

Middle Meuse valley ceramics of Huy-type: a preliminary analysis

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SUMMARY

This paper¹ focuses on a sequence of domestic pottery excavated at the Place St Severin site in Huy, Belgium. Macroscopic examination of selected context groups spanning the 8th to 11th centuries assisted in the identification of a predominant group of wares, which share diagnostic features with pottery found in production contexts in Huy. This cluster of presumed local wares is named Huy-type wares and classified with regard to the main fabric types represented. The wide repertoire of Carolingian Huy-type wares is indicated, while their gradual development from local precursors is suggested. The distribution of Huy-type wares and their possible influence on related industries, in the Middle Meuse valley and perhaps in Stamford, Lincolnshire, are briefly discussed with special reference to late-Carolingian red-painted and early glazed ware.

INTRODUCTION

The Middle Meuse valley has long been known for its high-medieval² and later industries producing fine-quality wheelthrown pottery, notably glazed ware. The most important production centre in the region, located at Andenelle (Andenne), has been since 1955 the subject of extensive excavation programmes (Borremans and Lassance 1956, 1987; Borremans and Warginaire 1966) resulting in the establishment of a typo-chronological scheme for the wares produced between the 11th and 14th centuries. At a second major kiln-site in Wierde near Namur, similar types of pottery were produced from at least the 11th century onwards (Lauwerijs and Petit 1967); in the vicinity of Wierde, a third related site at Mozet has yielded dating evidence for a period of production *c.* 1050 (Duhaut *et al.* 1995). These high-medieval kiln-sites are all situated in rural areas, in the immediate neighbourhood of rich deposits of fine clay (Borremans and Warginaire 1966, fig. 35). Only the fourth contemporaneous kiln-site in the region, excavated in Huy, Rue Godelet (Bit *et al.* 1985–86) can be assigned to a proto-urban industrial infrastructure. While the industries at Andenne, Wierde and Mozet are likely to have developed in the 10th to 11th centuries, there is massive evidence of an earlier, fully established pottery industry in Huy — kiln evidence from between the 4th and 8th centuries. This raises questions about the relationship of the high-

medieval kiln-sites in the region with the ancient and hypothetically continuous tradition of pottery production in the Middle Meuse valley, which was perhaps centred in the early medieval *vicus/portus* of Huy.

Since it is difficult to get an overall impression of the available data published in scattered regional periodicals, an overview is provided here of the excavated kiln contexts in Huy and the evidence gained from local consumer sites. An attempt is then made to classify the distinctive fabric types of presumed local manufacture and to describe their incidence in a well-stratified layer sequence recently excavated in Huy.

PAST RESEARCH

Traces of pottery production are widely scattered over the area of the medieval walled city of Huy (Fig. 1). Topographically this area can be divided into three constituent nuclear settlements, which are borne out by historical and numismatic evidence. A central zone, in the southwestern part of the confluence of the rivers Meuse and Hoyoux, has been assigned to a late-Roman and early-medieval *castrum* site, which had likely formed the aristocratic and ecclesiastical core of the settlement. It had probably accommodated the important Merovingian and Carolingian mint and harboured the custom station mentioned in 744. The areas adjacent

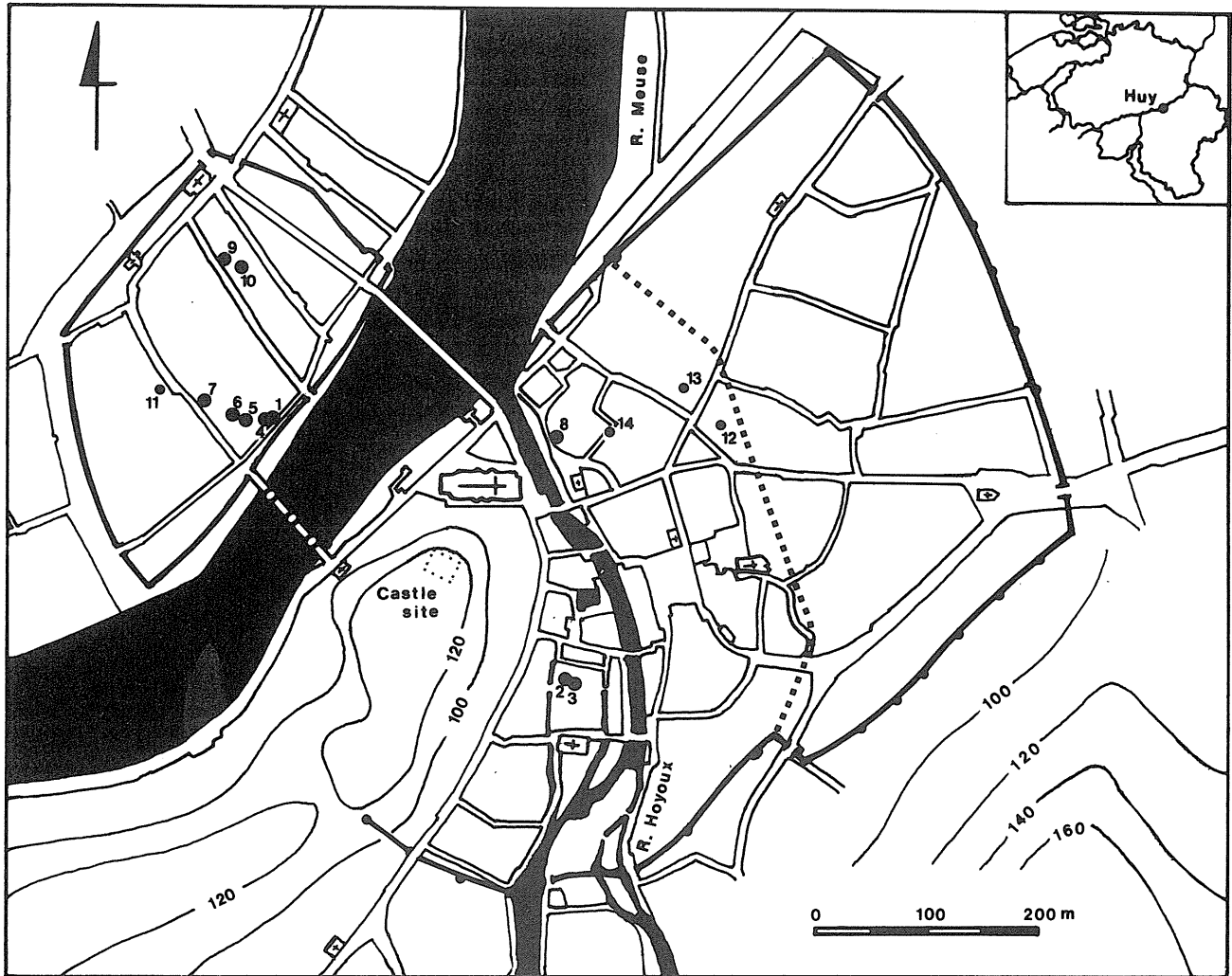


Fig.1. Plan of Huy (after Joris 1959, with alterations) showing pottery production sites within the medieval walled town. Kilns: 1-3, late Roman; 4-8, Merovingian; 9, Carolingian; 10, high medieval. Waster deposits: 11-12, Merovingian. Early glazed waster sherds: 13-14, late Carolingian. (14 is Ruelle des Coucous).

to this central site, located on the left and right banks of the river Meuse, have been identified as zones of industrial and trading activities. The latter is probably identical with the documentary *portus* of 862 and the *villa* of the Huy *burgenses* mentioned in the town's famous liberty charter of 1066 (Joris 1959; 1972). Archaeological investigations undertaken since the early 1970s have confirmed these suggestions. They have revealed the specifically industrial nature of the site and its continuous occupation from at least the 5th century onward, presumably in all of the three nuclei (Willems 1973; Gob 1986; Tilkin-Peters 1987). Merovingian Huy has therefore been repeatedly cited as an exemplary model for the industrial type of proto-urban settlement (e.g. Roth 1986). What makes Huy significant in a wider context is the probability of continuous and 'town-based' production of fine-quality wheelthrown pottery, which was possibly

maintained without a marked hiatus from the 4th until the 19th century. Of the numerous contexts related to pottery production the following have been attributed to the early-medieval period: in a synopsis of the Merovingian kilns discovered before 1985, Willems (1986, 242) mentioned five kilns found on the left bank of the Meuse. Two of these, excavated on the Batta construction site, have been comprehensively published (Willems 1973), while a third kiln, superimposed on a late Roman kiln of the 4th century, is featured in another report (*idem.* 1994a). The other two kilns, excavated at Rue du Vieux Pont (Dandoy *et al.* 1995) and Rue Godelet (Willems 1994b)³, two isolated waster deposits excavated in Rue des Augustins (*idem.* 1975-76a) and Rue du Vieux Pont (*idem.* 1975-76b), and yet another kiln observed in Avenue des Ardennes (*idem.* 1994b, 51) add to the evidence for large-scale pottery production in the Merovingian settlement

spread on both sides of the Meuse and Hoyoux rivers. All of these groups have been assigned to production phases between the 6th and 8th centuries. This wide chronological framework for the local industry can be expanded still further by evidence from the two late Roman or early Merovingian kilns of 5th/6th century date, excavated in Place St Jacques in the presumed *castrum* area (Dandoy and Willems 1994).

Still, a full assessment of the nature and development of the local pottery industry between the 4th and 8th centuries, and of Huy wares, its products, is complicated by the lack of published data concerning the characteristics of local fabric types, the quantification and definition of the wares and so forth. Without a much-needed re-examination of the kiln assemblages, only a simplified description of Huy wares can therefore be provided here. Early medieval Huy wares are invariably thrown on a fast wheel, showing a high standard of potting and surface treatment, and excellent control of the firing process. The proportion of fine, highly-decorated wares is considerable in all assemblages.

Local finds of the Meuse valley variant of Argonne-type *sigillata* are associated with the kilns excavated in Place St Jacques (Dandoy and Willems 1994; J. Willems pers. comm.). Assemblages of the 6th and 7th centuries, such as those associated with the kilns at the Batta site (Willems 1973) display the full repertoire of Merovingian wheelthrown pottery, comprising coarse gritty wares, hard-fired ware, fine burnished and red-slipped wares, all in full accordance with overall trends in Merovingian ceramic development. Not surprisingly, Redknap (1988, 31) pointed to the similarity of the Merovingian industries in Mayen and Huy, while Willems (1973) easily described the wasters from Huy Batta, following the scheme developed by Böhner (1958) for pottery found in the Trier region. Other, perhaps slightly later, waster assemblages of the later 7th to earlier 8th centuries (e.g. Willems 1975–76a and b) show a rather specialised repertoire, concentrating on standardised forms or specific types of decoration. A distinctive type of single-stamped decoration combined with a Huy-type of fabric has allowed the identification of presumed Merovingian Huy ware imports in London (Evison 1979, 38 and fig. 15h), and recently Ipswich⁴. The wasters found in 1981 associated with the 8th- to 9th-century kiln at Rue Godelet (Willems 1994b) include Carolingian sandy reduced wares. In contrast with the abundance of Merovingian production contexts, very little is known about any late Carolingian or Ottonian phase of the local industry which might have preceded the 11th-century kiln-site of Rue Godelet (Bit *et al.* 1985–86). If such an intermediate industry of the 9th and 10th centuries existed at all in or around

Huy, it should be possible to detect its products in the assemblages of local consumer sites.

As a result of regular excavations and rescue work in Huy, very large amounts of medieval pottery have been recovered and partly analysed; through the previous discovery of local kilns and waster deposits, most of the Merovingian pottery from domestic contexts can plausibly be attributed to local sources. While only a single Merovingian settlement site has been the subject of a comprehensive study (Docquier and Bit 1983–85), several important reports have been devoted to pottery from domestic contexts of the 8th to 12th centuries. Edouard Lauwerijs (1975–76) made the first attempt to classify presumed 10th- to 12th-century Meuse valley white wares using finds assemblages from the Batta site. He cautiously indicated a regional or possibly local provenance for a distinctive group of white wares, which included a remarkable proportion of red-painted and early glazed specimens, and proposed an extension of their chronological range back into the 10th century, or even earlier. In a later report (*idem.* 1987–88) Lauwerijs' study of domestic finds from the Rue Godelet site resulted in a tentative chronological scheme for Carolingian pottery found in Huy; he suggested an initial phase until c. 850, which featured mainly black and grey wares, and a subsequent phase, when glazed and red-painted white wares were introduced and soon became well-represented in the domestic finds assemblages of various local sites. Lauwerijs' views of the hypothetical provenance and chronology of such wares were widely supported (e.g. Hodges 1977, 46; Mainman 1990, 461); his typochronological scheme for Carolingian and later wares with a probable Meuse valley provenance was adopted by Willems when he catalogued other major assemblages of domestic pottery from Huy, namely Rue d'Amérique (Willems 1990–91a and b), Quartier de l'Hopital (*idem.* 1992–93a) and Rue Godelet (*idem.* 1992–93b). Like the assemblages featured in Lauwerijs' studies, Willems' finds groups also included unusually large proportions of red-painted and early glazed wares, which were now attributed by their excavator to contexts of the 9th and 10th centuries.

It is regrettable that these important finds catalogues provide little information about fabric types, technical features, or quantities. From these reports alone, it is therefore difficult to assess, for example, whether late Carolingian white wares, as found in domestic contexts in Huy, share any diagnostic features with their hypothetical precursors among local Merovingian wares, or, on the other hand, with later white wares of "classic" Andenne-type, which might hint at their as yet uncertain provenance. With these uncertainties and the lack of a workable classification scheme it has hardly been possible to

ascribe such types of white ware to a Meuse-valley source, when occasional finds occurred at sites scattered around north-west Europe (cf. Verhaeghe and Janssen 1984; Verhaeghe 1988a and b).

POTTERY FROM HUY, RUELE DES COUCOUS

Recent research into ceramics from a sequence of domestic layers (excavated in the Ruelle des Coucous area on the vast Place St Severin construction site in Huy) provides a good opportunity to discuss these persisting problems of identifying, provenancing and dating early medieval and later pottery from the Middle Meuse valley. It aims, moreover, to offer a first, basic classification of pre 11th-century Middle Meuse pottery, from visual examination of the regional or possibly local wares and their fabrics.

The layer sequence

After a series of watching briefs on the c. 5000 m² Place St Severin construction site in 1988 (Giertz 1989), in 1989 the author began to excavate a strip of c. 30m² along the former alley of Ruelle des Coucous, located on the periphery of the early-medieval *portus* and on the edge of the medieval market-place of Place St Severin. This strip partly bordered on the only previous excavation on the construction site, of c. 170m², carried out by the National Excavation Service in 1986; this excavation had already found intensive occupation south of Ruelle des Coucous from the 5th century onward, including industrial activities such as comb-making and metalworking (Tilkin-Peters 1987). Until 1990 the present author focused on recording an almost undisturbed sequence of rubbish deposits, occupation layers and street levels, which had resulted in a constant rise of ground level following approximately the northeast/southwest orientation of the historic alley of Ruelle des Coucous (Appendix 1). Throughout the sequence there were no signs of the digging of pits in the investigated area, nor any major re-deposition of residual material. The main bulk of pottery contained within each layer is by-and-large believed to be contemporaneous with and representative of the period assigned to the layer. The dating framework has been established by independent artefactual and historical evidence; the finds from the pre-marketplace sequence were tentatively dated to the 8th to mid 11th centuries. Two contexts have been associated with documentary evidence. The possible destruction layer of period IIIb might perhaps be contemporaneous with, or even linked with, repeated Viking raids in the Meuse valley in subsequent years between c. 879 and 892, which affected the settlement not least by

the documented destruction of its main ecclesiastical site, the church and abbey of St Mary and Domitian in the *castrum* area (cf. Joris 1959, 93–5; van Rey 1977, 812–13). It is very unlikely that the exposed settlement in the adjacent area around Ruelle des Coucous was spared and remained intact in the course of these events⁵.

The period VIb destruction layer, recognized mainly outside the street area, and the subsequent massive reconstruction work assigned to period VIIa, can plausibly be identified with destruction caused by the documented ravaging of Huy in 1053, and a rebuilding programme on a grand scale connected with the historical *libertas ville* of 1066 (Joris 1959, 107 *passim*), which established Huy as the first documented free town north of the Alps.

Terminology and classification of Huy-type fabrics

The enormous quantity, 18,844 sherds, from the Ruelle des Coucous sequence of pre-market place layers, allows detailed research into the nature, development and chronology of regional and/or possibly local types of pre 11th-century Middle Meuse pottery. Some of these wares, white ware variants, have previously been labelled “pre-Andenne pottery from the Maas area” by T. Panhuysen⁶ and others (e.g. Mainman 1990, 461) indicating a close visual resemblance to “classic” Andenne-type ware of the mid-11th century and later. Since these “pre-Andenne type” wares have not yet been found in any clear production context, their exact provenance had to be left open (cf. Verhaeghe 1988b). Still, the predominance of such wares in every domestic context of the later 9th to 11th centuries so far recovered in Huy, is striking. Together with the virtual absence of well-known contemporaneous imports from the nearby Rhineland Vorgebirge, the South Limburg area or north-eastern France, and the almost complete lack of handmade wares, this strongly suggests a regional or local self-supplying industry of fine wheelthrown pottery, which was obviously established well before the emergence of the industry in Andenne, now dated by kiln evidence to shortly before the mid-11th century (Borremans and Lassance 1987, 83).

From visual examination of the various fabric-types represented in the Ruelle des Coucous assemblages it has become clear that “pre-Andenne type” white wares of the late 9th to 11th centuries share distinctive features of their fabrics, not only with hypothetical precursors among 8th- to 9th-century reduced wares, but also with Merovingian Huy wares, which were well known from local kiln sites. Slight wasters or seconds of presumed late Carolingian white wares are found, moreover, in layers ascribed to the second half of the 9th century in the sequence.

They are also found on other sites in Huy⁷.

The simple adoption of the term “pre-Andenne-type” wares for this long sequence of technologically coherent, early-medieval and later wares would be misleading, because the widely-known “pre-Andenne type”, the 10th- to 11th-century white ware fabric, appears to be initially a sub-class and a rather late development of an established industry, which was evidently not located in Andenne/Andenne itself, but rather in the proto-urban centre of Huy.

This cluster of closely related fabric types that probably originated in the late-Roman pottery industry in Huy, has been type-named “Middle Meuse valley ceramics of Huy-type”, referred to here as Huy-type wares (HUYT). By the choice of an eponymous site-name the author emphatically does not claim to be able to prove the provenance of the *entire* cluster from local kilns in Huy, nor a single production centre in the vicinity. A current programme of neutron activation analysis, using samples from the Ruelle des Coucous sequence and several kiln sites in the region should ultimately provide more conclusive evidence by producing chemical fingerprints, and not for the cluster of Huy-type wares alone⁸.

In the meantime, Huy-type wares should be identifiable and distinguishable from non-regional wares primarily by macroscopic examination of their fabrics. Additionally, they may show typical technical features and diagnostic types of decoration. Huy-type wares of the 8th to 11th centuries are invariably thrown on a fast wheel. They are medium-hard to hard fired earthenwares (Mohs 5–7); a fused fabric is known from late Carolingian and later *Kugeltöpfe*, but otherwise it indicates wasters of various fabric types. The clay matrix of all types is even and clean. In an oxidising atmosphere the clay fired to white, buff or pink hues; reduced wares frequently have a white core and black surfaces. There is little variation in surface and core colouration, due to good kiln control (but for Munsell colours see Appendix 2).

The mineral proportions and impurities presumed to be already contained in the clay (“natural tempering”) are common to all Huy types of fabric which can be attributed to production of the early- and high-medieval periods. Inclusions are mainly abundant very fine quartz silts and occasional large mica plates (?muscovite) of 0.1–1.0mm. Other diagnostic inclusions are monochrome red, soft, iron-rich pellets 0.1–4.0mm, which are often smeared into the fabric; and might indicate clay mixing or the addition of a flux. There may be soft, rounded, chalk-white inclusions, possibly decayed limestone or particles of fossil molluscs. This group of basic inclusions can also be detected in the fabrics of the high-medieval industry in neighbouring Andenne, which may reflect the widespread

exploitation of geologically identical or closely related clay deposits over a long period of time. Provisionally, these deposits can be identified with the source of the white-firing *blanche derle* clay and associated inferior clays. These could all be mined from Tertiary Lower Miocene deposits in an area stretching along the Meuse valley between Namur and Huy (Borremans and Lassance 1956, 7 *passim*; Borremans and Warginaire 1966, fig. 35).

What distinguishes notably Merovingian and Carolingian Huy-type fabrics from their apparent successors of the high-medieval period, among them “classic” Andenne-type ware, is the very specific use of tempering material and/or naturally tempered clays, resulting in three groups of early-medieval Huy-type fabrics:

- a. fine, untempered fabrics, generally reserved for fine burnished tableware
- b. fine-sandy and sandy fabrics, used mainly for coarser types of tableware
- c. coarse gritty fabrics, solely for cooking pots and industrial vessels.

These “functional” groups can already be identified in the production levels of the Merovingian kilns on the Huy Batta site (Willems 1973). They were gradually developed and still maintained until about the mid 9th century, when the ceramic tradition changed dramatically, as may be deduced from the Ruelle des Coucous material. The maintenance of standard “recipes”, in the preparation of the raw materials used for the continuous production of a great variety of wares over a long period of time, might not only reflect an unchanging demand for a wide range of wares by a lucrative market and prospering environment such as Huy; it could equally hint at a seemingly experienced and conservative cottage industry, and a settled population of potters within such an environment, which was able to satisfy that demand apparently without major disruption from the 4th until the late 9th century.

Fossil marine layers of sand associated with the Tertiary clay deposits are a probable source for the well-sorted, well-rounded, multicoloured and translucent monocristalline sands of a distinctively dark or reddish appearance, which are typical of the (likely intentional) tempering of fine-sandy and sandy Huy-type fabrics. It is, however, probable that the coarse subangular sands and the grits of reddish quartzitic sandstone and greenish schist, which characterise the coarse gritty fabrics, were collected from deposits of fluvial sands; they closely resemble the mixture of sands and grits deposited at the confluence of the Meuse and Hoyoux, in the foreshore area at Huy. The three clusters of Huy-type fabrics are sufficiently characteristic to be

generally identifiable and distinguishable; all are well represented in subsequent production phases and on several kiln sites of the local industry in Huy. It should, however, be emphasized that the macroscopic examination of undiagnostic sherds can never ensure a proper provenancing, let alone dating, because of the superficial similarity of other regional wares. On the one hand, Merovingian wares produced in Maastricht (Dijkman 1993) can be quite similar, possibly owing to common clay sources, at least for the fine wares; on the other hand, the typical fine-sandy and sandy fabric group of late Merovingian and Carolingian Huy-type wares may be confused with later regional fabrics of the high-medieval period, for example from Andenne and Wierde. This problem has perhaps led to mis-attributions and erroneous dating in the past (Verhaeghe 1988a, 62). Although a few sherds with a fine-sandy fabric are known from Andenne/Andenne, this variant seems to be quantitatively marginal and not necessarily early within the development of Andenne-type wares. In general, these are untempered or fine-silty wares, but not sandy. If sand temper occurs, it consists of translucent colourless quartz grains <0.2mm. In contrast with the "classic" fine, untempered Andenne-type fabric, the average high-medieval Wierde-type fabric is abundantly sand-tempered with an assortment of coloured monocristalline sands resembling typical earlier Huy-type wares. The sands, however, are slightly larger and much more profusely scattered in the paste of the Wierde group⁹.

In any attempt to distinguish between production centres and production phases of the Middle Meuse ceramic industry, and especially in the attribution of late Carolingian and Ottonian white wares, it is therefore advisable not to rely on merely visual characteristics of the fabrics. Technical and morphological aspects of the wares should also be considered and, if possible, physical and chemical methods of examination employed, in order to obtain more reliable "fingerprints", which would ideally be related to patterns established for single production phases within separate kiln complexes.

Selected context groups and parallels

Since cataloguing of the Ruelle des Coucous assemblages is still in progress and because of limited space, it would be premature to provide an exhaustive description and typo-chronology of the wide range of vessel-types and their decoration. A small selection of significant finds is represented here; in the selection, individual vessels with many matching sherds, which are unlikely to be residual, have been preferred. A basic quantification by sherd count is given in Appendix 3, including relative proportions of Huy-type wares, residual Roman

pottery (of which a part is clearly related to early-medieval Huy-type wares by fabric characteristics), and clearly-identified imported wares throughout the sequence. A comment on condition is added for each context.

Period I

This small assemblage comprises a number of undiagnostic but well-preserved sherds of various late Roman to Merovingian, fine, sandy and coarse wares, probably deposited over a long period, suggesting a slow build-up of the loamy deposit. A rim sherd in fine, black, burnished ware with narrow bands of square rouletting on the shoulder (Fig. 2, No. 1) is probably from a type of carinated pitcher, which is known from the 7th- to 8th-century waster deposit in Huy Rue des Augustins (Willems 1975-76a, 135; pl. 1, no. 1). The complex rouletting of a probable Huy-type import in York, Fishergate (Mainman 1993, 571; fig. 238, no. 2404) is known from production and domestic contexts in Huy c. 700 (Willems 1973, pl. XXVII, no. 1; pl. XXXIV, nos. 3; 9).

Period IIa

Beside some residual Roman sherds, and a number of Merovingian fine, sandy and coarse ware sherds, which reflect the production range of the late 7th- to early 8th-century kilns operated in Huy, this assemblage is dominated by a large group of wide-mouthed cooking pots with everted, hollowed, lid-seated rims and flat, wire-cut bases, which as a group tend towards rounded shapes (Fig. 2, Nos. 2-4). There are many matching sherds of these pots in fresh condition in Huy-type fabrics 1a, 2a and 3 (see above, p. 37 and below, Appendix 2). One high-fired specimen in fabric 3 has a knife-trimmed zone around the base (Fig. 2, No. 4). Horizontal grooves incised on the shoulder are a typical decoration on fabric 1a vessels (Fig. 2, No. 2); this variant has been found in association with kiln 1 on the Huy Batta site (Willems 1973, fig. 12, no. 2). It has been proposed that the chronology of the general vessel type extended well into the 8th century (*ibid.*, 27), notably from its occurrence on late Merovingian cemeteries and settlement sites in the Lower Rhineland; there, however, the fabric is usually of a Rhenish Vorgebirge type. A probable source of these late Merovingian/ early Carolingian types from the Rhineland, and for some imported vessels in the Ruelle des Coucous sequence as well, is the production site at Walberberg, Kitzburgerstrasse¹⁰ (Rech 1989, 309-15; fig. 13, nos. 2; 5-6). The suggested 8th-century date range for this vessel type in Walberberg and in the Ruelle des Coucous sequence is compatible with the initial appearance

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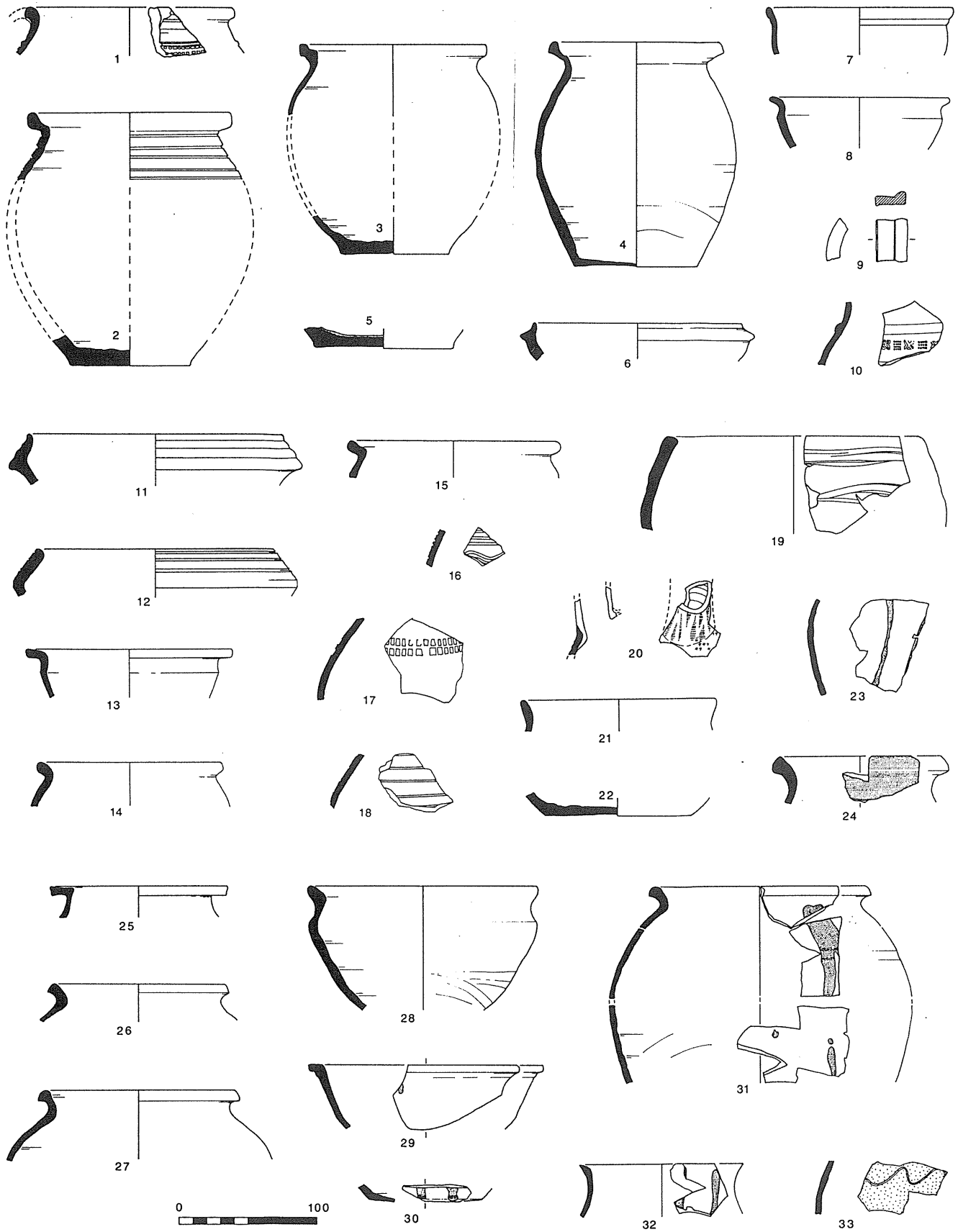


Fig. 2. Ruelle des Coucoucs: Huy-type wares. No. 1, period I; Nos. 2-10, period IIa; Nos. 11-24, period IIb; Nos. 25-33, period IIIa. Scale 1:4.

of imported *Kugeltöpfe* in a Mayen-type near-stoneware fabric (Fabric E: cf. Redknap 1988, 16), and in the "imitative" Walberberg-type fabric (Janssen 1987, 18–9). The period IIa assemblage contains some rare sherds in coarse and sandy Huy-type fabrics with a glassy residue on the inside and rarely on the outside of the base or body. A base sherd in fabric Ia (Fig. 2, No. 5) has a thick residue of an opaque brownish-yellow glaze with impurities of brown slag-like grains (?burnt clay), which is macroscopically identical with the initial decorative glaze of period III Huy-type early glazed ware (see below). The base form and size correspond with the cooking-pots described above, but it cannot be ruled out that this sherd belongs to a special type of industrial vessel, e.g. a large flat-based crucible, used in glass-making or in an enamelling process connected with metalworking. The group of fine, red, burnished-ware bowls, which are believed to be non-residual, includes a bowl with inturned flanged rim (Fig. 2, No. 6), a globular bowl with slightly everted rim (Fig. 2, No. 7) similar to Dorestad type W XD (van Es and Verwers 1980, 103; fig. 57, no. 7), and a bowl with short shoulder and everted rim (Fig. 2, No. 8) of Dorestad type W XB (*ibid.*; fig. 57, no. 2), which is related to the many variants of Merovingian carinated bowls so far recovered from production contexts in Huy. The fragment of a wheel-thrown handle (Fig. 2, No. 9) in the fine burnished white ware fabric 9a, probably belongs to a pitcher or jug; technologically it is a clear precursor of the Carolingian red-painted fine white ware group (see below, p. 41). A shoulder fragment with complex rouletting (Fig. 2, No. 10) in the black burnished fabric HUYT 6 is presumed to be from a type of bowl which has been linked to products from kiln 5 on the Huy Batta site (Willems 1994b, fig. 15, nos. 40–2; see also endnote 3). A general 8th-century date range for the deposition of the period IIa assemblage can be assumed.

Period IIb

Sherds recovered from this *stratum* show a considerable degree of abrasion and stained surfaces, obviously from exposure on the surface of the street layer, where they were probably deliberately dumped over a long period as hard core. There are only a few joining sherds in this assemblage, and no complete profiles, but nevertheless they provide some insight into the further ceramic development of Huy-type wares. From the relative proportions of the various Huy-type fabrics here, it can be deduced that the production of coarse gritty buff ware, and perhaps also fine red burnished ware, declined or even ceased in favour of relatively hard-fired, coarse gritty and sandy reduced wares and fine white ware, which may often still have burnished

surfaces. Sandy reduced wares are the most common in this context group. The forms comprise bowls with inturned flanged rims, which usually bear incised or burnished horizontal grooves, produced in both coarse gritty (Fig. 2, No. 10) and sandy fabrics (Fig. 2, No. 11), further carinated bowls (Fig. 2, No. 12) and a variety of cooking pots and ?pitchers with simple rounded or lid-seated everted rims (Fig. 2, Nos. 13–5); these last are made predominantly in the hard-fired sandy reduced fabric group HUYT 4. Decorative patterns are quite simple and consist of incised horizontal grooves and/or wavy lines (Fig. 2, No. 16) and square (Fig. 2, No. 17) and diamond rouletting. The vessel forms are usually rounded, the bases are flat and wire-cut. Fine black burnished wares, if not residual, may still be in production. A shoulder sherd is decorated with the common incised grooves (Fig. 2, No. 18); a large globular bowl (Fig. 2, No. 19) reminiscent of Dorestad form W XF (Van Es and Verwers 1980, fig. 57, nos. 17–8) has burnished lines. Fine burnished white ware is well represented. A shoulder fragment from a ?pitcher bears zones of diamond rouletting next to a vertical, inserted ?tubular spout with burnished streaks (Fig. 2, No. 20), resembling a vessel from the northern French site of Carvin (cf. Piton (ed.) 1993, cover no. 3). A rim sherd (Fig. 2, No. 21) is probably from a large beaker. A flat base (Fig. 2, No. 22), also in the burnished white ware fabric HUYT 9a, is knife-trimmed. The earliest occurrence of red-painted decoration on this fabric type, is on a sherd with simple ?brush-applied strokes (Fig. 2, No. 23) and an everted squared rim (Fig. 2, No. 24) which resembles extensively red-painted Carolingian vessel-types from St Denis (Lefèvre 1993, 278–80; figs. 19–28). Knife-trimmed convex bases in fabric HUYT 9d occur for the first time within the sequence.

In previous years several rich deposits have been documented in Huy, which contained a very similar range of vessel-types (*Niveau Carolingien inférieur*: cf. Willems 1990–91 a and b). One of these assemblages is associated with a coin of Ludwig the Pious (*ibid.*, a, 43) indicating the first half of the 9th century for its deposition. The type of bowl with inturned flanged rim (Fig. 2, Nos. 10–11) is well paralleled by an example from the important Carolingian kiln-site at Saran (Loiret), for which a general 9th-century date has been suggested (Chapelot 1970, fig. 21 H). A probable Huy-type bowl was found in an early-medieval context in Liège (Hoffsummer and Peters 1984, 279; fig. 5, no. 5). The wider distribution of Carolingian black and grey wares of Huy type has not yet been fully analysed. Still, the close visual resemblance of fabric HUYT 6 to a major cluster of the various Tating-type ware fabrics hints at the Middle Meuse valley as one of the possible sources for Tating-type ware.

To this presumed Meuse valley group with fabric HUYT 6, belong Tating-type sherds from a mid-9th century context in York, Wellington Row (Mainman 1993, 561; fig. 238, no. 2409), Ipswich (Keith Wade pers. comm.), and from the Peabody site, Chandos Place, London, classified as North French Blackware C (Blackmore 1989, 85; fig. 32, nos. 64–5). The forms of the London vessel, an ovoid spouted pitcher, and of a similar pitcher from the same site (*ibid.*, 87; fig. 32, no. 68) are remarkably close to the standard shape and size of period III Huy-type early glazed pitchers (e.g. Fig. 3, No. 1), and even closer to their parallels in red-painted white ware (Fig. 5, No. 3). The morphological relationship may be more than accidental, and could suggest the derivation of early glazed ware forms from relatively late variants of Tating-type ware, which may even have been made in the same Carolingian industry in the Middle Meuse valley, possibly at Huy.

A number of grey ware sherds from Hamwic, in fabrics Timby 152/Hodges class 15 (Timby 1988, fig. 13, nos. 262–81), Timby 186/Hodges class 25 (*ibid.*, fig. 14, nos. 320–2) and Timby 189/Hodges class 27 (*ibid.*, fig. 15, no. 343), together with a minor part of the reduced ware imports to Saxon Southampton (fabric 917/ North French Early Blackware; Duncan Brown pers. comm.) may well be Meuse valley imports, featuring fabrics HUYT 2a and the group HUYT 4. The forms and types of decoration are all known from period IIb assemblages in Huy (Willems 1990–91 a and b; *idem.* 1994b, fig. 17; Dandoy *et al.* 1995, fig. 24:1, no. 1). Apparently, reduced wares with fabrics HUYT 2a, 4 and 6 are also found in Dorestad, comprising the possibly related, but as yet unprovenanced Dorestad fabrics 13, 14 and 15 (Bardet 1995, 230–2): the associated forms WV, VI and X (van Es and Verwers 1980, 90–105) are again well known from Huy, above.

It is suggested that the period IIb layer, which includes some rare Mayen F-type and Walberberg-type imports, was deposited in the later 8th and first half of the 9th century.

Period IIIa

Stratigraphically the finds contexts ascribed to this period are somewhat heterogeneous; on top of a sterile fluvial deposit, which clearly sealed part of the period IIb occupation south-east of Ruelle des Coucous, a layer of dirty loam was deposited. It extended to the edge of the street, where it was thinning out while the concentration of pottery sherds increased. Matching sherds from individual vessels may therefore have survived different conditions depending on their deposition, either in the loamy layer from where they are fresh and clean, or in the street surface from where they are small, abraded and stained from having been exposed and

walked over. Matching sherds in the same bad condition found in the following soft black layer of period IIIb, may indicate considerable damage to the period IIIa street surface, probably from levelling works connected with the deposition and spread of the black layer. This stratigraphic ambiguity and partial admixture complicates a full assessment of the period IIIa assemblage, and only securely attributable finds have been included here.

From the composition of this small group it is evident that a drastic change had occurred in the Middle Meuse ceramic tradition, in a production phase presumably around or after the mid-9th century. Reduced wares are not featured anymore, much in contrast with the group HUYT 9 fine and fine-sandy oxidised wares. This preference for white wares coincides with a vogue for red-painted decoration and the inception of an entirely new style of decoration, namely overall lead glaze. Has the proportion of suitable white ware been deliberately increased, in order to compete with previously established inter-regional ceramic styles, notably red-painted wares from the Mayen region (Redknap 1988, 16; fig. 8) and from northern France? The hypothetically independent and autochthonous invention of early glazed ware, which was certainly aided by the availability of suitable white wares, will be discussed below.

The most common vessel type in this assemblage is the globular cooking pot with knife-trimmed convex base and a variety of horizontally everted (Fig. 2, No. 27) and, more frequently, short, thickened “snout”-shaped rims (Fig. 2, Nos. 26–7; 31), which closely resemble the typical Carolingian forms WIIA and WIIIA of the Dorestad typology (Van Es and Verwers 1980, 71–3; figs. 29, and 82–3; fig. 36). Undecorated, often hard-fired specimens are presumably cooking pots, which might imitate or replace the previously imported Mayen-type *Kugeltöpfe* in local fabrics HUYT 9c or 9e. A finely burnished and red-painted vessel (Fig. 2, No. 31) is probably a pitcher. Vertical strokes of thick red-painted decoration have also been applied on a spherical bowl with everted and squared rim (Fig. 2, No. 29), and a burnished convex base (Fig. 2, No. 30). A similarly decorated beaker with curved shoulder and triangular rim (Fig. 2, No. 32) is reminiscent of a probable Huy-type import from a 9th-century context in Hamwic (Addyman and Hill 1969, 92; fig. 34, no. 1; Hodges 1981, fig. 3, 2, no. 18). A carinated bowl (Fig. 2, No. 28) is undecorated. Overall decorative glaze makes its earliest appearance on a vessel with several zones of incised horizontal wavy lines (Fig. 2, No. 34), most likely an ovoid pitcher of the type described below. This assemblage is probably contemporaneous with the presumed latest phases of occupation in Dorestad and Hamwic, around the mid 9th century. The

stratigraphy and close resemblance of this context group to the following assemblage point to deposition shortly before the spread of the period IIIb black layer, i.e. in the course of the third quarter of the 9th century.

Period IIIb

The thick, charcoal-laden black layer assigned to period IIIb covers a considerable area towards the early-medieval *portus*. It is remarkably homogeneous and shows no internal stratigraphy or compressed surface. Most of the pottery is well-preserved, the sherd-size is relatively large, and many sherds match. There is no evidence for a slow build-up of this layer, which would be expected from an extensive dump of domestic refuse. Industrial waste is absent, in contrast to previous layers. If this rich finds assemblage represents household waste, it is likely that it was deliberately deposited within a relatively short period, reflecting intensive non-industrial occupation close by. It is perhaps more plausible to interpret this layer as collected burnt material, which was spread after destruction by fire, an assumption which fits the wide horizontal distribution of matching sherds. A comparable and roughly contemporaneous layer in St Peter's abbey in Gent has been associated with clearing works after the site's destruction by Vikings c. 879 (Raveschot 1979, 98; *idem*. 1989, 231).

The pottery assemblage from the Ruelle des Coucous black layer shows little difference in its composition from that recovered from the period IIIa contexts: fine-sandy oxidised wares of fabrics HUYT 9c and 9d predominate, but fine burnished white ware still occurs. An abundance of well-made, standardised and often highly-decorated vessel-types points to a flourishing production phase of the local or regional industry. Two lines of production can be distinguished:

1. Early glazed ware, accounting for 5% of Huy-type ware sherds, is represented by a set of extensively glazed table ware, i.e. an ovoid spouted pitcher with a matching ceramic lid, and a bag-shaped beaker. In addition to overall glaze, these vessels frequently bear elaborate plastic decoration.

2. Other wares, 95% by sherd count, are represented by globular cooking pots and jars, globular and ovoid spouted pitchers, and various types of bowls and bottles. These wares may either be undecorated or have red-painting and plastic decoration in different combinations. Minute random glaze spots can be found on 5% of these "unglazed" wares, yet they are not believed to be deliberately glazed.

As well as the common fabric types of group HUYT 9, vessels of both classes share distinctive technical

features. Bases are generally convex and trimmed and scraped inside and out. Spouts are wheel-thrown and tubular or slightly conical, with an everted "rim", and a knife-cut edge to be inserted through a hole in the body and then smeared on the outside, often using an additional clay strip (Fig. 5, No. 2). Alternatively, they were attached under the rim and then smeared over it, but placed in the reverse position (Fig. 5, No. 18). Handles are generally cut, wheelthrown straps; they are frequently grooved with a central vertical ridge resulting from their having been attached under the rim and then smeared across it with two fingers (Fig. 5, No. 1). Shoulder-set handles are rather flat. The most frequent rim forms are everted and thickened or parallel-sided, with a rounded, squared, or rarely, a tapering edge. They are often lid-seated, i.e. internally hollowed. "Snout"-shaped rims are rare here compared with period IIIa. The outer surface of fine white ware in fabric HUYT 9a is generally burnished or slurred, while fine-sandy wares appear to be smoothed, perhaps by wiping. As a rule, external girth grooves were avoided or carefully removed, especially in the shoulder zone, which, however, may have a pronounced cordon (Fig. 3, No. 12; Fig. 5, No. 3). From their similar technical and decorative features, both the glazed and unglazed wares were probably made in the same industry. Random "accidental" glaze spots on some of the sherds of unglazed wares may indicate that they were fired alongside glazed wares.

Early glazed Huy-type ware

Huy-type early glazed ware almost exclusively uses the fairly hard-fired fine-sandy fabrics HUYT 9c and 9d, though rare examples occur in fabric 10. The glaze is lead-based, and if well-fired, even, clear and glossy, or sometimes opaque; the adhesion to the body is good. Its colour is usually a pale yellow to yellow (Munsell 2.5Y 7/4-8). A less frequent brownish-yellow colour (10YR 6/8) often shows abundant reddish-black iron specks (10YR 2.5/1). On a slightly reduced body the glaze can be olive-yellow (5Y6/ 6-8) or greenish-yellow. Underfired crusty and bubbly greyish glaze occurs and may indicate slight wasters. Zones of extensive glazing are usually very finely crackled, but show no pitting. A diagnostic feature of period III early glaze is the inclusion of protruding coarse reddish particles <3mm, in the glaze (e.g. Fig. 3, Nos. 1; 13; 25). These particles are visually identical with those found in the internal glaze of a period IIa industrial vessel (Fig. 2, No. 5). They appear to consist of burnt, sometimes slag-like, red-firing clay or loam, and are presumably connected with the processing of the raw material used for the glaze.

The general aspect of the smooth, even and

MIDDLE MEUSE VALLEY CERAMICS OF HUY-TYPE: A PRELIMINARY ANALYSIS

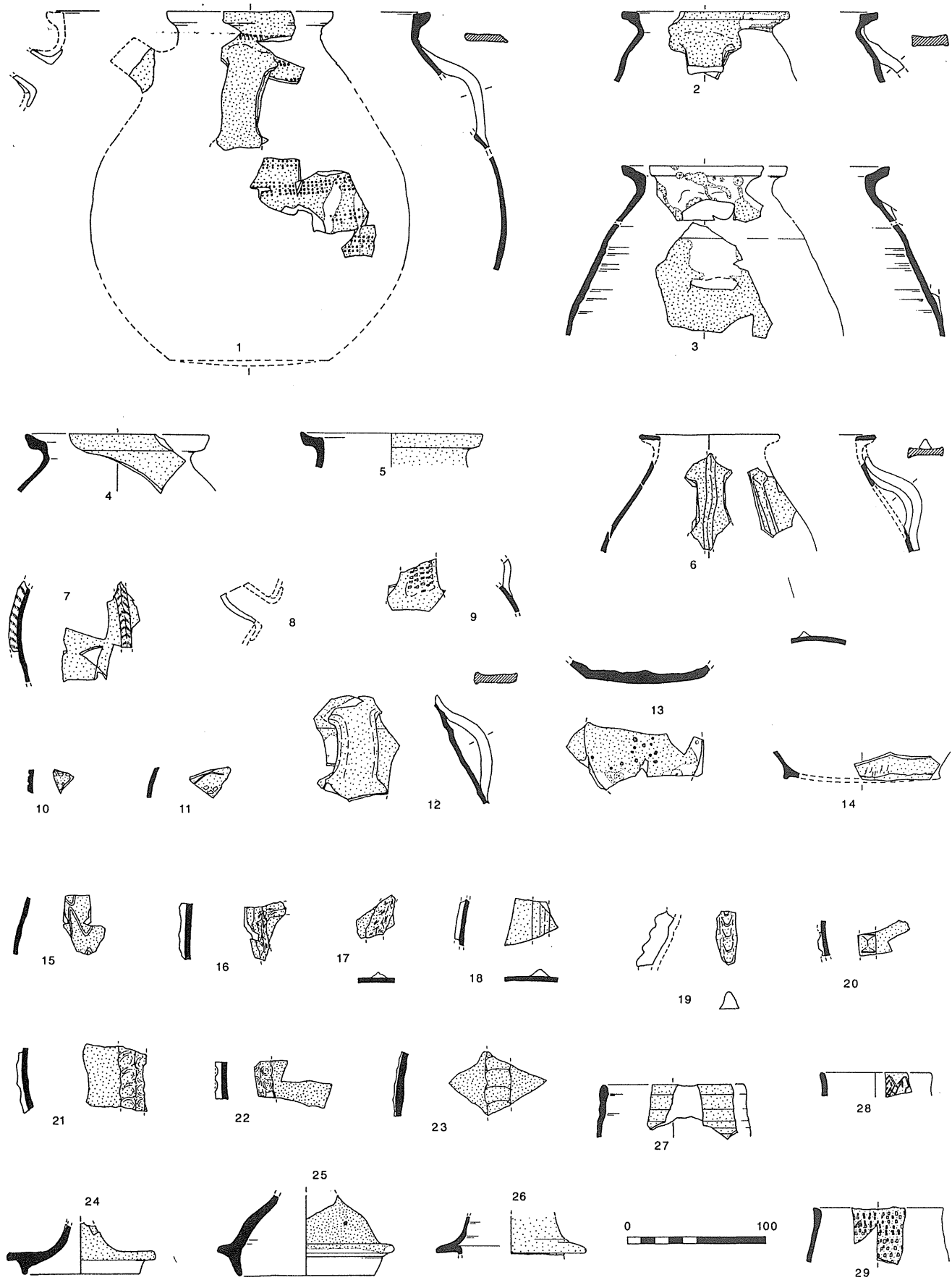


Fig. 3. Ruelle des Coucoux: Huy-type wares / Early glazed ware. Nos. 1-29, period IIIb. Scale 1:4.

unpitted brilliant yellow glaze which is typical of Huy-type early glazed ware indicates the use of leadprotoxide (αPbO , litharge), which is usually described as a product of the oxidising roasting of (scrap-) lead in a reverberatory furnace (Verhaeghe 1968; Newell 1995). The clay inclusions may therefore be interpreted as scraped-off particles from the clay-lining of such furnaces. However, if early glazed Huy-type ware was produced in the proto-urban settlement of Huy itself, and this is quite plausible in the light of the waster sherds found, then another possible source for litharge is much more likely.

There is numismatic evidence that the important Carolingian mint at Huy maintained the issue of silver coinage during the period of economic decline after the mid 9th century (Lothar I, Charles the Bald, Ludwig II or III, and even Ludwig the Child), in marked contrast to the hiatus known at other mints of the Rhine/Meuse region. This may perhaps be explained by an independent supply of silver from regional sources, namely silver-bearing lead-sulphide (PbS , galena) from mines in the Namur region and the northern Eifel mountains. In a specific metallurgical process (cupellation) the silver is separated by constant roasting of the galena ore in shallow furnaces, until the emerging lead is fully oxidised into powder, litharge, and thus can be scraped off and separated from the residue of solid silver (Bachmann 1977). Since there is sufficient archaeological evidence for the proximity of metalworking and ceramic production in the proto-urban settlement of Huy, presumably considerable quantities of litharge powder as a mere by-product of cupellation were readily available to local potters. The accidental glazing of industrial vessels was certainly known. Litharge powder from cupellation could be either directly sprinkled onto vessels which were prepared with an adhesive binder, or applied as part of a glaze solution or slip. It was doubtless the ideal agent for the inexpensive mass-production of fine-quality glazed ware in an advanced industrial environment such as Huy. It is obvious that the distinctive type of litharge powder which was probably used for early glazed Huy-type ware, was not sieved, because it was not only contaminated with particles presumably from the furnace lining, but also contained some coarse, incompletely roasted galena crystals and/or not fully oxidised lead particles from the cupellation process. These coarse compounds might be responsible for the occasional, typically pitted, glaze spots, on "unglazed" wares and under the base and rim of glazed wares (Fig. 3, Nos. 3; 13), because during the firing process, they could easily fall or slip off glazed vessels if their integration into the binder or glaze solution was inadequate.

The current working hypothesis is that of an

independent and original invention and development of early glazed ware in Huy, in about the mid 9th century, as a result of the "joint venture" of the local metalworking and ceramic industries, which were likely operated under a common aristocratic or ecclesiastical patronage. The reappearance of glazing technique in the medieval ceramic development of north-west Europe is traditionally considered to be dependent upon an influx from Byzantium and the Mediterranean, and the gradual dissemination of glaze technology via Italy and France (Stevenson 1954; Hurst 1969; Tischler 1969; Verhaeghe 1969). However, it is perhaps more plausible that the initial production of early glazed ware on an industrial scale in north-west Europe simply originated in the conscious and decorative use of a well-known technical effect, once suitable white wares and a constant supply of litharge were available to highly-skilled potters in an industrial centre such as Huy.

Early glazed Huy-type ware is a highly-specialised range of luxury tablewares, with only four forms known to date. The main form is an **ovoid pitcher** with a convex base (Fig. 3, Nos. 13–4) a pronounced shoulder (Fig. 3, Nos. 12; 19) usually two shoulder-set handles and a shoulder-set, cut, tubular spout (Fig. 3, Nos. 1; 8). This pitcher type was produced in three standard sizes; small *c.* 20cm in height with *c.* 10cm rim diameter (Fig. 3, Nos. 6–7); the most common by far, medium-sized *c.* 26cm in height with *c.* 12cm rim diameter (Fig. 3, Nos. 1–3) which may also have three handles (cf. Lauwerijs 1987–88, fig. 3, nos. 1A–B); and large, *c.* 30cm in height with *c.* 13cm rim diameter, represented here only by some less curved and thicker body sherds (Fig. 3, No. 23) though known from Maastricht (Dijkman 1993, 223; fig. 7) and Alkmaar (Cordfunke 1990, 355–6; fig. 26B; Verhaeghe and Janssen 1984, 20). The rims of all three sizes are horizontally everted and thickened, with a slightly squared, rounded or, rarely, a pointed edge (Fig. 3, Nos. 4–5). The glaze covers almost the entire outer surface, but may thin out towards the base, and it often collects around the rim. This might indicate that some of the vessels were fired upside-down. Occasionally, the zone underneath and above the handles remains free of glaze, possibly due to an incomplete application of either the binder or glaze slip, which was probably done with a brush (Fig. 3, No. 3).

Numerous types of plastic decoration occur, which also extend over the handles and spouts; square and diamond rouletting (Fig. 3, Nos. 1; 9–11), zones of rounded, raised bosses (cf. Lauwerijs 1987–88, fig. 3, nos. 1A–B), incised wavy lines (Fig. 3, No. 15) and various combinations (Fig. 3, No. 11). Applied clay strips are usually vertically arranged, but may also be applied around the base (Fig. 3, No. 14) or in right angles (Fig. 3, No. 16).

Strips with a triangular section may be plain (Fig. 3, Nos. 6; 14; 18) have lateral finger impressions (Fig. 3, Nos. 16–7) which can be extremely fine and precise (Fig. 3, No. 7), or bear rounded impressions which were executed with the fingertips (Fig. 3, Nos. 21–2). A high-ridged strip from a large type of pitcher was probably shaped with a tool (Fig. 3, No. 19). A very distinctive flat strip with knife-cut edges bears a row of finely knife-shaped pyramidal bosses (Fig. 3, No. 20), a design also known from other sites in Huy (Lauwerijs 1987–88, fig. 3, no. 3; Willems 1990–91a, fig. 20, nos. 124–6) and a presumed Huy-type import at Burgh (Braat 1960, pl. XLII, no. 2.8). Another Huy-type import at Burgh (*ibid.*, pl. XLII, no. 2.1) has a distinctive type of applied strip decorated with a single row of finger impressions; the design is also known from Huy (Lauwerijs 1975–76, fig. 3, no. 41). Sharply ridged impressions on a strip in the period IIIb assemblage (Fig. 3, No. 23) were made with the side of the thumb; this feature is described as decorative element M69 of the Stamford typology associated with the Stamford castle kiln, dated before c. 900 (Kilmurry 1980, 22 and see below p. 51). The refined, precisely executed variants of applied strips seem especially to be restricted to a period III production phase of the Middle Meuse industry and do not occur in any subsequent context group of the sequence.

Early glazed pitchers are associated with fitting glazed lids (Fig. 3, Nos. 24–6). The outer surface of the conical or domed body is entirely glazed, while the narrow rim below the flange, as well as the inside, are usually unglazed. A complete example of the conical form (Fig. 3, No. 24) with knife-trimmed top has been found in Huy, Rue d'Amérique (Willems 1990–91a, fig. 19, no. 109). A domed variety (Fig. 3, No. 26) resembles a presumed Huy-type import at Antwerp (Verhaeghe 1995, 159, fig. 112).

The early glazed **beakers** which are represented in the period IIIb assemblage are all of a bag-shaped type with convex base and slightly curved, upright walls (Fig. 3, Nos. 27–9). The exact height could not be determined, but is believed not to exceed c. 10cm; rim diameters vary between c. 8 and 10 cm. Decorative motifs are similar to those of the pitchers. A small beaker (Fig. 3, No. 28) has a delicate lattice and zig-zag decoration of finely incised lines, comparable with a Huy-type beaker from Hedeby (Janssen 1987, fig. 22, no. 9; Lüdtke 1992, fig. 2, no. 5). A larger specimen (Fig. 3, No. 29) shows extensive, overlapping square rouletting. A Huy-type beaker decorated with thumb applied strips is known from Burgh (Braat 1960, pl. XLII, no. 2.2). An undecorated beaker (Fig. 3, No. 29) has pronounced girth grooves, which may be decorative.

An exceedingly rare type of overall-glazed

spherical bowl with a pedestal foot has a rim diameter c. 17cm and height c. 12cm. The type is not represented in the period IIIb assemblage, but a residual specimen is contained in the sequence. Several other examples are known from domestic contexts in Huy (Lauwerijs 1975–76, 122; fig. 2, no. 12; Willems 1990–91a, 15–6; fig. 17, nos. 74–5; *idem.* 1990–91b, 35; fig. 13, no. 82); an unpublished rim-fragment with a pierced lug is probably also from this type of bowl (Jacques Willems pers. comm.). All of these bowls, some of which were described as lamps, were found in presumed late-Carolingian contexts.

The Mayen relationship

It has been mentioned above that early glazed Huy-type pitchers are formally related to possibly late, i.e. 9th-century, variants of Tating-type pitchers, probably from the Meuse valley. It is similarly significant that certain diagnostic designs on early glazed Huy-type ware are paralleled by the decorative style of Mayen-type black burnished ware (Redknap 1984; *idem.* 1988). Finely incised lattice and zig-zag decoration is a common feature of Mayen-type black burnished ware and is also found on Huy-type wares (see above). Decoration with knife-shaped pyramidal bosses which occurs on both Huy-type early glazed ware (Fig. 3, No. 20) and Mayen-type black burnished ware (Van Es and Verwers 1980, 95; fig. 53, no. 6; Redknap 1984, fig. 8, no. 4) appears especially to be too distinctive and rare to hint at a merely superficial relationship. The Mayen industry also produced a type of ovoid or globular pitcher with everted lid-seated rim, inserted and cut tubular spout, ridged shoulder and rim-seated strap-handles (Redknap 1984, 408; fig. 5, nos. 1–2), which was manufactured in black burnished ware as well as red-painted white ware (*idem.* 1988, 17; fig. 8, nos. 1–2); the form and style of painting are well paralleled by red-painted and early glazed Huy-type ware as found in period IIIa/b layers of the Ruelle des Coucous sequence. The distinctive type of pedestal-footed bowl, too, occurs in both the Mayen and Middle Meuse industries. These technical, morphological and stylistic similarities seem to be chronologically relevant and might suggest direct contact and exchange between two roughly contemporaneous industries in Mayen and the Huy area, perhaps around the mid 9th century; these contacts are proved not least by the importation of Carolingian Mayen-type *Kugeltöpfe* to Huy. A late Merovingian to early Carolingian chronological framework has been proposed (Redknap 1988, 13–6; Tab. 1), but might not the production and style of Mayen-type black burnished and red-painted wares have continued well into the 9th century, to become a

possible influential source for the forms, technique and decorative style of red-painted and early glazed ware in the Middle Meuse valley? This extended chronology is supported by the secure date in the first half of the 9th century for the burnished jug with incised zig-zag lines from Trier, Altbachtal (cf. Redknap 1988, fig. 14), and the continuation of conservative trellis-burnished blackwares in a Merovingian tradition until at least the mid 9th century in north-eastern France, notably in the Escaut region around Douai and Arras. The 9th-century kilns at Baralle, for example, obviously produced both trellis-burnished blackware and brush-painted white ware with lattice designs in the same production context (Jacques 1994, 89–100). In the consumer milieu of Huy, the demand for black burnished wares apparently collapsed with the local invention and availability of early glazed ware, which, however, adopted some of the former's most intricate decorative patterns.

Distribution

Numerous finds of early glazed Huy-type ware in presumed late-Carolingian contexts across north-west Europe hint at a remarkably wide distribution by the last quarter of the 9th century. A significant quantity of these imports has been recovered in the **Low Countries** from layers which have tentatively been associated with Viking destruction between 879–92; several sherds of pitchers have been identified in the basic layer 10b of the Duisburg, Alter Markt sequence, which might be connected with the documented Viking destruction and winter camp of 883/4; more sherds have been found in a dendrochronologically-dated well of the same period (Krause 1983, 192; *idem.* 1988, 44; Günter Krause pers. comm.). The spout of a Huy-type pitcher was discovered in a possible Viking destruction layer of c. 879 at St Peter's abbey in Gent (Raveschot 1979, 98; *idem.* 1989, 231). In the same Escaut/Scheldt region, other fragments of early glazed Huy-type pitchers were found in presumed late Carolingian layers of the Fonderie de Canons site in Douai (Demolon and Barbieux 1979, 323; Etienne Louis pers. comm.) together with a primitive local glazed ware. Others are known from the early medieval rural settlements of Proville and Les Rues des Vignes (Florin 1983, 157). In the lower Scheldt region finds of early glazed Huy-type pitchers come from possible late Carolingian, pre c. 950 contexts in Brugge (Verhaeghe *et al.* 1991, 156–7). Presumed early medieval contexts in Antwerp have produced Huy-type pitchers as well as lids (Verhaeghe 1968; *idem.* 1969; *idem.* 1995, 156 *passim*; figs. 111–2).

Significantly large and homogeneous assemblages of early glazed Huy-type ware have been excavated

in the circular fortresses of coastal **Zeeland**, which were probably part of a defence line against the Viking threat established c. 880–90. The finds from Middelburg and Oost-Souburg (Braat 1941) were not well stratified, but the thoroughly excavated and analysed stratigraphy at Burgh op Schouwen (Braat 1960) confirmed the association of early glazed Huy-type ware pitchers and beakers with late Carolingian Rhenish ware from the Vorgebirge, as deposited in the basic layer of the settlement; this was thought also to give a late-9th century date to the development of Low Countries early glazed ware (*ibid.*, 96–7). The circular fortress of Oost-Souburg produced a very similar assemblage of late Carolingian Rhenish and early glazed Huy-type ware; the latter group, consisting of pitchers, lids and beakers, has recently been studied, but, owing to problems of residuality and insufficient stratification on the site, it has not been dated to the initial phase of occupation c. 880–90, but to a subsequent period c. 900–75/1000 (Verhaeghe 1995, 160). However, the bulk of the early glazed pottery from Oost-Souburg shows very distinctive features of period III Huy-type ware in fabric, glaze, morphology and decoration, suggesting a late 9th-century date for the original deposition of the largely residual, widely spread material; many sherds are matching and apparently belong to a limited number of individual vessels. It should not therefore be ruled out that this group of Huy-type early glazed ware is connected with the initial, presumably military or aristocratic occupation of the site c. 880–90. The coastal region has revealed other finds of early glazed Huy-type ware from the circular fortress of Veurne (Frans Verhaeghe pers. comm.), and the *terp*-sites of Werken (soil 3: cf. Vanthournout 1991, 195; and pers. comm.) and Spijkenisse (now in the R.O.B. depot at Middelburg; Ellen Vreenegoor pers. comm.). The pitchers from Valkenburg near Leiden (cf. Braat 1960, fig. 24) and Alkmaar (Cordfunke 1990, 355–7) may be contemporaneous, i.e. late Carolingian. There is surprisingly little evidence for regional distribution of early glazed Huy-type ware in the Middle Meuse valley, beside the incomparably rich finds at Huy, and a pitcher handle from Liège (Hoffsummer and Peters 1984, 282; fig. 8, no. 1) which might be from an early type of pitcher. A large Huy-type pitcher from Maastricht has been dated to the later 9th or 10th century (Dijkman 1993, 223; fig. 7); its slightly coarse potting may point to an earlier 10th-century date. In the **Rhineland** early glazed Huy-type ware has been found in Neuss¹¹, Duisburg, above and Elten (Janssen 1970, 280–2; fig. 14; pl. 25), where a sherd with diamond-rouletting and a half-complete vessel with extensive square rouletting were found. This vessel, which has a clear handle-scar, is certainly a small pitcher of Huy-type. It was excavated from a post-pit of the

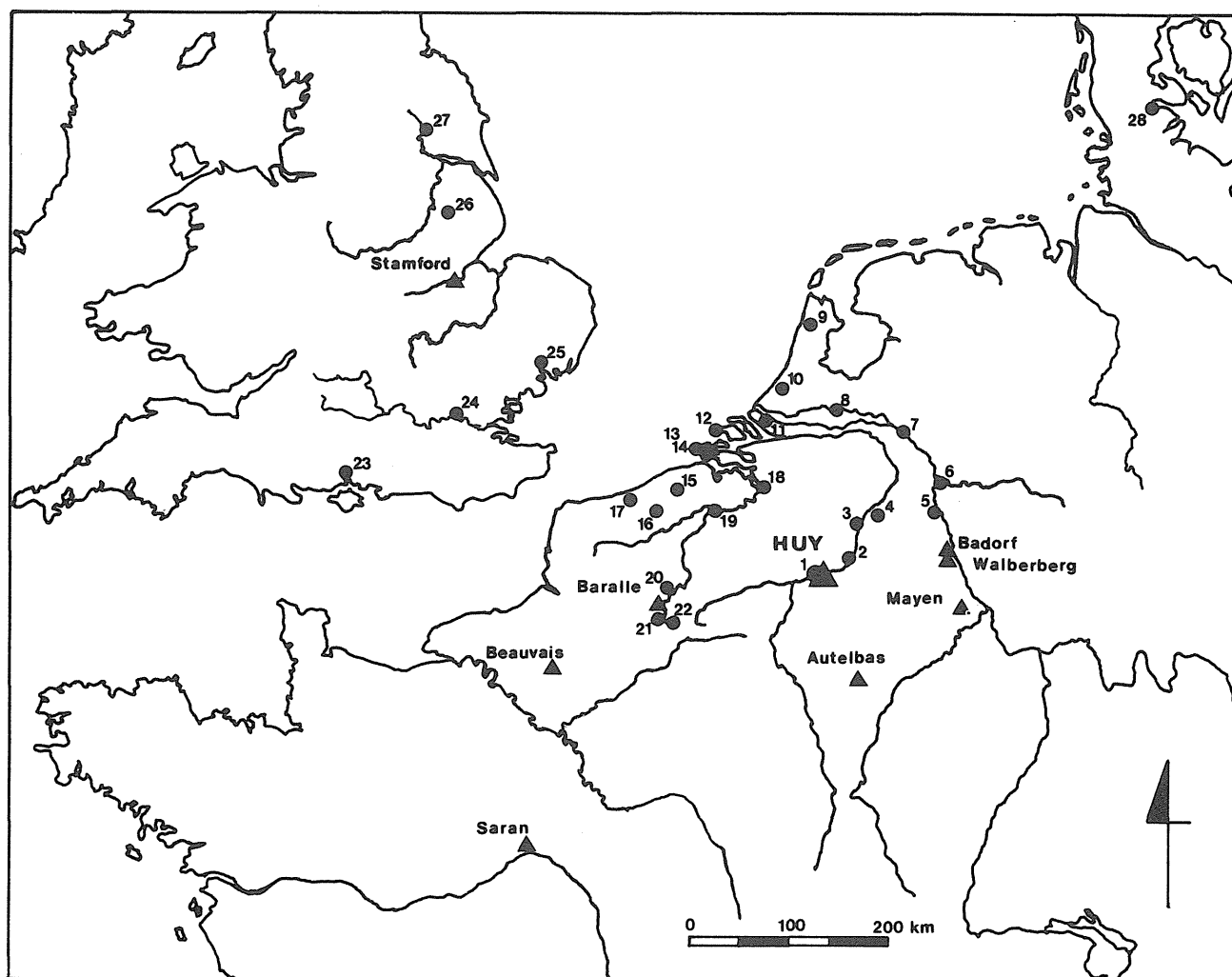


Fig. 4. Map of north-west Europe showing the known findspots of late Carolingian Huy-type wares (filled circles), and Carolingian production centres mentioned in the text (triangles).

1 Huy	8 Dorestad	15 Brugge	22 Les Rues des Vignes
2 Liège	9 Alkmaar	16 Werken	23 Hamwic
3 Maastricht	10 Valkenburg	17 Veurne	24 London
4 Breberen	11 Spijkenisse	18 Antwerp	25 Ipswich
5 Neuss	12 Burgh	19 Gent	26 Lincoln
6 Duisburg	13 Middelburg	20 Douai	27 York
7 Elten	14 Oost-Souburg	21 Proville	28 Hedeby

palatium building IIIA, dated to *c.* 900 (Binding 1970, 31; fig. 11); it is heavily abraded and was obviously old when deposited. A pitcher from Dorestad (Van Es and Verwers 1980, 130; fig. 76) has been ascribed to the high medieval occupation of the site, but its form and rim profile make a late-Carolingian date more probable.

There are numerous imports of early glazed Huy-type ware in **England**: by far the largest assemblage, dozens of partially matching pitcher-sherds with early features, has been found in Ipswich early Late Saxon contexts (Keith Wade pers. comm.). A few sherds, presumably of pitchers, have recently been found in Lincoln, on the Flaxengate and

Saltergate sites (Jane Young pers. comm.). The handle of a Huy-type pitcher is known from York (Mainman 1990, 452; fig. 193, no. 2250; pl. XXVb). The early glazed Huy-type pitcher from Lime Street, London, is surely the best-known and most-discussed of its class (Dunning 1959, 60–2; fig. 33; Verhaeghe 1968; *idem.* 1969; Kilmurry 1980; Vince 1985; Mainman 1990; Verhaeghe 1995). It shows a slightly more developed rim profile, coarser potting than average, and the tip of its spout is not neatly cut. While these features rather point to an earlier-10th century date, they might still be within the range of the period III production. The stray find of an early glazed base sherd now in the Museum

of London (Lyn Blackmore pers. comm.) is also of Huy-type, and shows features of period III fabric and glaze. A few early glazed pitcher sherds possibly of late 9th-century date, from Saxon Southampton (Southampton fabric 950, Duncan Brown pers. comm.) resemble fabric HUYT 10.

Huy-type imports in **Hedeby** have been classified as Haithabu *Typ* 11, represented by a possible pitcher with rouletted decoration and a beaker with finely incised zig-zag lines (Janssen 1987, 27; fig. 22, no. 9; fig. 32, no. 10), or as Haithabu *Typ* 12, represented by a number of presumed pitcher sherds, some bearing square rouletting (*ibid.*, 27; fig. 28, nos. 16–23).

The wide distribution of early glazed, late Carolingian Huy-type ware as far east as Hedeby, in the south and east of England, in coastal areas of the Low Countries, and along the major rivers of the Scheldt, Meuse and Rhine (Fig. 4), points to a pattern of long-distance trade links, possibly with Frankish and/or Frisian merchants from the Meuse valley. Extensive trade is documented for the high medieval period, then mainly connected with the important regional metalworking and textile industries (Joris 1959). The presence of merchants from Huy and Liège on the London market *c.* 1000 (Vince 1985, 42–3) can be seen in this context, but could also reflect much earlier links possibly connected with the wine trade and the continental supply of tin. It is difficult to determine whether early glazed Huy-type ware, especially the common form of pitcher, was a prestigious, traded, commodity, merely a wine container, or simply distributed and used as the personal household property of sophisticated Frankish or Frisian traders. A complex explanatory model is suggested, for early glazed Huy-type ware is found not only in the context of emporial and proto-urban sites such as Antwerp, Duisburg, Hedeby and London, but also in a significant quantity on the *terps* and circular fortresses of the Low Countries, in rural settlements of northern France, and at the high-status site of Elten — very heterogeneous social and economic milieus. One could assume that the large scale and specialisation of the initial industry which produced early glazed Huy-type ware, together with a well-established trade network of local and regional merchants, allowed the immediate, wide distribution of the first generation of this ware; for the English finds within the Danelaw, however, even a distribution of booty from previous raids on the continent could be considered.

Still, there can be little doubt that it was a true luxury table ware, associated with refined table manners and, most certainly, wine consumption. Parallels with the long-debated status and function of Tating-type ware could be drawn, since it was a possible precursor in the very same Carolingian

market for fine table ware. Theoretically, Tating-type and other fine reduced wares generally went out of fashion when early glazed ware and other fine white wares became available in sufficient quantities. This “great change in the pattern of potteries” (Hodges 1977, 249) may have started around the mid 9th century; it was most certainly completed before *c.* 880 in a large part of north-west Europe.

Other, technically and morphologically different, early glazed wares (not discussed here) from various sources around northern and western France, and England, have lately been surveyed by Kilmurry (1980), Mainman (1990) and Verhaeghe (1995).

Other Huy-type wares

One of the most common vessel types of the unglazed group is the **spouted pitcher**. Its form is usually globular (Fig. 5, Nos. 1–2), but an ovoid shape with ridged shoulder also rarely occurs (Fig. 5, No. 3); it resembles the early glazed pitcher type. The predominant fabrics are fairly hard-fired variants of the group HUYT 9, while HUYT 10 is rare. The majority of these pitchers apparently remained undecorated. The main type of decoration is red painting, sub-divided into finger-applied and brush-applied painting. Finger-painting is in single wavy strokes made with only one finger at a time (Fig. 5, No. 3), or, more frequently, long curved strokes apparently applied simultaneously with three or four fingers (cf. Fig. 5, No. 21). The common motif of two wavy lines down the handle is similar to the decoration of a Beauvais-type red-painted pitcher from a Middle Saxon context in Wicken Bonhunt, Essex (Hodges 1981, 40–1; fig. 4.2, no. 3). The fine brush-applied decoration on Huy-type ware is generally found on finely finished specimens with fabrics HUYT 9a or 9c. Lattice patterns (Fig. 5, No. 5), narrow-spaced parallel lines (Fig. 5, No. 6) and fine radial strokes across the top of the rim (Fig. 5, No. 4) are also common upon contemporaneous northern French white wares, such as those produced in the magnetically-dated 9th-century kilns at Baralle (Jacques 1976; *idem.* 1994), and especially on Beauvais-type wares, as found in the late-Carolingian niveau I of the Basse-Oeuvre site at Beauvais (Leman 1972, 191–4; figs. 9–16; De Bouard 1973, 5–9; Frichet 1988). A lattice-decorated Beauvais-type sherd was found in the destruction layer of *c.* 879 in Gent (Raveschot 1989, 231; fig. 3, no. 1). A rim sherd with radial brush-applied lines from Brugge appears to be of Huy-type (Verhaeghe *et al.* 1991, 153–5; fig. 130, no. 1). A Huy-type sherd with parallel lines was found in the backfill of a post-hole of the destroyed wooden church at Breberen, which was possibly burnt during the Viking raids of the Meuse valley *c.* 879–92 (Böhner 1950, 194; 211–2; fig. 27, no. 14); a

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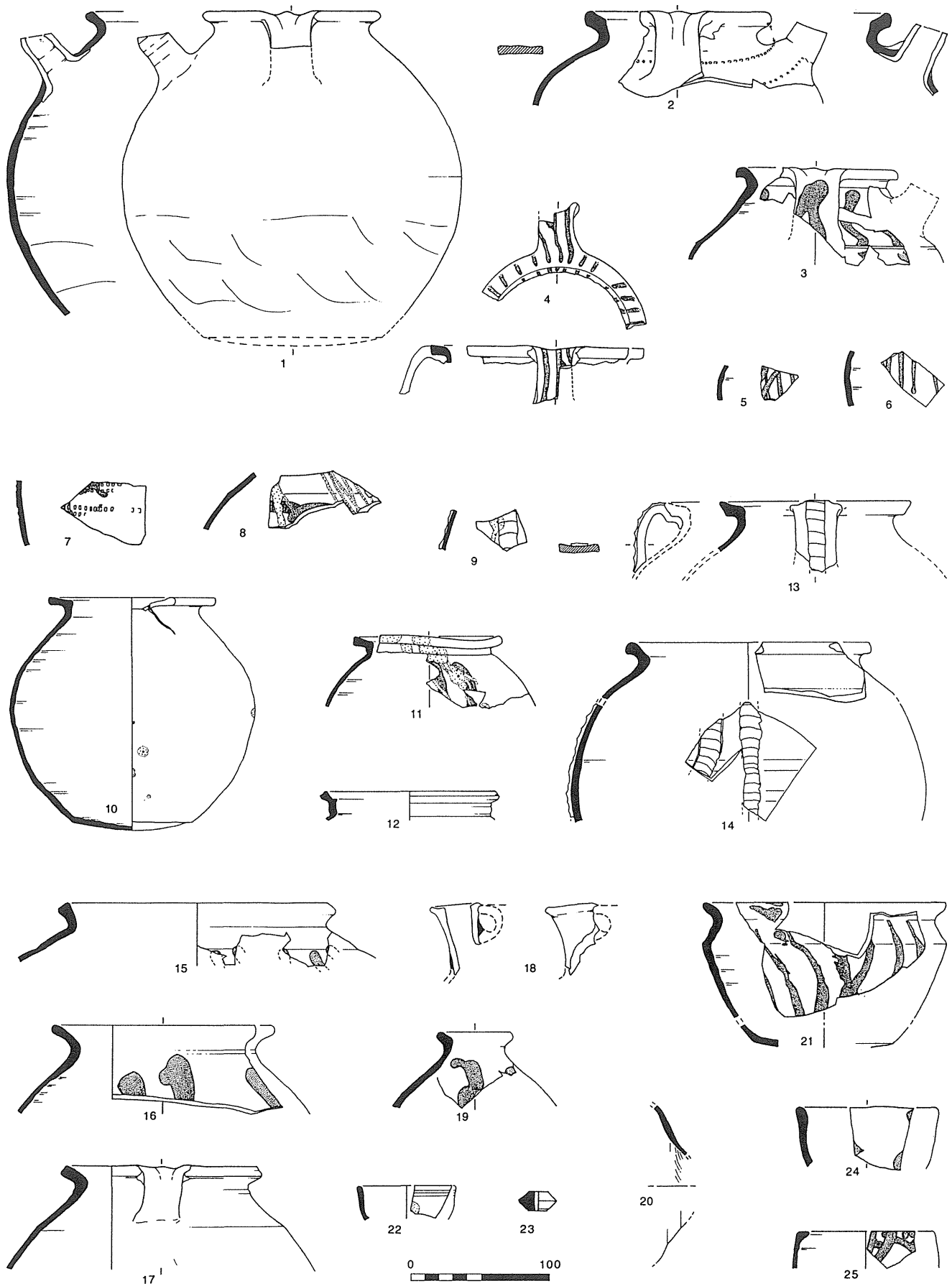


Fig. 5. Ruelle des Coucoux: Huy-type wares/ Unglazed wares. Nos. 1-25, period IIIb. Scale 1:4.

red-painted stray find from the same site is probably from a Huy-type pitcher (Böhner 1950, fig. 27, no. 8). The style of brush-applied painting is known too from Beauvais-type imports in the Middle Saxon assemblages of Hamwic (Hodges 1981, 18–19; fig. 3, 2, no. 17; Timby 1988, 91; fig. 9, nos. 174–6). Although plastic decoration is a common feature of early glazed and other wares, it is obvious that the range of such designs on unglazed wares is rather limited. One globular pitcher (Fig. 5, No. 2) has single bands of square rouletting which extend to the previously applied spout; the lateral impression of the rouletting wheel on the side of the rim points to a wheel diameter of 1.6cm. Other sherds have diamond rouletting. The combination of rouletting and red painting (Fig. 5, No. 7) also occurs on period IIIb Huy-type ware; with the evidence from Rhenish “Hunnenschans”-type ware and northern French counterparts from Baralle, which are all of the same general period, this style of decoration appears to be a typical late Carolingian phenomenon. Several sherds, presumably of pitchers (Fig. 5, Nos. 9, 13) bear flat knife-cut strips with sharply-ridged thumb-impressions (as Stamford, M69), which seem to be the only type of strip decoration on period IIIb unglazed wares. There are a few body sherds possibly from pitchers with raised round bosses, which were impressed with the fingertips from inside the vessel. Another common vessel-type is the hard-fired **globular cooking pot**, usually with everted lid-seated rim and occasionally with finger-applied red-painting (Fig. 5, Nos. 10–2). Some of these vessels have long, open cracks (Fig. 5, No. 10) and/or distortions (Fig. 5, No. 11) and may be seconds or useable wasters. A third common form is the more-or-less **globular jar** with snout-shaped, squared or rounded everted rim, generally not lid-seated (Fig. 5, Nos. 14–7). Simple strap handles may be attached (Fig. 5, No. 17); M69 applied strips (Fig. 5, No. 14) and finger-applied red-painting (Fig. 5, Nos. 15–6) are common. A rim-seated tubular spout with everted rim (Fig. 5, No. 18) may be attributed to this type of jar. Several **bottles** are contained in the assemblage, all of a globular or ovoid type with convex base, narrow neck and everted thickened rim. One example in fabric HUYT 9a is decorated with thick wavy strokes of red-painting (Fig. 5, No. 19).

Some extremely rare fragments in fabric HUYT 9c, show “jolted” interior throwing marks (Fig. 5, No. 20), which are quite typical of the “upper” part of **costrels** (cf. Van Es and Verwers 1975, pl. XV, no. 2). If these sherds really are from Huy-type costrels and not from large types of bottles, this would again raise the question whether the well-known costrel from Zelzate, deposited *c.* 870–80, has indeed a Rhenish Vorgebirge provenance (see e.g. *ibid.*, 141–5; Hodges 1981, 63; Janssen 1987,

116–20). The Zelzate costrel, unlike its presumed Rhenish Vorgebirge, Badorf-type parallels from Dorestad, has been described as having a fine-sandy, fairly hard-fired buff fabric, and a distinctively soapy, slurred, surface texture (Van Es and Verwers 1975, 144–5). It has, moreover, two wheelthrown, sharply knife-cut handles with scraped lower end, which are typical not of Rhenish Badorf-type ware, but rather of Huy-type or Mayen-type ware. Although a thorough fabric examination is hindered because the Zelzate costrel is intact, it resembles the slurred fabric HUYT 9c. The possibility of a western Belgian or northern French provenance has previously been left open by Hinz (1965, 274) and Verhaeghe (1969, 108); a Middle Meuse provenance should now be considered and scrutinised together with a possible link with the repertoire of the Carolingian Mayen industry.¹²

The **bowls** represented in the period IIIb assemblage are all of a carinated type with short, inturned shoulder and an everted parallel-sided or snout-shaped rim. Red-painted decoration with long curved finger-applied strokes is common on this type (Fig. 5, No. 21). The Carolingian type of carinated bowl and its Merovingian precursors have been extensively studied by Willems and Docquier (1983–84, 231–9). An internally sooted rim fragment is presumably from a **lamp** (Fig. 5, No. 22). A bi-conical **spindle-whorl** was made in fabric HUYT 9d (Fig. 5, No. 23). Unglazed **beakers** are quite rare: a curvilinear, thick-walled sherd is perhaps from a pedestal-footed type or a goblet; it bears red-painted spots (Fig. 5, No. 24). A finely potted HUYT 9a example with inturned, pointed rim is delicately brush-painted with a lattice of parallel lines and intermediate dots (Fig. 5, No. 25). This beaker type and its style of painting are documented from kiln 1 on the Baralle site (Jacques 1994, 92; fig. 11); the kiln has a magnetic date before *c.* 900 and is possibly connected with a production that ended *c.* 888–901, when a neighbouring abbey was deserted after Viking attacks (*idem.* 1976, 85).

The production range of period IIIb Huy-type wares can be seen in the wider context of late Carolingian ceramic development. Apparently, there are closer links with the Mayen industry and northern French technology and style than with the neighbouring Rhenish Vorgebirge. The southern Belgian, Carolingian industry at Autelbas is only vaguely related as far as the very limited and differing repertoire of its mass-produced vessel types is concerned. Some technical aspects, like the knife-cut inserted spouts and the general decorative style with coarse M69 applied strips, coarse finger-painting, brush-painted lattice designs, rouletting and incised wavy lines are, however, comparable and may even be derived

from the more advanced and innovative industry established in the Middle Meuse valley; the very rare and possibly experimental use of lead glaze in Autelbas also points in that direction (Jungen *et al.* 1985; Fairon 1994, 30–63).

The occurrence of early glazed and other period IIIb Huy-type wares in numerous European contexts of the later 9th century points to a continuing Middle Meuse pottery production until at least the last quarter of the 9th century. It is a crucial question, whether this immensely successful phase of the local or regional industry came to an abrupt end following possible Viking destruction of the infrastructure between *c.* 879–92, as indicated by documentary evidence, or whether it continued its activity well into the 10th century, perhaps even without much change of repertoire or quality.

The Stamford Castle Kiln complex

Of great significance here is the sudden emergence of a seemingly related contemporaneous industry in Stamford, Lincolnshire, probably within the same crucial period (Kilmurry and Mahany 1977; Kilmurry 1980). The excavation of the castle site produced a kiln with associated wasters of a well-made, wheelthrown ware, some of which was decorated with finger-applied red painting, distinctive thumbled applied strips, and occasional specks of presumably experimental yellow lead-glaze. The kiln was tentatively dated to the late 9th and early 10th century (Kilmurry and Mahany 1977, 180), and a continental influence, or even direct contact with an unknown production centre, was proposed. Kilmurry concluded “Such a link through a foreign potter working in Stamford is feasible, considering the disruption of towns and populace in northern France caused by the Viking raids from the mid 9th century onward; this possibility would also help to explain the origin of glaze in Stamford” (*ibid.*, 184). In a later, comprehensive report on the pottery industry in Stamford *c.* 850–1250, Kilmurry (1980) established a general typological scheme for Stamford ware fabrics, glaze types, vessel forms and the many technical and decorative elements which characterise subsequent production phases of the local industry, including its initial phase represented by the castle kiln complex. The chronology of the castle kiln was refined by a ¹⁴C date of 837 ± 77, and an archaeomagnetic date *c.* 850 ± 50. Additional numismatic evidence from the related, stratigraphically earlier context of a nearby palisade and ditched enclosure, and the general style of the wasters, suggested a late 9th-century date for the initial ceramic production at the castle site and in Stamford (*ibid.*, 30). The distinctive fabric, used only in this phase, is moderately sandy or fine-sandy

(fabric E/F) and is usually fired to grey, buff and brown hues. Forms in fabric E/F comprise more or less globular cooking pots with everted, sometimes lid-seated rims and occasional rim-seated spouts, slightly carinated bowls with short inturned shoulder and a similar type of spout, and large, handled storage jars. Flat, wire-cut bases are most frequent, but trimmed flat or convex bases also occur. The common rim type is everted and folded to a “snout”-shape. Spouts have a trefoiled everted rim, handles are wheelthrown, cut and vertically smeared to the body. The only type of plastic decoration is the M69 knife-cut strip with sharp ridges in right angles, which is usually applied vertically to the sides of large storage vessels and down the centre of handles. Red-painted decoration consists of long finger-painted strokes on the body, and radial strokes on the top of the rim. Rare spots of yellow lead-glaze contain grains of solid lead, which may indicate the use of scrap-lead¹³.

Kilmurry proposed that the initial military and industrial occupation of the castle site, with its “town-based”, fabric E/F kiln, formed part of the Viking foundation of Stamford in a transitional phase of the later 9th century, between raiding campaigns and a subsequent rural settlement; there is as yet no archaeological evidence for a pre-Scandinavian, i.e. Saxon, settlement at Stamford (*ibid.*, 145), but there is some slight documentary and placename evidence for a Saxon rural settlement (Christine Mahany pers. comm.). In search of a plausible “parent area” for the emerging pottery industry at Stamford, Kilmurry pointed to northern France, and especially the region from Normandy to the Pas-de-Calais (*ibid.*, 195). Now, the Middle Meuse valley with its industry of Huy-type pottery is another possible region. The range of vessel-forms, most technological aspects, the incidence and similar combination of red painting and glaze, and especially the use by the Stamford industry of the sharply modelled M69 strip, might have been influenced by an immigrant or displaced potter from the Huy region, *c.* 879–92. Certain features, however, such as the predominantly flat bases and the snout-shaped rims, seem to be already quite outdated in the Meuse valley by *c.* 880; trefoil spouts are uncommon in the late Carolingian repertoire of Huy-type wares, yet they occur in an earlier phase of the industry (cf. Willems 1989, 32), and perhaps still after the mid 9th century. The Stamford castle kiln production on the one hand employed morphological, technical and decorative features, which are typical of late Carolingian pottery production in the Middle Meuse valley; on the other hand these features were combined with other elements such as trefoil spouts and flat bases, which seem to be more characteristic of contemporary northern French industries. The joint activity

of potters from different regions is a possible explanation. While the emergence of the Stamford industry can convincingly be dated to the second half of the 9th century, it is not advisable to use the evidence from Huy for a more refined dating, for example to the period of the documented Meuse valley Viking raids *c.* 879–92. The establishment of a pre-Scandinavian industry in Stamford by the third quarter of the 9th century could even have been possible, considering the rather old-fashioned style of the castle kiln products, though that might merely reflect the conservative personal style of an aged potter. It is therefore highly speculative, and perhaps futile yet, to propose a single consistent source and precise dating for the obvious continental influence in Stamford.

The period IIIb assemblage of the Ruelle des Coucous sequence contains a body sherd of fairly hard-fired Badorf-type ware and several fragments from a single shell-tempered handmade bowl with high, pierced lug handles; a coastal or eastern French source and a general Carolingian date for this vessel are suggested.

Period IV

Possibly soon after deposition the period IIIb black layer was covered with a cobbled street surface, which produced no finds. As a contemporary or slightly later measure, shallow aligning street ditches were cut into the earlier layers. These ditches were ultimately filled with decayed organic material and large quantities of household waste, including pottery; it is not clear whether they were ever cleaned. The general aspect of the period IV assemblage is of a homogeneous group with a small proportion of residual material. Many large, matching and well-preserved sherds point to deposition in a relatively short period of time. The period IV assemblage is different from the previous group in more than one respect. Only 1.5% of 3650 Huy-type ware sherds show overall glaze, while 2.5% of the sherds of other Huy-type wares bear minute random glaze spots. The proportion of 9.5% bearing lead glaze in period IIIb thus falls to only 4% in period IV; moreover, quite a few glazed sherds in the latter are stained and appear residual. The consumption of glazed ware in the adjoining settlement, and possibly also its local or regional production, may have continued, but more than halved in this period. Another significant fact is the absence of glazed beakers and lids, and of any more intricate decoration with incised designs or finely modelled applied strips. One of the Huy-type glazed pitchers is a large example with a thickened, everted and pointed rim (Fig. 6, No. 1). Its rather coarse potting and decoration with reticular thumbbed strips

are reminiscent of a Huy-type pitcher from Maastricht, dated to the later 9th or earlier 10th century (Dijkman 1993, 223; fig. 7). The glaze of the stratified period IV vessel is very clean and glossy and slightly iridescent, unlike early glaze in the period IIIb assemblage. One example, perhaps from the medium-sized type of pitcher (Fig. 6, No. 2), has a tapering rim, which is typical of period IV. The lead glaze also covers the fractured edge, which makes it a probable waster, suggesting perhaps that the kiln site was not far away. Unglazed wares in this group include a range of globular pitchers (Fig. 6, No. 3) and cooking pots (Fig. 6, No. 4) with simple everted, parallel-sided rims. The cut, inserted spouts of the pitchers and the finger-applied strokes of red painting, are well within the late Carolingian tradition; a wide-mouthed bottle (Fig. 6, No. 5) has been decorated in a similar way. A typical and frequent feature is decoration with broad zones of relatively large diamond rouletting, which often covers the side of the rims as well (Fig. 6, No. 6); it is sometimes combined with red painting (Fig. 6, No. 7) or applied strips. Square rouletting and a coarse variant of the M69 strip also occur. The standard of potting, compared with period IIIb, is slightly inferior, with frequent girth grooves, rather thick walls and an often careless application of handles and spouts. Fabric-types HUYT 9a and 9d, and any kind of refined surface treatment, are no longer represented; the sandy fabric HUYT 10 is common. Fabrics HUYT 9b and 9c tend to be rather low fired. The predominant rim type is an everted, thickened, internally hollowed, tapering rim with pointed edge. This rim type was also employed for a newly developed line of globular, double-handled spouted pitchers, which tend to have a rather flat convex base, a thin tubular spout often with a rounded tip, and hollowed strap handles. Rounded or elongated raised bosses, pushed out from the inside, are typical of this group. Handles, spouts and bosses show distinctive vertical burnished streaks, which were probably made with a spatula (Fig. 6, No. 8). This form also occurs without a spout. The fabric is usually the fairly low-fired and porous HUYT 9b, a variant which occurred only rarely in the period IIIb group. A perhaps slightly earlier domestic assemblage was excavated at the Huy Batta site (Lauwerijs 1975–76, 115 *passim*; pls. 3–4; fig. 1, nos. 1–9; fig. 2, nos. 1–16). This distinctive type of unglazed pitcher and jar is well-known from the find of acoustic pots in the floor of the second abbatial church at St Truiden (van de Konijnenburg 1984, 37–8; figs. 13–14); the first church destroyed by Vikings was replaced by a large-scale building, consecrated in 945. The *terminus ante quem* of 945 for the installation of the pots, and the fact that they appear to have been used, hint at their production earlier than 945, perhaps as early as the

first third of the 10th century. Residual sherds of the same type found in the St Servaas church at Maastricht were assigned a general 10th- or earlier 11th-century, "pre-Andenne" date (Panhuysen 1982).

It is uncertain whether this distinctive form in fabric HUYT 9b should be exclusively attributed to a town-based ceramic production in Huy. Several isolated finds of the type, in a visually identical fabric, from Andenelle, (e.g. site A4 Borremans and Warginaire 1966, pl. 8; fig. 32, no. 1; site A48 *ibid.*, fig. 29), might indicate an initial production phase nearer the clay sources, perhaps as early as the first half of the 10th century; the finds from St Truiden, Maastricht and Andenelle hint at production of unglazed ware. Even the production in Andenelle of a late type of red-painted ware cannot be excluded, considering the stray find of a red-painted sherd with applied strip (Borremans and Lassance 1956, 53-4; fig. 6c).

An equally limited repertoire of unglazed globular pitchers and cooking pots can be seen in the production of the earliest kilns, 3 and 4, at the Wierde site (Lauwerijs and Petit 1967, 16; pl. I). The composition of the period IV assemblage suggests that a considerable change occurred in local pottery consumption, and probably also in local or regional production between the later 9th and the first third of the 10th century. Although the stratigraphy of period IV, together with the generally scarce dating evidence for 10th-century ceramic contexts in Huy and elsewhere do not allow a more detailed statement, it is reasonable to assume a degree of disturbance and recession in the formerly highly developed Middle Meuse ceramic industry, c. 900, and a reduction of its repertoire to mainly utilitarian household vessels.

The distribution of period IV Huy-type wares appears to be merely regional and in sharp contrast to the previous phase, perhaps as the result of a general economic decline and the weakening of the local industrial infrastructure and its trading network, caused by the Viking disruption of the later 9th century. Some of the remaining potters may have moved closer to the clay sources at Andenelle and Wierde in order to develop an inexpensive, mass-produced, unglazed ware, yet still in the late Carolingian tradition; others might have stayed at Huy and continued, possibly without any hiatus, the more specialised production of glazed ware (e.g. Fig. 6, No. 2) which probably depended on a constant supply of lead-protioxide.

There are no contemporary imports in this context group. An associated hoard of half-made copper-alloy objects, such as cruciform and annular *fibulae* and a key, all of Carolingian types, suggests deposition no later than the mid 10th century, but probably earlier in the century.

Period V

The assemblage of 1121 well-preserved sherds, from the massive period V levelling layer that seals the period IV cobbled street with its aligning ditches, shows a further development, especially of the type of tapering rim to more elongated, pointed and externally rounded profiles. These are often internally hollowed, with a pointed inner edge (Fig. 6, Nos. 9; 12-4). Sherds with overall glaze, 6% of all Huy-type ware (Fig. 6, Nos. 9-11), may all belong to the type of ovoid spouted pitcher which was traditionally decorated with thumbled applied strips (Fig. 6, No. 10) and broad zones of diamond rouletting (Fig. 6, No. 11). Unglazed ware, of which 5% has random glaze spots, was predominantly manufactured in fabrics HUYT 9b and 9e. Rouletted decoration of the rim is still featured (Fig. 6, No. 12), but red painting no longer occurs. Given the general scarcity of contemporary finds contexts, the chronological framework and distribution pattern of period V Middle Meuse ceramics can be only vaguely described. An ovoid glazed pitcher of Huy-type, associated with unglazed ware, was excavated in Zoutleeuw (Verbeeck 1993, 50-1; fig. 28, nos. 1-4). The rim-type and decoration of the pitcher with broad bands of diamond rouletting correspond well with finds in the period V layer of the Ruelle des Coucoucs sequence; the 12th-13th century date proposed for the finds from Zoutleeuw is certainly too late. The incidence of comparable Huy-type, or "proto-Andenne"-type imports with "sickle-shaped" rims at Dommelen in the Kempen region points to a general 10th-century date (Verhoeven 1992, 78-9; fig. 2, nos. 9-11). At the castle site in Enname some glazed pitcher sherds decorated with applied strips and zones of diamond rouletting were found in layers which possibly date to the last quarter of the 10th century (Koen de Groote pers.comm.). A few sherds of an earlier variant of Pingsdorf-type ware in the sequence also indicate a general 10th-century date for deposition.

Period VI a/b

The second massive levelling layer of Ruelle des Coucoucs (phase VIa) produced a small assemblage of 368 sherds, which are partially abraded and clearly residual. The proportion of 21% glazed ware sherds, and a further 7% unglazed ware with glaze spots, is quite remarkable. The gradual development of the rim profiles has now resulted in more vertically elongated rims (Fig. 6, Nos. 16-8), which are likely precursors of the classic high-collared *bandeau* rims of 11th and 12th century Middle Meuse ceramics. An unusual type of glazed pitcher (Fig. 6, No. 16) has a broad rim-seated handle; handle and shoulder are decorated with coarsely-thumbled M69 applied strips; it is warped

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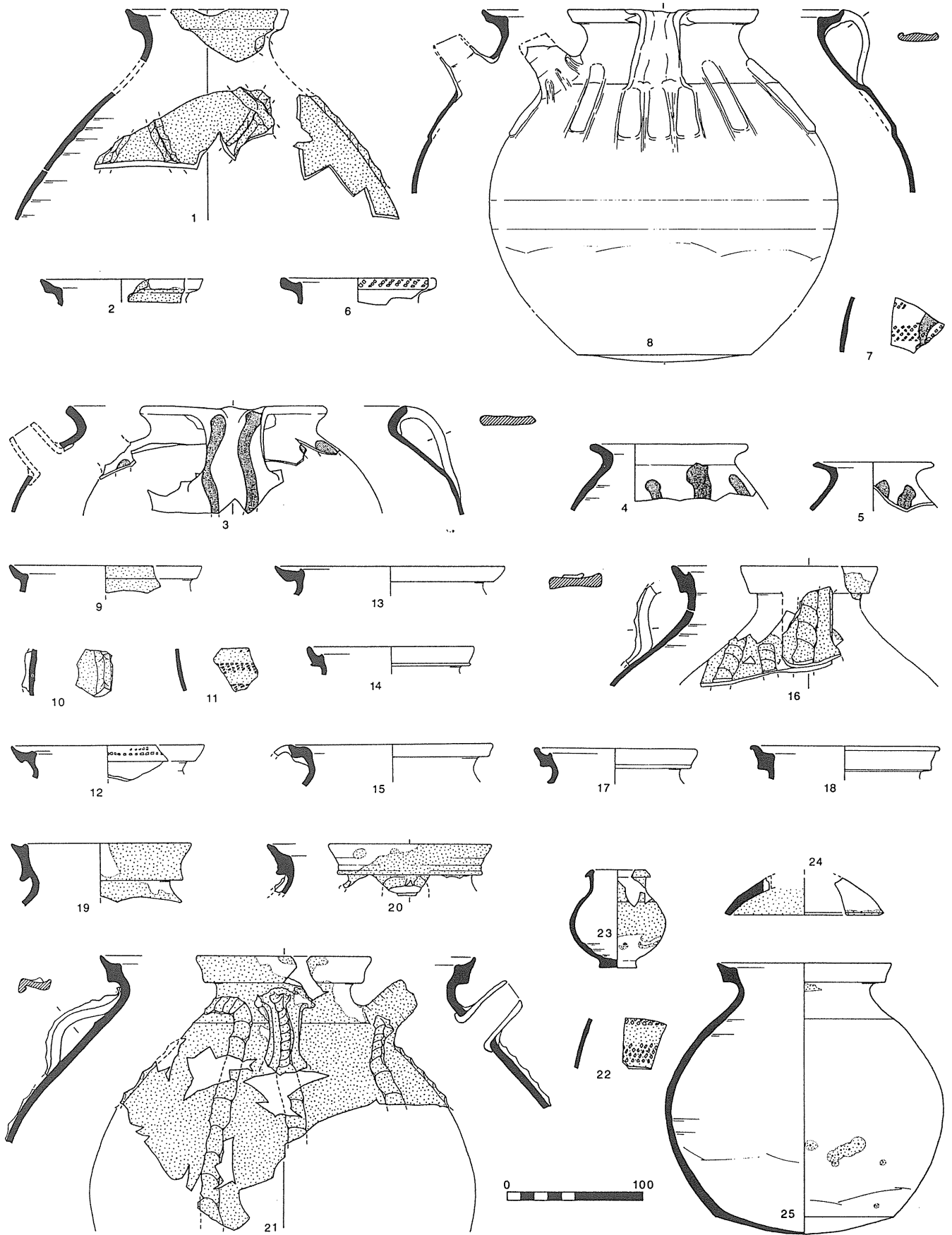


Fig. 6. Ruelle des Coucous: Huy-type wares. Nos. 1-8, period IV; Nos. 9-15, period V; Nos. 16-18, period VIa/b; Nos. 19-25, period VIIa/b. Scale 1:4.

and may be a second or waster. Glazed ?pitchers with zones of diamond rouletting still occur. The most common fabric types for unglazed cooking pots and pitchers are again HUYT 9b (Fig. 6, No. 18) and HUYT 9e (Fig. 6, No. 17). In period VIa, Middle Meuse ceramics are associated with imported, handmade cooking pots of Schinveld period B-type ware from the South Limburg area (Bruijn 1960–61, 468–73; figs. 5–6). The proposed date for this initial phase of the Schinveld industry before *c.*1025 (*ibid.*, 506) seems to be supported by the evidence from Huy. The period VIb destruction layer of *c.*1053 (not included here), which was identified in a zone adjacent to Ruelle des Coucous, already contained more developed high-collared rim types. It is suggested that the period VIa layer was deposited during the first half of the 11th century.

Period VIIa/b

The rich period VII assemblage, of 4288 well-preserved sherds with a minor proportion of residual material, was recovered from the foundation trenches of large-scale buildings aligning the street (phase a), and a contemporary levelling layer on the street (phase b); these buildings can be associated with a documented reconstruction programme of the period *c.* 1053–1066/70, after destruction by fire. Twenty-four percent of Huy-type ware sherds are glazed overall, while 6% of the remaining unglazed wares bear accidental glaze spots; a total of 28% Huy-type ware sherds has lead-glaze. The period VII assemblage consists of exactly the type of pottery which could be expected from a Middle Meuse production phase around the mid 11th century. The type of globular, spouted pitcher with overall glaze, with various types of high-collared rims, and shoulder-set or rim-seated handles (Fig. 6, Nos. 19–21) is well known from the suggested initial phase 1a of the industry at Andenelle, represented by site A61, dated shortly before the mid 11th century (Borremans and Lassance 1987, 53–105); the rim of an unglazed cooking pot with random glaze spots illustrated here (Fig. 6, No. 25) is also known from that site. Although it is very unlikely that the A61 assemblage marks the actual start of pottery production at Andenelle, it may be taken to represent an early phase of glazed ware production in that industry, until there is more conclusive evidence for glazed ware from presumably earlier production contexts, such as A4 and A48 (see above, p. 53). The traditional decorative style of the period VII pitchers is zones of square and diamond rouletting (Fig. 6, No. 22) and vertical or curvilinear applied, thumbed strips with a triangular or rectangular section. An ovoid example with narrow neck, shoulder-set handles, a tubular inserted spout

with rounded tip, and a combination of two different types of strips (Fig. 6, No. 21), perfectly demonstrates the continuing, originally late Carolingian tradition in the production of Middle Meuse valley glazed ware; this conservative style and form obviously continued until the mid 11th century, modified only by a gradual development of the rim profiles. The possible survival or re-introduction of small overall-glazed beakers (Fig. 6, No. 23), and — now pierced — ceramic lids (Fig. 6, No. 24) hints again at local demand for sets of luxury table ware, and their local or regional supply.

The chronological framework and distribution pattern of period VII Middle Meuse glazed ware has usually been surveyed in the context of the Andenne industry and will be discussed in a forthcoming study by Borremans. Here, it need only be mentioned that the distribution of late 10th- to mid 11th-century glazed ware from the Middle Meuse valley seems to reflect roughly the same distribution pattern as its late Carolingian Huy-type precursors; namely, on the Continent along major rivers and in coastal regions of the Low Countries, and in southern and eastern parts of England connected with the documented English trade of Meuse valley merchants, for example from Huy and Liège (above). Previously published finds, from Neuss on the Rhine (Hupka 1988, 89; pl. 6), Deventer (Dorgelo 1956, 74–5; fig. 28, no. 10), Exeter (Verhaeghe and Janssen 1984, 18–20) and London (Dowgate, see Dunning 1959, 73–7; fig. 40, nos. 26–7, and other findspots see Vince 1985, 39) as well as the group of pitchers and beakers found at Staveren in Frisia (Clarke 1975, 178–9; figs. 3–4), may be attributed to this group of high-medieval Meuse valley imports. Distribution also to southern Belgium is suggested by the find at the fortified site of Sugny of a presumed 11th-century pitcher decorated with M69 strips (Matthys 1985, 81–8; fig. 6).

That such highly decorated overall glazed ware was produced not only by the Andenne industry but also during the course of the 11th century in Huy, is proved by the waster assemblage from Rue Godelet (Bit *et al.* 1985–86). The similarity of contemporary 11th century wasters from Huy and Andenne points to the close link between these neighbouring industries, which probably originated in the emigration of potters from Huy and the establishment of a rural daughter industry during the earlier 10th century.

The period VII assemblage includes imports of South Limburg-type ware of periods Schinveld B and A, and a few developed Pingsdorf-type ware sherds, for which a mid 11th-century date is probable.

CONCLUSION

The accumulating evidence gained from numerous production and consumer sites in Huy hints at continuity of local pottery production as part of a proto-urban environment. A coherent and gradually developing cluster of Huy-type fabrics and the wide range of associated forms and decorative patterns are in full accordance with general northwest European ceramic development, intermediate between Rhenish and more western Frankish styles. Essentially, Merovingian Huy-type wares are just another “part of the whole *continuum* of good-quality industrial pottery in Merovingian times between the Loire and the Rhine” (Hurst 1976, 312). In the earlier and high Carolingian phases of the industry, the ever-increasing preference for fine reduced wares links it more with northern French regions and the Mayen industry, than with the Rhenish Vorgebirge and its limited range of utilitarian, mass-produced, oxidised wares. The style and repertoire of an early type of red-painted white ware from Mayen seem to have influenced the development of fine white ware at Huy. There is sufficient evidence that the adoption of the white ware vogue, here and in more western regions, began before the mid 9th century, resulting in the permanent breakaway of the Middle Meuse industry from its long late Roman and Merovingian tradition. This change and the rapidly established concentration on the production of fine red-painted white ware in an inter-regional style, and especially the introduction in the second half of the 9th century of sets of glazed luxury table ware, surely established the status of this industry in the network of north-west European commerce and trade. This pattern is reflected not least by the wide distribution of early glazed Huy-type ware in many emporial, ecclesiastical and aristocratic sites along major rivers on the Continent and in coastal regions around the North Sea, probably as a result of trade by Frankish and/or Frisian merchants. The industry which invented Huy-type early glazed ware is presumed to have been centred in the proto-urban settlement of Huy, itself a political, clerical, industrial and emporial site of considerable importance, and a major consumer of fine pottery, not only in the later 9th century. The sudden emergence of superb lead-glazed pottery in the Huy-type industry need not be seen as the result of foreign influx, but as a joint venture by the local town-based cottage industries active in pottery production and metal-working. It could simply be waste recycling by experienced potters, employing lead-protioxide, a well-known by-product of cupellation, for the decoration of newly-developed, suitable, oxidised wares — certainly a big step in post-Roman ceramic development, but perhaps only a small step in the *vicus*.

Did this highly advanced and successful industry, supported by a lucrative local and inter-regional market, temporarily decline or even collapse in the late 9th century, following Viking disturbance of the general economic situation or local destruction? Is the establishment of a possible rural daughter industry at Andenelle, perhaps as early as the first half of the 10th century, directly linked with disruption at Huy, or should it rather be considered part of the regionalisation and specialisation of pottery production on an industrial scale, as can generally be observed in the emergent high-medieval economy? There is still insufficient evidence.

It would be premature to conclude that the continentally-influenced ceramic industry which was introduced in late 9th-century Stamford (possibly by the Danes) was the sole achievement of a displaced immigrant potter from Huy, although the overall resemblance to the “pre-Viking” technology and production range of Huy-type wares is indeed striking.

Nevertheless, a dramatic slump in local consumption and the possible production of glazed and other fine wares in Huy, and the total breakdown of the distribution network, can be assumed for a crucial phase around the very late 9th to early 10th century. The steadily increasing proportion of traditional glazed ware in later 10th- to mid 11th-century groups in the Ruelle des Coucous sequence, points to a gradual recovery of the socio-economic potential of Huy, as indicated by the local demand for luxury table ware; it further hints at growth of the local or regional ceramic industry. The long-distance trade connections along which late Carolingian Huy-type wares had been distributed were slowly re-established in the course of the later 10th and early 11th centuries. This finally resulted in a comparably wide distribution of Middle Meuse glazed ware in the later 11th and 12th centuries, which was certainly linked with the mass-production of such pottery by the Andenne industry, supported by minor industries operated at Wierde, Mozet and, perhaps, still at Huy.

More work needs still to be done to provide conclusive evidence for the exact provenance and chronology, status, distribution and influence of Middle Meuse valley, Huy-type wares, building on the information presented here.

Footnotes

1. During the 1995 MPRG conference, a selection of the Ruelle des Coucous material was displayed at the Rheinisches Landesmuseum, Bonn. This paper is derived from the site report and comprehensive finds catalogue (Giertz in prep.)
2. High medieval is used throughout in the German fashion starting in the 11th century, rather than the British usage to include the 13th to 15th centuries. (eds.)

3. The dating of this kiln is not consistent. In a general survey of the Middle Meuse valley production sites, it was described as a Carolingian kiln which had produced pottery of a late Merovingian type (Borremans and Willems 1993). In the title of the site report it is described as a late Merovingian kiln, although the text states that it is archaeomagnetically dated to *c.* 880–900 and is further connected with a ¹⁴C date of *c.* 780–980 (*ibid.* 65), and was likely therefore to have operated between *c.* 850–900 (*ibid.*, 69). The pottery assemblage described with this kiln appears to be from its backfill and may well be re-deposited material, although its exact provenance and relationship with the kiln are not stated. The wares found are somewhat heterogeneous and comprise a larger quantity of rather coarsely-potted fine burnished wares of late Merovingian appearance and a smaller proportion of sandy reduced wares, which are generally assigned to the Carolingian period and likely date to the first half of the 9th century. It is this author's view that the archaeomagnetically dated late Carolingian kiln and the associated pottery assemblage are unlikely to be contemporary.
4. Ipswich site IAS 6202, context 0401. A shoulder sherd, probably from a biconical pot, with single-stamped decoration similar to Willems 1973, fig. 7, no.10; the fabric is a slightly burnished variant of HUYT 2a (Keith Wade pers. comm.).
5. Two other period IIIb contexts on the Place St Severin site, which contain similarly homogeneous ceramic assemblages, indicate a possible disturbance of the settlement: a pit with scattered human bones (G 90/2–2) in the settlement area south, and a destroyed and rapidly-filled well (G 90/3–8) on the foreshore immediately north of Ruelle des Coucous.
6. A term coined by Panhuysen at the 1984 MPRG conference in Bergen op Zoom, mainly referring to pottery from presumed 10th-century sites in Maastricht (Panhuysen 1982) and Sint Truiden (van de Konijnenburg 1984).
7. A massive layer of re-deposited soil and artefacts (recently recorded by the author at 2 Rue l'Apleit/ 17 Rue des Augustins) which is probably connected with the construction of the medieval ramparts, contained an assemblage of residual early glazed ware sherds; these had technical and decorative features indicating a late 9th-century date. The *c.*30 sherds show dull, underfired bubbly glaze, or burnt glaze on a fused fabric. On several sherds the glaze has run across the fractured edge, strongly suggesting that these sherds represent seconds or wasters of late Carolingian Huy-type early glazed ware, possibly produced at a kiln site closeby.
8. The programme, by H. Mommsen and A. Hein at the Institut für Strahlen- und Kernphysik, University of Bonn, includes samples from kiln sites at Huy, Andenelle, Wierde and Maastricht, and domestic finds from the Ruelle des Coucous sequence.
9. Some rare stray finds of apparently Carolingian wares, with a fine-sandy fabric and a regional or possibly local provenance, together with presumed early medieval imports, have been collected by the author during fieldwalking on the Wierde site. Although the mixture of heterogeneous early medieval wares hints at a domestic site, the possibility of a contemporary pottery industry on that site can not be excluded, notably with regard to the still open question of pottery supply to the nearby proto-urban settlement of Namur, where as yet no early medieval kiln-site has been found.
10. For another Walberberg-type import in Huy see Dandoy and Willems (1995, 14, fig. 3). The evidence of contact with the early-medieval production centre at Walberberg, Kitzburgerstrasse is interesting, because it appears to be the only one of the numerous Vorgebirge sites which had as long and continuous a sequence of production as Mayen and Huy. Intensive fieldwalking of the site by the author since 1973 has yielded a substantial quantity and large variety of late Roman and classic Merovingian pottery in the typical local fabric rich in quartz and haematite, including red-slipped and black burnished wares. It is suggested that the well-known late Merovingian and Carolingian repertoire of Walberberg was gradually developed from late Roman and early Merovingian precursors produced on the site (Giertz in prep.).
11. A presumed pitcher sherd from the Em Schwatte Päd site (1973) at Büchel 50 was found in the lower backfill of a sunken structure. It was associated with a well-preserved assemblage of red-painted pitchers in fine Badorf-type and sandy Pingsdorf-type fabrics, Reliefband amphorae, Duisburg-type greyware and a possible local coarseware. The context is located in the supposed *portus* area, and can be dated to *c.* 900 (Giertz in prep.).
12. The smooth, slurred or "soapy" surface texture is a characteristic of Dorestad fabrics W6 and 9 as well as W12, 16 and 17 (Van Es and Verwers 1980); the common provenance of this cluster from Mayen has recently been indicated by NAA (Bardet 1995, 222–6). The production of Merovingian and later red-painted costrels at Mayen is possible in view of finds in the Mayen region (Ament 1964), and also in local workshops (Stampfuss 1940, 290–1; pl. 97,1–2). The Middle Meuse industry which invented red-painted and early glazed white wares around the mid 9th century probably adopted several technical, morphological and decorative features from earlier Mayen-type products, such as techniques for surface treatment, the modelling of handles and spouts, the globular forms with convex bases, pronounced shoulders and everted rims, and the style of red-painting, applied strips and incised decoration. The production of possible Huy-type costrels may be considered in this context.
13. Kilmurry (1980, 69) has mentioned the chemical similarity of high medieval lead-glazes from Andenne and Stamford, which both differ from northern French glazes. The close relationship of Stamford and Andenne glazes has also been emphasised by Verhaeghe (1968, 203), indicating that Stamford glaze may well have been an immediate precursor of Andenne glaze, while Dunning, considering Braat's early glazed finds from Zeeland, had already favoured the idea of derivation of glaze technology in England from Low Countries glazed ware, probably initiated by immigrant potters in the second half of the 9th century (Dunning 1956, 231).

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Résumé

La contribution concerne en premier lieu une séquence stratifiée de céramiques domestiques mise au jour à la place Saint-Séverin à Huy, Belgique. L'examen macroscopique d'une sélection d'ensembles allant du VIII^e au XI^e siècle a permis l'identification d'un groupe dominant de céramiques, qui présentent des caractéristiques diagnostiques communes avec la poterie découverte en contexte de production à Huy. Ce groupe de produits présumés d'origine locale est désigné par le vocable de céramiques du type de Huy et les objets ont été classés en fonction des principaux types techniques représentés. L'article indique le répertoire étendu des céramiques carolingiennes du type de Huy tout en suggérant leur développement à partir de précurseurs autochtones. La distribution de ces céramiques du type de Huy et leurs influences possibles sur des industries associées dans la zone centrale de la vallée de la Meuse et peut-être aussi sur la production à Stamford en Angleterre font l'objet de quelques commentaires qui se réfèrent plus particulièrement aux céramiques carolingiennes tardives, partiellement glaçurées et/ou peintes.

Zusammenfassung

Dieser Beitrag befasst sich mit einer stratifizierten Sequenz von Keramik aus Siedlungskontext, die von einer Sondierung auf dem Place St Severin in Huy, Belgien, stammt. Die makroskopische Untersuchung ausgewählter Fundkomplexe des 8.-11. Jahrhunderts ermöglichte die Identifizierung einer weit vorherrschenden Gruppe von Waren, die in ihren massgeblichen Eigenschaften mit Keramik aus gesichertem Produktionskontext in Huy übereinstimmt. Diese eng verwandten, vermutlich lokalen Waren werden hier eponym als Waren vom Typ Huy bezeichnet und im folgenden klassifiziert anhand der wichtigsten Wareneigenschaften. Das weite Produktionspektrum insbesondere der karolingischen Waren vom Typ Huy wird angedeutet, während auf eine schrittweise Entwicklung von lokalen Vorläufern hingewiesen wird. Die Verbreitung der Waren vom Typ Huy und ihr möglicher Einfluss auf verwandte Industrien im Gebiet Mittlere Maas, und vielleicht in Stamford, Lincolnshire, werden erörtert, unter besonderer Berücksichtigung von spätkarolingischen rotbemalten sowie frühen glasierten Waren.

Appendix 1. Archaeological development at Ruelle des Coucous, street area

Period	Date	Description	Characteristics
I	? pre 8th century	Undeveloped foreshore area of Meuse and Hoyoux.	Homogeneous fluvial loams with occasional disposal of household waste.
IIa	8th century	Periphery of settlement with industrial activities.	Rise of ground level with dirty loamy soil. Intensive rubbish disposal of antler-working and iron-working industries, and of domestic refuse, suggesting occupation nearby.
IIb	Later 8th-1st half 9th century	Continuing activities of cottage industries further inland.	Deposition of dark, sandy loam mixed with industrial and domestic refuse, resulting in a dam-like path with compressed surface.
IIIa	Mid-later 9th century	Inundation and second street layer. Foreshore area still undeveloped.	Lower ground level next to path towards settlement slightly risen by natural fluvial deposit of clean loam and travertine covered with second street layer of dirty loam and industrial and domestic rubbish, as before.
IIIb	Last quarter of 9th century	Possibly destruction of adjoining settlement by documented Viking raids <i>c.</i> 879–90 and subsequent clearing works.	Thick, homogeneous black layer of soft charcoal-laden deposit spreading over occupation area, thinning out towards street. Absence of “industrial artefacts”, relatively few animal bones. Large amount of freshly broken pottery mixed with residual sherds from damaged surface of Period IIIa layer. Domestic refuse of intensive occupation, or spread material from destruction.
IIIc	Late 9th-early 10th century	Re-occupation of settlement area, extension of street.	Cobbled street rammed into black layer, dam-like. Shallow ditches aligning the street are cut into black layer of Period IIIb.
IV	First half of 10th century	Settlement again established.	Street ditches perhaps cleaned before finally back-filled with organic material, food-waste and domestic pottery. Small hoard of semi-finished copper-alloy objects indicates late Carolingian metal-working activities.
V	Mid-late 10th century	Modifications to street.	Rise of street level and further extension of street area with heavy layer of clean gravel and stones, extending over former street and back-filled ditches. Slabs of schist laid on top, covered by thin, hard layer of dirt.
VIa	Late 10th-first half of 11th century.	First tenements in the former foreshore area, rising of street level.	Massive layer of fine, clean sand and stones again raises level of street. Towards the Meuse timber buildings on stone foundations at ground level. Burnt remains of cobbled street surface.
VIb	1053	Ravaging of Huy by the sons of the count of Flanders. Destruction of buildings by fire, clearing works.	Historical reference can be linked with a heavy layer of rubble and charcoal overlying and levelling the Period VIa structures towards the Meuse. Burnt surface of Period VIa street probably attributable to this phase.
VIIa	Mid-third quarter of 11th century.	Rebuilding of destroyed structures on a large scale.	Complete replacement of destroyed former structures with large massive stone buildings aligning the street, probably following old tenements. Deep foundation trenches cut older features, backfilled with re-deposited material and household waste.
VIIb	1066	Charter of liberty.	Alley again raised and levelled with clean gravel, top of street truncated.

Appendix 2. Classification of Huy-type wares (HUYT) from Ruelle des Coucoucs sequence

Code	Ware	Fabric description	Colour (Munsell)	General date
<i>HUYT 1 Coarse gritty oxidised wares:</i>				
HUYT 1a	Coarse gritty buff ware	Tempered with coarse sand and grits up to 3mm diam., sandstone and schist prevailing over ill-sorted monocristalline grains, sparsely distributed, slightly prominent. Porous matrix.	Throughout very pale brown 10YR 8/3-7/4	c. 6th-8th century
HUYT 1b	Coarse gritty red ware	As 1a, but frequently very sparsely tempered.	Throughout yellowish red 5YR 5/6-4/6	c. later 8th/ first half 9th century
<i>HUYT 2 Coarse gritty reduced wares:</i>				
HUYT 2a	Coarse gritty black ware	Similar to HUYT 1a, but often with lower density of tempering and thinner body. Surface often wiped, sometimes mottled blue-grey.	Surfaces dark grey 7.5YR N4/ to very dark grey 7.5YR N3/, core white 5YR 8/1 to light grey 5YR 7/1	c. 6th-8th century
HUYT 2b	Coarse gritty grey ware	Tempered with irregular coarse grits up to 6 mm across, thick body.	Throughout grey 10YR 5/1	c. 6th-8th century
<i>HUYT 3 Sandy red ware</i>				
		Densely tempered with rounded monocristalline sand of c. 0.1-0.4 mm grain size. Hard-fired, dense matrix. Possible precursor of group HUYT 4.	Throughout light red 2.5YR 6/8 to reddish yellow 5YR 6/8	c. 7th-8th century
<i>HUYT 4 Sandy reduced wares:</i>				
HUYT 4a	Sandy black ware	Tempering similar to HUYT 3, sometimes grain size not exceeding 0.2mm diam.	Surfaces dark grey 2.5Y N4/ to very dark grey 2.5Y N3/, core white 10YR 8/1	later 8th/ first half 9th century
HUYT 4b	Sandy blue-grey ware	As 4a, frequently with "metallic" surface and very dense matrix.	Surfaces mottled light grey 2.5Y N7/ with dark grey 2.5Y N4/, core white 10YR 8/1	later 8th/ first half 9th century
HUYT 4c	Burnished sandy black ware	As 4a, but wiped and partially burnished surface.	Like 4a	like 4a
HUYT 4d	Fine-sandy black ware	As 4a, very dense tempering with fine sand, grain sizes not exceeding 0.2mm.	Like 4a but usually brownish cores	like 4a
<i>HUYT 5 Fine red burnished ware</i>				
		Untempered, slightly porous matrix, finely burnished outer surface.	Throughout pink 7.5YR 7/4 to light brown 7.5YR 6/4 or reddish yellow 7.5YR 7/6-6/6	c. 6th-8th century
<i>HUYT 6 Fine black burnished ware</i>				
		Temper and surface treatment as HUYT 5. Sometimes "metallic" and usually very thin black coating of outer and inner surfaces.	Surfaces grey 2.5Y N5/ or very dark grey 2.5Y N3/ to black 2.5Y N2/. Core white 10YR 8/1, or light grey 10YR 7/2 to light brownish grey 10YR 6/2	c. 6th- mid-9th century
<i>HUYT 7 Red-slipped ware</i>				
		Usually untempered like HUYT 5, but sometimes silty fabric. Finely smoothed surfaces, covered with red slip or paint.	Throughout white 10YR 8/2 to light red 2.5YR 6/6. Slip: light red 2.5YR 6/6 to red 2.5YR 5/8	c. 6th-first half 9th century
<i>HUYT 8 Stoneware-like ware</i>				
		Fused or nearly fused with burnt or cracked inclusions. The majority most likely over-fired coarse wares of HUYT 1 and 2, probably all wasters from kiln-sites nearby.	Often greyish-brown 2.5Y 5/2 or reddish brown 2.5YR 5/4	c. 6th-9th centuries?
<i>HUYT 9 Finelfine-sandy oxidised wares:</i>				
HUYT 9a	Fine burnished white ware	Untempered, very fine texture resembling pipe-clay. Soapy, finely smoothed or wiped surface, often finely burnished on lower part of the body. Often red-painted.	Throughout brilliant chalk-white to white 5YR 8/1. Rarely very pale brown 10YR 7/4 or pink 5YR 7/4	9th century, rarely before
HUYT 9b	Fine buff-white ware	Untempered, but often silty fabric. Dull, slightly porous matrix, wiped surface.	Throughout very pale brown 10YR 8/3 to 10YR 7/3-4, or light brown 7.5YR 6/6	After late 9th century -?

MIDDLE MEUSE VALLEY CERAMICS OF HUY-TYPE: A PRELIMINARY ANALYSIS

Code	Ware	Fabric description	Colour (Munsell)	General date
HUYT 9c	Fine-sandy whitish ware	Fine, dense sand-tempering with well-sorted grains of c.0.05–0.2 mm diam., if hard-fired slightly protruding. Cores often pinkish. Frequently red-painted or lead-glazed.	Throughout pinkish white 5YR 8/2 or 7.5YR 8/2 to pinkish grey 7.5YR 7/2, or white 10YR 8/1 to very pale brown 10YR 8/4–10YR 7/3-4	9th century to?
HUYT 9d	Fine-sandy pink ware	As 9c, but often very dense tempering. Frequently red-painted or lead-glazed.	Pink 5YR 7/3 to light reddish brown 2.5YR 6/4	9th century
HUYT 9e	Near-stoneware	Nearly fused or fused glassy fabric with no visible temper. High-fired variant of HUYT 9 class.	Greyish brown 2.5YR 5/2 to grey 7.5YR n5/, or weak red 2.5YR 5/2 to reddish brown 2.5YR 5/4	9th century to?
<i>HUYT 10</i>	<i>Sandy oxidised ware</i>	Similar to HUYT 9c, but more coarsely tempered with ill-sorted whiter and/or iron-coated quartz sand up to 1 mm grain size. Often combined with rather careless potting.	As 9c.	Later 9th–first half 10th century

Appendix 3. Quantification of pottery from the Ruelle des Coucoux sequence of layers by sherd count

Period	Huy-type fabrics										Resid. Roman	Imported fabrics	Total no. of sherds		
	1	2	3	4	5	6	7	8	9	10					
I	1	5	4		7	7		1			4		29		
IIa	329	105	69	38	84	25	2	6		2	30	Mayen A-type coarse ware Mayen F-type near-stoneware Walberberg-type near-stoneware Walberberg-type sandy oxidised ware	2 5 1 3	701	
IIb	54	20	9	143	15	17	11	6		104	3	Mayen F-type near-stoneware Walberberg-type sandy oxidised ware	13 3	408	
III	42	12	4	66	20	3	4	1		8044	45	7	Mayen A-type coarse ware Mayen F-type near-stoneware Walberberg-type sandy oxidised ware Badorf-type ware Shelly ware	1 15 7 1 7	8278
IV			2	1	3					3560	84		Mayen F-type near-stoneware	1	3651
V										1107	12		Pingsdorf-type ware	2	1121
VI										347	1	1	South-Limburg-type ware	19	368
VII	3	3		1	3	2				4234	4	2	Pingsdorf-type ware South-Limburg-type ware	4 32	4288
Total										(Huy-type)	18681	47		116 18844	