds. Observing the repetition of the types in the various kilns, we can't see big differences. But some types are characteristic of one structure, for example the pots with incisions on their rims in kiln 2, the bigger

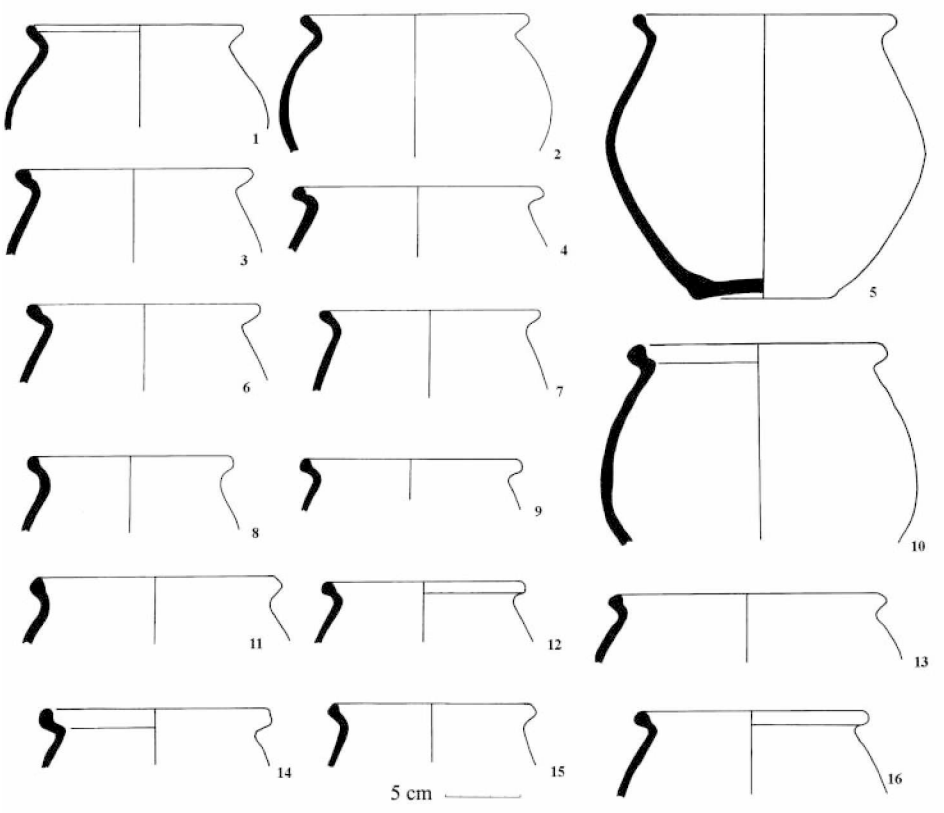


Figure 12
Pots with ovoid body and groove Drawing GOBM and LV

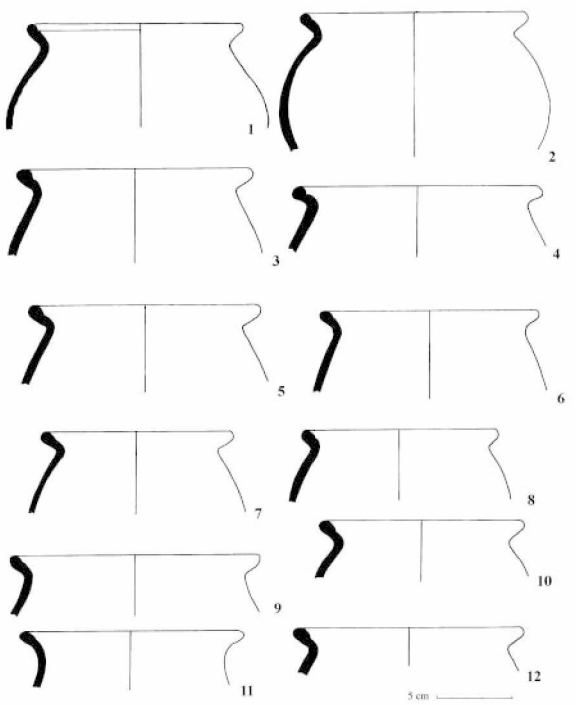


Figure 13
Pots with ovoid body and incision. Drawing GOBM and LV

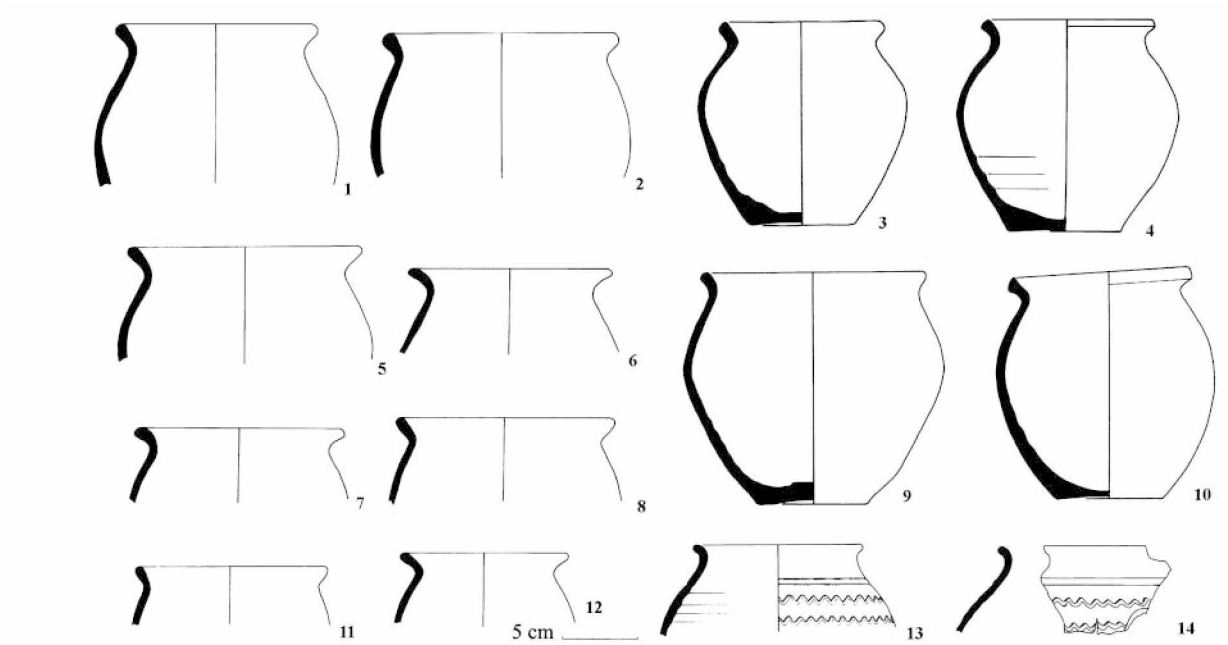


Figure 14
Pots with ovoid body and simple rim. Drawing GOBM and LV

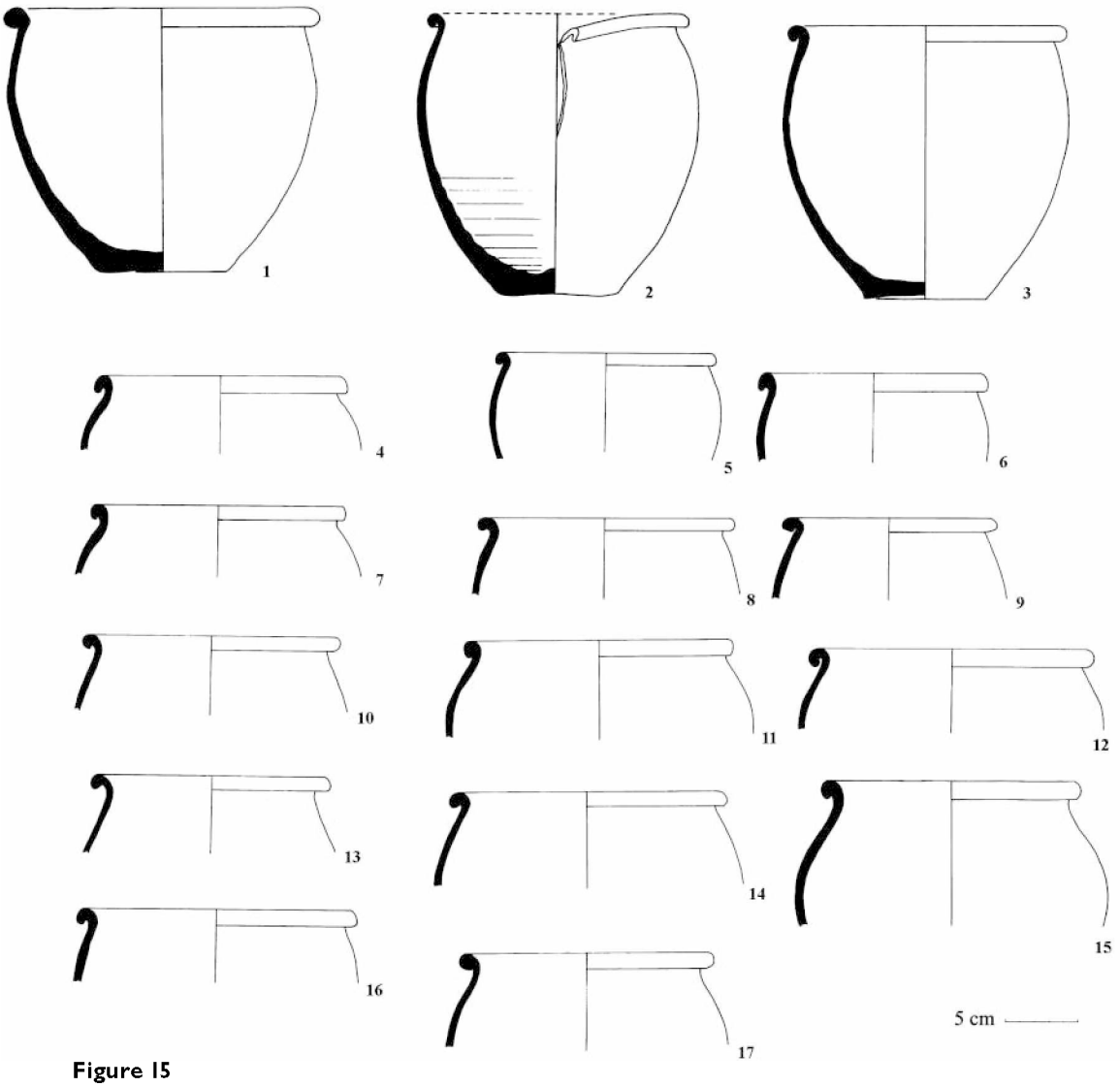


Figure 15
Pots with ovoid body and rim rolling up. Drawing GOBM and LV

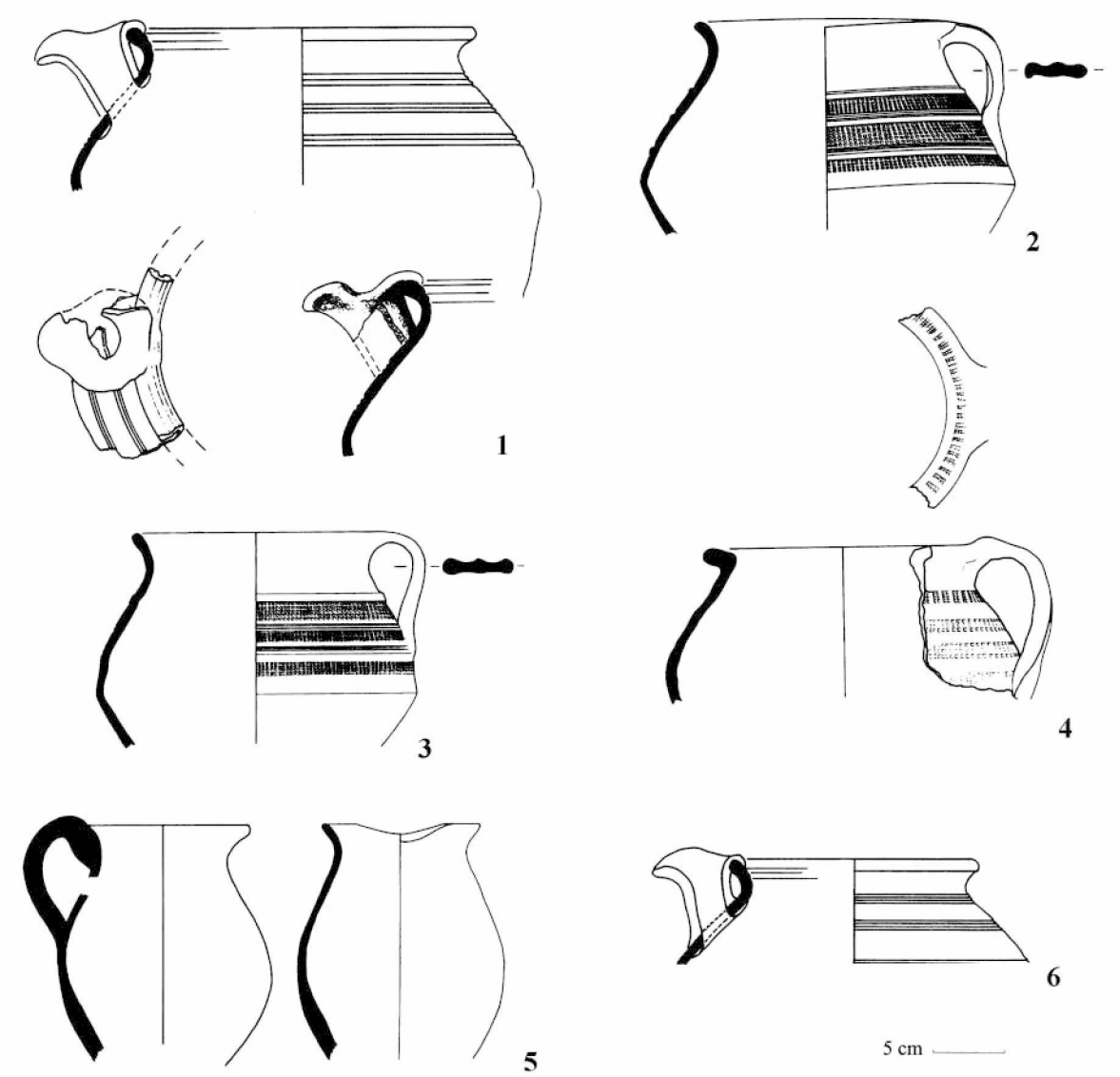


Figure 16
Jugs. Drawing GOBM and LV

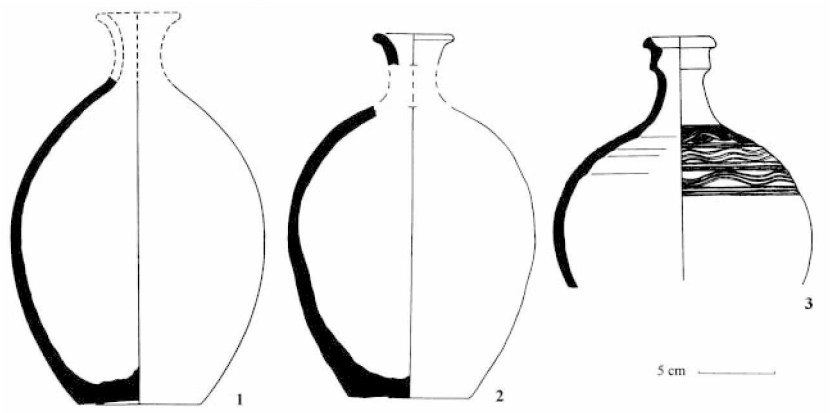


Figure 17
Bottles. Drawing GOBM and LV

biconical pots also in kiln 2, the small biconical pots in kiln 1 and the ovoid pots with rim rolling up in kiln 1.

Conclusion

In a global view, the production of Maastricht is quite homogeneous. The entire Merovingian morphological repertory was produce in Wyck. The big ceramic quantity lets us envisage the production scale. Maastricht was an important city and its supplying necessitates certainly a considerable quantity of pots. The workshop supplied either the city as show the vases found in the various cemeteries of Maastricht.[19] But the quantity made in Wyck should exceed the needs of the city and some of the pottery was made for exportation.

We hope that the future research in this field will shed light on these different questions. A more complete typology will be establish for the mosan valley so that to create a chronology. The study of other mosan Merovingian workshops will allow confirmation of the hypotheses about the production organisation and the study of settlements will permit to establish the exportation area of the ceramics made in Maastricht Wyck and the place occupied by this workshop during the early middle ages.

Endnotes

1 I first would like to thank M. Hall who corrected the English version of this paper.
2 Dijkman, W., 1999, Maastricht, in Plumeirs-torfs, S. et J., Renard, M. et Dijkman, W., Mosa nostra. *La Meuse mérovingienne de Verdun à Maastricht, Vème et VIIème siècle, Carnet du patrimoine, Namur* , pp. 46–47.
3 Dijkman, W., 1999, op. cit., p.47 .
4 Panhuysen, T., Dijkman, W., Hulst, R., and Panhuysen, R., 1992, *Opgravingen door het gemeentelijk Oudheikundig Bodemonderzoek Maastricht in het jaar 1991*, Maastricht, pp. 259–275.
5 Panhuysen, T. et al, 1992, op. cit., pp. 259–275.
6 Panhuysen, T. et al, 1992, op.cit., pp. 259–275.
7 Dijkman, W., 1993, La céramique du Haut Moyen Âge à Maastricht: tradition et innovation in Piton, P., Travaux du groupe de recherches et d'études de la céramique dans le Nord-Pas-de-Calais, actes du colloque d'Outreau, 10–12 avril 1992, in *Nord-Ouest Archéologie*, hors série, p.221.
8 Janssens, W., 1987, Der technische Wandel des Töpferöfen von Karolingerzeit zum Hochmittelalter, dargestellt anhand rheinischer Beispiele, in Chapelot, J., Galinie, H. and Pilet-Lemière, J., La céramique (Ve –XIXe siècle). *Fabrication – commercialisation – Utilisation*, Caen, pp. 107–119.
9 Thuilier, Fr., Etude synthétique des fours de potiers du Haut Moyen Âge dans le nord de la France, en Belgique et aux Pays-Bas, in Hincker, V. et Husi, Ph., (coord.), *La céramique du haut Moyen ¬ge dans le nord-ouest de l'Europe, Ve – Xe siècles, actes du colloque de Caen, Bilan et perspectives dix ans après le colloque d'Outreau, Caen 2004*, éd. NEA, Conde-sur-Noireau, 2006, pp. 17–27.
10 Jassen, W., 1987, op. cit, pp. 107–119.
11 Panhuysen, T. et alii, 1992, op.cit., pp. 259–275.
12 Dufournier, D., 1987, *Eléments de technologie appliqués à la fouille des fours de potiers médiévaux, in Archéologie médiévale*, Caen, p.150.
13 Panhuysen, T. et alii, 1992, op.cit., pp. 259–275.
14 Panhuysen, T. et alii, 1992, op.cit., pp. 259–275.
15 Adrian, Y.-M. and Roy, N., 1998, Typologie et proposition de datation de l'atelier de céramique de la Londe, in Delester, X. and Périn, P., *La datation des structures et des objets du Haut Moyen Âge: méthodes et résultats, actes des XVe journées internationales d'archéologie mérovingienne, Rouen, 1994*, Condé-sur-Noirceau, p. 57.
16 Panhuysen, T. et alii, 1992, op.cit., pp. 259–275.
17 Brulet, R. and Vilvorder, F., 1999, Le traitement de la céramique gallo-romaine, in, Léotard, J.-M., *Méthodes d'analyse de la terre cuite, actes de la journée d'archéologie en province de Liège. Ocquier, le 28 novembre 1998*, pp. 29–40.
18 Chenet, G., 1941, La céramique gallo-romaine d'Argonne du IVème siècle et la terre sigillée décorée à la molette, Mâcon, pl. XIV.
19 Dijkman, W., 1993, op.cit., p. 221.

References

Adrian, Y-M. and Roy, N., 1998, *Typologie et proposition de datation de l'atelier de céramique de la Londe*, in Delester, X. and Périn, P., *La datation des structures et des objets du Haut Moyen Âge: méthodes et résultats, actes des XVe jour-nées internationales d'archéologie méro-vingienne*, Rouen, 1994, Condé-sur-Noirceau, pp. 57–68.

Adrian, Y.-M., 2006, *Répertoires et approvisionnement sur le plateau de Saint-André-de-l'Eure durant le haut Moyen Âge: principaux caractères de la céramique mérovingienne et carolingienne au sud d'Evreux (Eure)*, in Hincker, V. et Husi, Ph., (coord.), *La céramique du haut Moyen Âge dans le nord-ouest de l'Europe, Ve–Xe siècles, actes du colloque de Caen, Bilan et perspectives dix ans aprés le colloque d'Outreau, Caen 2004*, ed. NEA, Condé-sur-Noireau, 2006, pp. 339–364.

Alénus-Lecerf, J., 1975, *Le cimetiére mérovingien de Hamoir, T.1 : Catalogue*, in *Archaeologia Belgica*, 181, Bruxelles.

Alénus-Lecerf, J., 1978, *Le cimetiére mérovingien de Hamoir, T.2: étude*, in *Archaeologia Belgica*, 184, Bruxelles.

Balfet, H., Fauvet-Berthelot, M.F., Mozon, S., 1989, *Lexique et typologie de poteries : pour la normalisation de la description des poteries*. Paris.

Böhner, K., 1958, *Die Fränkischen Altertümer des Trierer Landes*, Berlin.

Bouhier, Cl., 1964, *Les poteries mérovingiennes de Montreuil-sur-Louzon*, in *Revue du département de la Manche*, 4, fasc. 5.

Brulet, R. et Vilvorder, F., 1999, *Le traitement de la céramique gallo-romaine*, in, Léotard, J-M., *Méthodes d'analyse de la terre cuite, actes de la journée d'archéologie en province de Liège. Ocquier, le 28 novembre 1998*, pp. 29–40.

Châtelet, M., 2002, *La céramique du Haut Moyen Âge du sud de la vallée du Rhin supérieur (Alsace et Pays de Bade). Typologie, technologie, économie et culture*, Montagnac.

Chenet, G., 1941, *La céramique gallo-romaine d'Argonne du IVe siécle et la terre sigillée décorée à la molette*. Mâcon.

De Boüard, M., Meyer, N., and Randouin, B., 1987, *Le traitement de la céramique, introduction au théme 1*, in Chapelot, J., Galinie, H. and Pilet-Lemiére, J., *La céramique (Ve–XIXe siècle). Fabrication – commercialisation – utilisation*, Caen, pp. 9–15.

Demolon, P., 1972, *Le village mérovingien de Brébières (VIe–VIIe siécle)*, Arras.

Demolon, P. et Verhaegue, Fr., *La céramique du Ve au Xe siécle dans le nord de la France et la Flandre belge. Etat de la question*, in Piton, P. (ed.), *Travaux du groupe de recherches et d'études de la céramique dans le Nord-Pas-de-Calais*, actes du colloque d'Outreau, du 10 au 12 avril 1992, dans *Nord-Ouest Archéologie*, hors série, 1993, p. 392.

Dijkman, W., 1992, *La terre sigillée décorée à la molette à motifs chrétiens dans la stratigraphie maastricht-oise (Pays-Bas) et dans la nord-ouest de l'Europe*, in *Gallia*, 49, pp. 129–171.

Dijkman, W., 1993, *La céramique du Haut Moyen Âge à Maastricht: traditions et innovations*, in Piton, P., *Travaux du groupe de recherches et d'études de la céramique dans le Nord-Pas-de-Calais, actes du colloques d'Outreau, 10–12 avril 1992*, in *Nord-Ouest archéologie*, hors série, pp. 217–225.

Dijkman, W., 1994, *Maas-Tricht, lieu de défense et centre religieux*, in Demolon, P., Galinie, P. et Verhaeghe, Fr., *Archéologie des villes dans le Nord-Ouest de l'Europe (VIIe–XIIIe siècle), actes du IVe congrés international d'archéologie médiévale*, Douai, pp. 35–39.

Dijkman, W., 1999a, *La céramique*, in Plumiers-Torfs, S. and J., Regnard, M. and Dijkman, W., *Mosa Nostra. La Meuse mérovingienne de Verdun à Maastricht. Ve et VIIe siécles*, Carnets du patrimoine, Namur, pp. 36–37.

Dijkman, W., 1999b, *Maastricht*, in Plumiers-Torfs, S. and J., Regnard, M. and Dijkman, W., *Mosa nostra. La Meuse mérovingienne de verdun à Maastricht, Ve et VIIe siécle*. Carnets du patrimoine, Namur, pp. 46–51.

Dufournier, D., 1987, *Eléments de technologie appliqués à la fouille des fours de potiers médiévaux*, in *Archéologie médiévale*, Caen, pp. 143–152.

Gentili, Fr. 1988, *La vaisselle de table, poterie culinaire, récipients de stockage et verrerie*, in *Un village aux temps de Charlemagne: moines, et paysans de l'abbaye de Saint-Denis du VIIe siècle à l'an mil. Catalogue d'exposition. Musée des arts et traditions populaires, 29 novembre 1988 au 30 avril 1989*, Paris, pp. 254–268.

Janssens, W., 1987, *Der technische Wandel des Töpferöfen von Karolingerzeit zum Hochmittelalter, dargestellt anhand rheinischer Beispiele*, in Chapelot, J., Galinie, H. and Pilet-Lemière, J., *La céra-mique (Ve–XIXe siècle). Fabrication – commercialisation – utilisation, Caen*, pp. 107–119.

Kunow, J., Geisler, J., Gechter, M., Gaitzsch, W., Follmann-schulz, A. B. and Brandt, D., 1986, *Proposition pour une description systématique des céramiques*, Cologne, pp. 39–71.

Lemant, J.-P., 1978, *Fours du Haut Moyen Âge à Haucourt (France, Nord). Etude préliminaire*, in Fleury, M. and Périn, P., *Problème de chronologie relative et absolue concernant les cimetiéres mérovingiens d'entre Loire et Rhin, actes du troisième colloque archéologique de la VIe section de l'Ecole pratique des Hautes études, Paris 1973*, Paris, pp. 199–209.

Legoux, R., Périn, P. and Vallet, Fr., 2006, *Chronologie normalisée du mobilier funéraire mérovingien entre Manche et Lorraine, Bulletin de l'Association française d'archéologie mérovingienne*, no. hors série, Paris, 2006.

Orton, C., 1987, *The 'envelope': un nouvel outil pour l'étude morphologique des céramiques*, in Chapelot, J., Galinie, H. and Pilet-Lemière, J., *La céramique (Ve – XIXe siècle). Fabrication – commercialisation – utilisation*, Caen, pp. 33–41.
Orton, C., Tyers, P. and Vince, A., 1993, *Pottery in archaeology*, Cambridge.
Otte, M. and Willems, J., 1986, *La civilisation mérovingienne dans le bassin mosan, actes du colloque international d'Amay-Liège, 22 au 24 août 1985*, *Liège*.
Panhuysen, T., Dijkman, W., Hulst, R. and Panhuysen, G., 1992, *Opgravingen door het Gemeentelijk Oudheikundig Bodemonderzoek Maastricht in het jaar 1991*, Maastricht, pp. 259–275.
Panhuysen, T., 1992, *Four Merovigian Potter's kilns from Urbs treiectinsis (Maastricht)*, in *Préactes du Colloque Technology and Innovation, 21st–24th September 1992 at the University of York*, in *Medieval Europe*.
Périn, P., 1998, *la question des 'tombes-références' pour la dataion absolue du mobilier funéraire mérovingien*, in Delestre, X. and Périn, P., *la datation des structures et des objets du Haut Moyen Âge: méthodes et résultats, actes des XVe journées internationales d'archéologies mérovingienne, Rouen, 1994*, Condé-sur-Noireau, pp. 189–206.
Péters, C., 1986, *Traits particuliers et évolution de la céramique mérovingienne des régions mosanes*, in Otte, M. and Willems, J., 1986, *La civilisation mérovingienne dans le bassin mosan, actes du colloque international d'Amay-Liège, 22 au 24 août 1985*, *Liège*, pp. 235–239.
Plumiers-Torfs, S. and J., Regnard, M. and Dijkman, 1999, W., *Mosa Nostra. La Meuse mérovingienne de Verdun à Maastricht. Ve et VIIe siècles*, Carnets du patrimoine, Namur.
Redkanp, M., 1987, *Continuity or change: the Mayen tradition from the 4th–14th centuries*, in Chapelot, J., Galinie, H. et Pilet-Lemière, J.(ed.), *La céramique (Ve–XIXe s.). Fabrication – commercialisation – utilisation*, Caen, 1987, pp. 87–99.
Redknap, M., 1999, *Die römischen und mittelalterlichen Töpferein in Mayn, Kreis Mayen Koblenz*, in *Berichten zur Archäologie an Mittelrhein und Mosel*, 6, pp. 1–401.
Thuilier, Fr., 2006, *Etude synthétique des fours de potiers du Haut Moyen Âge dans le nord de la France, en Belgique et aux Pays-Bas*, in Hincker, V. et Husi, Ph., (coord.), *La céramique du haut Moyen Âge dans le nord-ouest de l'Europe, Ve–Xe siècles, actes du colloque de Caen, Bilan et perspectives dix ans après le colloque d'Outreau, Caen 2004*, éd. NEA, Conde-sur-Noireau, 2006, pp. 17–27.
Schuring, J.M., 1984, *Studies on roman amphorae I–II*, in *Bulletin Antike Beschaving*, 59, pp. 95–137.
Van Wersch, L., 2006, *Les fours de potiers mérovingiens découverts à Maastricht*, in Hincker, V. et Husi, Ph., (coord.), *La céramique du haut Moyen Âge dans le nord-ouest de l'Europe, Ve–Xe siècles, actes du colloque de Caen, Bilan et perspectives dix ans après le colloque d'Outreau, Caen 2004*, éd. NEA, Conde-sur-Noireau, 2006, pp. 27–42.
Willems, J., 1973, Le *quartier artisanal gallo-romain et mérovingien de 'Batta' à Huy*, in *Archaeologia Belgica*, 148, Bruxelles.
Willems, J., 1986, *La production de poterie mérovingienne dans la région hutoise*, in Otte, M. and Willems, J., 1986, *La civilisation mérovingienne dans le bassin mosan, actes du colloque international d'Amay–Liège, 22 au 24 août 1985*, *Liège*, pp. 241–260.
Willems, J. and Witvrouw, J., 2005, *La céramique mérovingienne produite à Huy. Esquisse d'une typologie*, dans Plumier, j. et Regnard, M., (coord.), *Voies d'eau, commerce et artisanat en Gaule mérovingienne*, *Etudes et documents, archéologie*, 10, Namur, 2005, pp. 301–318.

Résumé

Le centre de production de ceeramique mérovingienne au cœur de cet article a été découvert en 1991 et semble dater du 6ème au 7ème siècles PCN. Il a été mis au jour sur la rive occidentale de la Meuse, dans le quartier de Wyck, à l'emplacement d'une usine cÈramique datant du 19ème siècle. La technologie des fours, la composition des pâtes et la typologie des formes sont toutes considérées dans cet article. Ce travail constitue le commencement d'une thèse sur la céramique mérovingienne dans la vallée mosane.

Zusammenfassung

Die merowingische Töpferwerkstatt, die den Gegenstand dieses Berichts bildet, wurde 1991 entdeckt und scheint aus dem 6. oder 7. Jahrhundert n. Chr. zu stammen. Sie wurde auf der Westseite des Flusses im Maastricht–Wyck–Viertel auf dem Gelände einer Keramikfabrik aus dem 19. Jahrhundert entdeckt. Dieser Bericht behandelt die Technologie des Ofens, die Art des Tons und die Gefäßtypologie. Sie bildet den Anfang einer Doktorarbeit über merowingische Keramik im Mosan–Tal.