

The habits of war: Early modern ceramics in Flanders

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The habits of war

Early modern ceramics in Flanders

Maxime Poulain

Proefschrift voorgelegd tot het behalen van
de graad van Doctor in de Archeologie



Maxime Poulain



voor Charles Rivière

Promotor Prof. dr. Wim De Clercq
Vakgroep Archeologie
Copromotor Prof. dr. Peter Vandenabeele
Vakgroep Archeologie

Decaan Prof. dr. Marc Boone
Rector Prof. dr. Anne De Paepe

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Preface

For this thesis, I was granted a four-year strategic basic research scholarship in 2013 (project number 121582), by the former Agency for Innovation by Science and Technology in Flanders (IWT), now Flanders Innovation & Entrepreneurship (VLAIO). Research was conducted at Ghent University, with prof. dr. Wim De Clercq as promotor, and prof. dr. Peter Vandenabeele as copromotor, both of Ghent University's Department of Archaeology.

Structure of the thesis

This dissertation comprises both published and non-published data. The following articles have been incorporated into the thesis:

- (1) Poulain M. 2013. Notes on the quantification of post-medieval pottery in the Low Countries, *Post-Medieval Archaeology* 47:1, 106-118.
- (2) Poulain M., De Groote, K. and De Clercq W. 2013. Pots from troublesome times: Ceramics used in Middelburg-in-Flanders, Belgium, during the Eighty Years' War, *Medieval Ceramics* 34, 1-18.
- (3) Poulain M. and De Clercq W. 2015a. Exploring an archaeology of the Dutch War of Independence in Flanders (Belgium), *International Journal of Historical Archaeology* 19:3, 623-646.
- (4) Poulain M. and De Clercq W. 2015b. Het arme-klarenklooster te Middelburg-in-Vlaanderen (1515-1604): een archeologisch-topografische analyse, in Verstraete E. (ed.), *Monasterium Clarissarum de Middelburg in Flandria (1515-1604) en de twee kloosters die er uit gesproten zijn te Ieper in 1597 en te Luik in 1604*, Maldegem: Gemeentelijke Cultuurraad, 64-97.
- (5) Poulain M., Baeten, J., De Clercq W. and De Vos, D. 2016, Dietary practices at the castle of Middelburg, Belgium: Organic residue analysis of 16th- to 17th-century ceramics, *Journal of Archaeological Science* 67, 32-42.

- (6) Poulain M., Pieters M. and De Clercq W. 2016. Everyday life during the Siege of Ostend (1601-1604): Ceramics at the Spanish Saint-Isabella fort, *Medieval and Modern Matters* 6, forthcoming.
- (7) Poulain M., Van Vaerenbergh J. and De Clercq W. 2016. A Portuguese lifestyle in the Flemish countryside: Ceramics of the Ximenez family (c. 1595-1700), submitted with *Post-Medieval Archaeology*.
- (8) Poulain M. and De Clercq W. 2016. Mediterranean pottery at the castle of Middelburg-in-Flanders, submitted with *Archeologia Postmedievale*.

However, incorporation often entailed alteration. Articles were supplemented with new data or adapted according to new insights. Moreover, when required by the structure of this thesis, publications have been divided into several parts which were allocated under different chapters. When certain (sub)chapters contain published material, this will be indicated with reference to the corresponding article. In total, this dissertation counts eight chapters. The following will briefly summarise the contents of each of these sections.

Introduction

The introduction of this dissertation sets out its objectives, which are subsequently framed within a historical narrative and archaeological research of the Eighty Years' War (1568-1648), also known as the Dutch War of Independence or Dutch Revolt (a terminology which will be dealt with later on in this thesis, see '1.1 Definitions, aims and objectives'). The archaeology of the Eighty Years' War in Flanders bears great potential in contributing to the European debate on early modern transformations and in raising public awareness of archaeology as a whole. Thus far, early modern features were however mostly incidentally found on multi-period sites and not as a result from specific research questions. An inventory of sites in the Zwin-Scheldt estuary, the geographical area in which the case studies are situated, illustrates the impact of the troubles on the archaeological record. These observations give rise to new research questions that, in turn, form the basis for the discipline to establish itself as a fully-fledged academic research field and allow for it to be treated of equal value in the selections made by heritage officers.

Theoretical framework

A following chapter establishes the theoretical framework that lies at the basis of the research questions raised in the introduction. It is argued, following sociologists like Bourdieu and Giddens, that routine, and the common objects used in the daily grind, are important to our social lives. These everyday habits can best be studied at times of

conflict, when the established certitudes are undermined. Different theoretical strands will be applied in search of how material culture functioned in the construction of group identities and how the same objects can have meaning to different people.

Methodology

The theoretical framework pleads for a focus on the total trajectory of material culture, from production to consumption. A thorough etic analysis, a study of a vessel's objective attributes, therefore remains indispensable. This methodological chapter explains the different steps taken in the registration of these attributes. The first paragraphs deal with the current state of knowledge on early modern pottery. The many gaps are partly blamed on the anecdotal approach applied in pottery studies today. On the basis of a critical discussion of available methods, a way forward is distilled, allowing to process early modern assemblages in an adequate, yet time-efficient way. A section on the encountered fabrics concludes this chapter, as it already sets a primary date and provenance for the ceramics studied in the case studies below.

Case studies

In search of the multiple responses to transformations in early modern times in the study region, a selection of sites has been made, representing different social groups.

Castle, Middelburg

A first of these sites, the castle of Middelburg-in-Flanders, makes up the largest body of data in this dissertation. Of particular importance are four garderobe chutes, dating to the late 16th and early 17th century. Other assemblages are of a broader date but their analysis is nonetheless rewarding. As the largest collection of early modern ceramics published for Flanders so far, it reflects the region's particular economic and political history, distinct to that of the present-day Netherlands. Moreover, the spatial distribution of the pottery allows to formulate some suggestions toward the functional interpretation of the castle site, and of the trade and social networks to which the castle's occupants had access. Additionally, gas chromatography mass spectrometry (GC-MS) analysis was performed on surface residues preserved with some of these ceramics. It allowed the identification of biomarkers for animal and vegetal foods, and thermal processing, as such reinforcing the methodology for examining food residues, particularly in pottery in which highly-varied meals were prepared. For example, this study forms the first instance in which dairy signals have been identified in mid-chain ketones. Furthermore,

insights are gained in the multiple uses of vessel types and questions arise on the dietary and medicinal practices of the inhabitants of this particular castle site.

Poor Clares convent, Middelburg

Middelburg's Poor Clares convent has also been the subject of enquiry on several occasions. An assemblage, recovered during excavations in 2006, makes up the core of this chapter, but is framed within a broader study of the convent domain. The analysis of the ceramic assemblage gives an account of how everyday life was experienced, in spite of the enforced contemplative lifestyle. Material culture shows that this presumed lifestyle was largely absent, certainly in the convent's early years. The connectedness of the Poor Clares to the outside world speaks clearly from the fact that they are inscribed in a monastic tradition, with no indications of material poverty and the possibility for a profane waste of time.

Saint-Isabella fort, Ostend

The Saint-Isabella fort was one out of a chain of fortresses from which the Spanish army besieged the city of Ostend, from 1601 until 1604. Although the site was excavated in 1990, the excavated finds have not been studied before. The analysis of the ceramic assemblage, which represents a typochronological reference horizon for the region, provides an opportunity to reevaluate the site. It allows to reinterpret the functions of the excavated structures (e.g. what was formerly interpreted as the fort's kitchen is more likely a refectory) and gives an insight into the consumption choices made by the soldiers and those accompanying them. As such, this study contributes to the wider debate on military life at the turn of the 17th century.

Blauwhof, Steendorp

In 1595, the Portuguese merchant-banker Duarte Ximenez bought the *Blauwhof*, a castle-like estate, in the Flemish countryside. An assemblage of pottery, recovered from the moat adjacent to the estate's manor house, testifies to the status and hybrid identity of this 17th-century immigrant family. Although they were well assimilated into Antwerp's high society, their foreign roots are still evident from particular Portuguese imports or unconventional use of locally-produced ceramics. Comparison with probate inventories shows that the two categories of Portuguese pottery serve different purposes, one in the public sphere of knowledgeable actors, and one in the intimacy of the Ximenez family.

Inter-site comparison and interpretation

In this concluding chapter, the data provided by the sites above is combined in order to advance our typochronological understanding of forms and categories in the region. It forms the basis for a discussion on the questions raised in the introduction on the material responses to transformations in early modern times. For example, it will be considered if warfare contributed to a shift in consumption patterns and how material culture functioned in the creation of group identities. Some concluding remarks finally give direction to future research and consider the role of early modern ceramics in commercial archaeology and public outreach.

List of Abbreviations

ADC	Archeologisch Diensten Centrum
ADW	Archeologische Dienst Waasland
ANT	Actor-Network Theory
APAA	ω -(o-AlkylPhenyl)Alkanoic Acid
CAI	Centrale Archeologische Inventaris
CATHMA	C�ramique de l'Antiquit� Tardive et du Haut Moyen Age
EDS	Energy-Dispersive x-ray Spectroscopy
EVE	Estimated Vessel Equivalent
GC-MS	Gas Chromatography Mass Spectrometry
MNI	Minimum Number of Individuals
mni	maximum number of individuals
MUFA	MonoUnsaturated Fatty Acid
NDO	Nationale Dienst voor Opgravingen
PAH	Polycyclic Aromatic Hydrocarbons
RAG	Rijksarchief Gent
TLE	Total Lipid Extract
TMS	TriMethylSilyl

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Chapter 1 Introduction

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1.1 Definitions, aims and objectives

In the light of the centennial commemoration of World War I, considerable attention is currently spent on the excavation of early 20th-century conflict sites in Flanders. However, an interesting question that resounds increasingly louder is why we choose to dig these trenches and not the remnants dating to the Eighty Years' War lying beside it. Despite the sheer amount of such early modern structures, features and finds, few were thus far examined. As a result of the current commercial context of Flemish archaeology, with its constant lack of time and money, this seems even more unlikely. Government heritage officers have to make critical choices on which sites to excavate or not, preferably based on a factual and ethical context. However, to this day, the selections have been made more or less ad hoc, and often with the early modern heritage as the victim.

Many of the terms used in the following chapters may lead to confusion, as the names of historic events vary in different countries. In the region considered here, the conflict between 1568 and 1648 is referred to as the Eighty Years' War. It can be used as a synonym for the Dutch War of Independence or Dutch Revolt, terms more familiar in the English-speaking world. To avoid any terminological confusion, I have opted to retain the locally most widely acknowledged term 'Eighty Years' War' to differentiate this conflict from other religious wars in early modern Europe. The myriad geographical designations

create additional fuzziness. Present-day Flanders is used to describe the northern Dutch-speaking part of Belgium. Its name is derived from the county of Flanders (existing from 862 to 1795), an area with ever-changing boundaries that has comprised parts of northern France, Flanders and the Netherlands. When using the Netherlands in the following text, this will not refer to the present-day country (unless stated otherwise). It will act as a synonym for the Low Countries, a geographical area more or less within the borders of the contemporary Netherlands, Belgium and Luxembourg. A further division can be made between the Southern (or Spanish) and Northern Netherlands from 1581 onward when the latter detached themselves as the independent Dutch Republic of the Seven United Provinces.

This dissertation explores the potential of an archaeology of the Eighty Years' War, advocating for this discipline to become a fully-fledged academic research domain and a field of equal value in the selections being made in developer-led archaeology. As several nations were involved, the study of these religious wars in particular is also significant on a wider European scale. This is particularly true of the English Civil War, given that many soldiers started their military career in the Low Countries.

For historical reasons, and due to the amount of data, our focus is limited to a specific area within Flanders, namely the region surrounding the Zwin-Scheldt estuary (Figure 1). This region already served as the principal economic artery of the county of Flanders in early medieval times. Since the Late Middle Ages, the area had become an economic and cultural hub on a European scale, with Bruges as its most important centre. However, from the second half of the 16th century onward, it was the focal point of several international conflicts, resulting in constantly-shifting occupations and in profound landscape transformations. Both trade and war formed stimuli in mobility of people and goods. Consequently, there is a large diversity in categories and use of sites and the related material culture. As such, the region can function as a case study for the whole of Flanders and beyond.



Figure 1 The research area with its different municipalities. The inset map shows Flanders (light grey) and situates the research area (dotted line).

In its study of 16th- and 17th-century ceramics, the objectives of this thesis are twofold. First, a typochronology will be drafted which allows the pottery to be framed in time and space. As such, this first objective responds to the economic finality associated with a strategic basic research scholarship. It is the hope that the insights provided will allow to process ceramic assemblages in a more efficient way.

From this etic analysis, we will move into the emic (Grassby 2005, 592), in search of the social potential of ceramics. The importance of artefacts in the construction, maintenance and transformation of identities during times of war has been illustrated by recent studies (e.g. Askew 2013). Continuing this line of enquiry, I will examine how ceramics were used during the Eighty Years' War by studying assemblages dating to this conflict, but also prior to and after the troubles. I have specifically chosen to leave military objects aside, focussing on the everyday goods that surround us. It will be argued that it are precisely these common objects that are *important elements in establishing group identity and providing a sense of common belonging to individuals brought together by extraordinary events* (Askew and Poulain 2015). As soldiers are not the only ones touched by conflict, I will focus on multiple social groups, from camp followers to Poor Clares. The study of how ceramics functioned in the social discourse of both combatants and non-combatants will provide *new insights into the way in which material culture was used to construct, challenge and change concepts of identity in early modern Flanders* (Askew and Poulain 2015).

1.2 Historical background to the Eighty Years' War

First, before analysing the archaeological data, some broad outlines of the historical developments in the 16th- and 17th-century Low Countries are given. This brief historical framework does not only function as a general background and mere chronological delineation to this thesis. As will become clear later on, these large historic events have actively left their trace on local soil. A starting point for this historical outline is set at the death of Charles V in 1558. His centralising policy was continued under his son, Philip II. The new king of Spain saw the Roman Catholic religion as the binder of his empire. However, in the Low Countries, Calvinism had an increasingly-large following.

In an attempt to counter this Calvinist heresy, the Spanish crown appealed to Fernando Álvarez, better known as the Duke of Alva, to crush the religious uprising. The arrival of the Duke in the Low Countries in 1567 marked the beginning of profound transformations in the area (Parker 2004, 91). The repressive policy of Philip, combined with the economic crisis of 1565, incited the resistance (De Schepper 2004, 21). In 1568, the Calvinist Prince William of Orange engaged the Spanish troops in the battle of Dalheim, an event traditionally considered as the trigger of the Eighty Years' War. These religious wars gave rise to the erection of a totally new type of large-scale fortifications and, as such, exerted considerable pressure on society and landscape. As the result of an offensive conduct of war, the royal Spanish forces rapidly conquered the county of Flanders (De Schepper 2004, 23). In the 1580s and 1590s, marauding bands of protestant Beggars (referring to Calvinist Dutch and other malcontents) penetrated deep into this Spanish territory, leaving a trail of destruction (Parker 2004, 14). Philip II eventually renounced the Netherlands as a dowry to his daughter Isabella and her husband Albrecht VII, Archduke of Austria, in 1598 (Brand 1981, 17), a poisoned gift to say the least. As the continuously-shifting frontier gave way to a more classical style of warfare after 1600, with a shorter and less permeable front (Parker 2004, 11), the impact of this historic event even augmented with the Siege of Ostend (1601-04) as a tragic climax. The violent fluctuation and general rise in the cost of living can serve as other examples (Parker 2004, 133).

After the Twelve Years' Truce (1609-21), the region was once again marked by continuous war and inundations, partly natural, partly induced by the Dutch Republic to keep the enemy at bay. Farming land grew infertile by the salt water, trade and industry were reduced to a minimum (Verschelde 1867, 122-124; Martens 1994a, 42, 45; 2008, 271-272). Despite some successes of the Spanish army in the first years following the Twelve Years' Truce, the tide turned in favour of the Republic. Due to the imperial overstretch of the Spanish empire, other conflicts demanded the attention of the Spanish crown. The Republic prevailed over the bankrupt *Ejército de Flandes*, the Royal Spanish army, from 1629 onward (Vermeir 2001, 3-5), eventually forcing them to accept the terms of the Peace

of Munster in January 1648. This treaty serves as the end point of this brief historical outline.

The Eighty Years' War played a key role in the further development of the Netherlands. With the Munster treaty, the Dutch Republic finally obtained its official independence. Borders between the United Provinces and the Spanish Netherlands were drawn along the lines of fortifications and lie at the basis of the present-day border between Belgium and the Netherlands. These borders were not solely a political construction but also had an economic and cultural significance as many intellectuals and men with capital had migrated north because of the troubles. Flanders remained largely Catholic and the high days of trading cities as Antwerp and Bruges were over as the waterways toward them were cut off. The Republic on the other hand faced its Golden Age with the success of the Dutch East India Company as a chartered company in Asia.

The following paragraphs explore what archaeology has thus far revealed and assess the potential of an archaeology of the Eighty Years' War. However, in order to understand the conditions under which these early modern remains were dug, a summary excursion is given on the current position of post-1500 conflict archaeology in Flanders.

1.3 Archaeology of the Religious Wars in Flanders

A future archaeology of the Eighty Years' War in Flanders is inextricably bound up with that of the entire early modern period (1500-1800). In Flanders, post-medieval archaeology (*postmiddeleeuwse archeologie*) is the established term when referring to this period from 1500 onward. This term illustrates the current position of the discipline, as a mere chronological extension of the Middle Ages (Gaimster 2009, 527). Local history clubs have a longstanding interest in this period. For example, the antiquarian circle Land van Waas mentions finding several 16th-century vessels during their 1902 excavations in the city of Sint-Niklaas, Belgium (Reynaert and Willemsen 1902, 40). Since the development of urban archaeology in the 1970s, professional archaeologists have become increasingly confronted with 16th- to 18th-century remnants (De Clercq *et al.* 2012, 44). This confrontation has raised the awareness that the time period could no longer be ignored. A first step toward a more independent status for modern archaeology in Belgium dates from 1985. A conference titled *Archéologie des Temps Modernes - Premier Colloque* was organised at the request of the Society for Post-Medieval Archaeology by F. Verhaeghe with the cooperation of the Free University of Brussels and M. Otte of the University of Liège (Verhaeghe and Otto 1988). This conference aimed at stimulating research on modern matters. However, the descent out of urban rescue excavations means that few post-medieval archaeologists work within a university framework (Verhaeghe 1997b, 25;

Courtney 2009, 177; Gaimster 2009, 526). Together with the importance of history and art history in the study of the early modern period and the very organisational structure of Flemish archaeology, it probably explains why the initiative of Verhaeghe and Otte never really took off. Due to the high degree of variability in the prescriptions made by curators (De Clercq *et al.* 2012, 47), these modern layers are nowadays, at best, registered correctly. However, they are mostly seen as a mere obstruction to older traces. For a more in-depth discussion of early modern archaeology in Flanders, see Herremans and De Clercq (2013).

1.4 Exploring the archaeological record

The view that the early modern period is fully known through historical and art-historical sources is still going strong within Flemish archaeology. This view is in line with the many challenges regarding historical archaeology that other countries face in Continental Europe (Mehler 2013). Nevertheless, several sites have already yielded early modern remnants. A following step thus consists of creating an inventory of the fieldwork up to this day. However, as many of the early modern features in archaeological fieldwork are just registered as ‘post-medieval’, they cannot be assigned to the period of the Eighty Years’ War with certainty. Therefore, I have integrated all sites dating between 1500 and 1800.

As they are good indicators of archaeological policy, the inventory is made up of watching briefs, trial trenches and full excavations which have brought to light traces of early modern times. This inventory is based on a thorough study of both published and grey literature, the CAI (*Centrale Archeologische Inventaris*) (SMR database) and oral information. Of particular importance to the literature study is the *Archaeologia Mediaevalis* series. Since its foundation in 1978, it gives an annual review of medieval and post-medieval excavations in Belgium. However, there are plenty of other sources. The journals of the local history clubs give a good overview of the research prior to the 1993 archaeology decree, implementing the Valletta convention. This European treaty is directed toward the protection of archaeological heritage. Following its implementation in Flemish legislation, excavations have become increasingly the domain of professional archaeologists, thus limiting the role of local history clubs. Next to these clubs, the inter-communal archaeological services ADW (*Archeologische Dienst Waasland*) (since 1987, now *Erffpunt*) and the City Archaeological Service of Bruges (since 1977, now *Raakvlak*) publish or have published reports on an annual or bi-annual basis. This way, the inventory covers the following municipalities: Assenede, Beernem, Beveren, Blankenberge, Bredene, Bruges, Damme, De Haan, Eeklo, Gistel, Jabbeke, Kaprijke, Knokke-Heist, Maldegem,

Moerbeke, Oostkamp, Ostend, Oudenburg, Sint-Gillis-Waas, Sint-Laureins, Stekene, Wachtebeke, Zedelgem, Zelzate and Zuienkerke.

The inventory does not claim to be exhaustive. Archaeological research may have slipped through the literature study and the CAI. Moreover, late medieval remnants may have been misinterpreted as early modern and otherwise. Finally, many sites have not yet been published and will in all likelihood never be. Nonetheless, it should give a pretty accurate example of what has happened for the early modern period in the Zwin-Scheldt estuary thus far.

Augerings, building archaeology, aerial photography, historical and cartographic studies, loose finds and finds detected through field walking are not included in the inventory. This latter type of survey has already been extensively applied in Flanders. In 1978, students from the Seminar of Archaeology at Ghent University started prospecting Flemish municipalities as a part of their licentiate's thesis. It led to an enormous increase in data for the early modern period. In this way, the research area has been partly covered: the former independent municipalities of Assebroek (Soers 1985), Boekhoute (Windey 1983), Lembeke (Van Thuyne 1993), Oedelem (Vandermoere 1981), Oostkerke (Hillewaert 1984), Stene (Decoster 1984) and Uitkerke (Vanhove 1987) and the municipalities of Damme (Seys 1982), Gistel (Verbrugge 1988) and Oudenburg (Hollevoet 1985). Although some concentrations of finds seem to indicate the presence of sites, the majority of the material was supplied as a consequence of manuring the fields.

Next to field walking, aerial photography has also greatly contributed to early modern archaeology in Flanders. Pilot-instructor Jacques Semey was the first to discover its potential at the end of the 1970s (Figure 2). In collaboration with Ghent University over a 1,000 flight hours have been made, revealing all kinds of features, including early modern ones. In more recent years, this research is complemented by the study of aerial photographs dating from World War I and II as these show the landscape before its large-scale development.



Figure 2 Aerial photograph of Damme's fortifications (Ghent University, Department of Archaeology, Jacques Semey, dia number 119009, September 1996).

1.4.1 An apparent increase in data

The overall graph of reports on sites in the Zwin-Scheldt estuary mentioning early modern features shows an exponential increase (Figure 3). A first excavation dates from 1939. An amateur archaeologist revealed a 17th-century sluice in the Lieve canal, connecting the cities of Bruges and Ghent (De Meulemeester and Termote 1985). From the 1970s onward, in line with the first city archaeological services, the number of archaeological enquiries gradually grew, climbing to a maximum of 30 in 2010. Several causes lie at the basis of this evolution. A first consists of a better archaeological screening of the built-up land. The total surface of the municipalities in the research area adds up to 144,279.17ha. Between 2003 and 2011, the built-up land in this area increased with 1.53% or 2,207.47ha to 34,833.47ha (FOD Economie 2011). The number of archaeological investigations mentioning early modern features, however, rose from 8 in 2003 to 18 in 2011. The real figure is probably higher as reports are only due two years after the end of the archaeological enquiry. Other reasons for the exponential evolution lie in the heightened awareness for elements dating from the early modern period and the obligation to make a report since 2008.

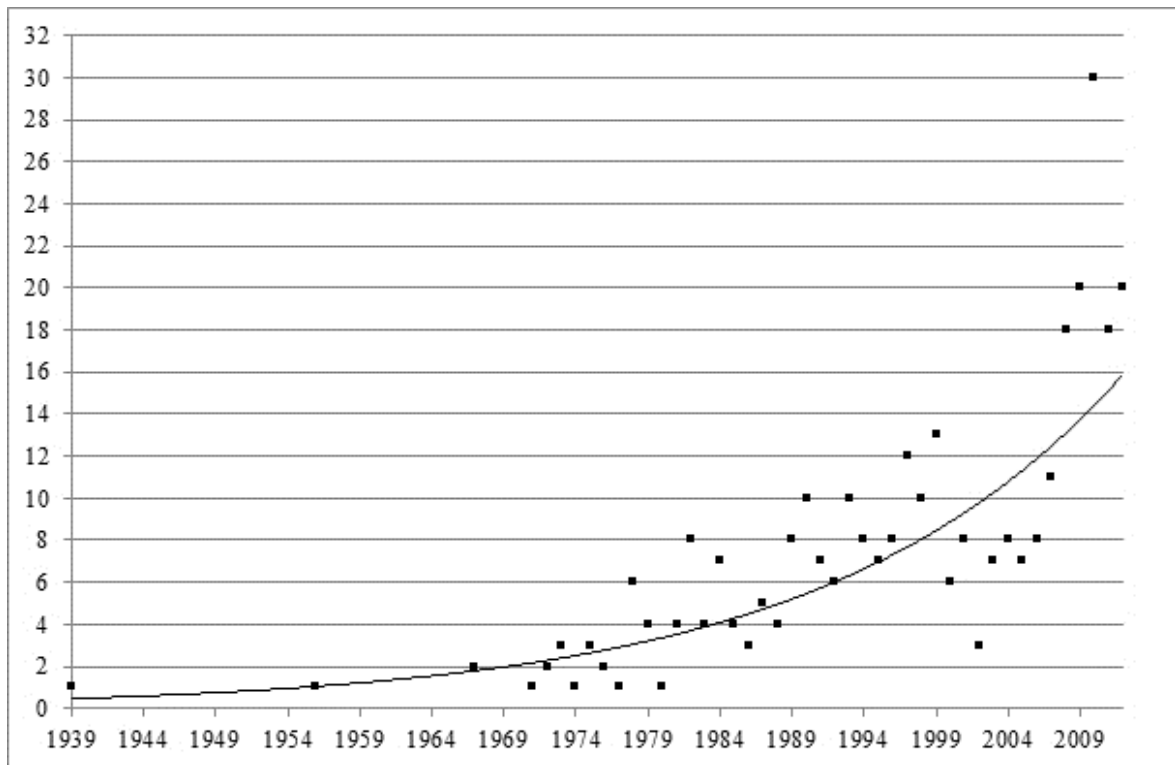


Figure 3 Number of watching briefs, trial trenches and excavations in the research region with early modern features ($n=330$).

The graph suggests that the future for early modern archaeology in Flanders is bright. However, this increase in data is relative and mainly due to a general growth of Flemish archaeology as a result of implementing the Valletta convention. Most of the data listed in the inventory was incidentally found on multi-period sites and was therefore recorded rather coincidentally than as a choice of heritage management or a specific scientific research question. Moreover, when we look at the spread of sites in the research area (Figure 4), some remarkable gaps in our knowledge of the 16th to 18th century can be noticed: archaeological data is lacking in the municipalities of De Haan, Kaprijke and Zelzate.



Figure 4 Distribution of early modern sites in the research region.

1.4.2 The Eighty Years' War in archaeological fieldwork

Although the resolution of early modern data is often low, some sites can, directly or indirectly, be ascribed to the period of the Eighty Years' War. The sites that can only be indirectly ascribed to this war, and thus reflect everyday life during this period, are grouped according to their location in cities, small towns, or countryside in order to scrutinise the impact of the troubles on these different geographical units and scales. A final chapter deals with those sites that are the direct result of military actions. This overview is not comprehensive. A selection of sites most relevant to the argument has been made.

1.4.2.1 The urban environment

In an urban environment, the domestic life is most commonly represented. As was to be expected, cesspits appear in the majority of sites. In the city of Bruges, the cesspit of the Zilverstraat (Swimberghe 1985) has been extensively published. The material appears to have belonged to a well-off household and could be dated to the second half of the 16th century, indicating that at least certain individuals within the urban environment maintained their high social status. In that respect, the find of a plate with a double-headed eagle is rather interesting (Swimberghe 1985, 192, fig. 34). Swimberghe (1985, 194) suggests a connection to the arms of Charles V and, thus, a possible association of this household with the Spanish crown. Unfortunately, many cesspits remain unstudied (e.g. De Gryse and Hillewaert [2006, 12]). Examining these cesspits could provide a more differentiated insight into urban life during the Eighty Years' War.

Another important aspect of urban early modern archaeology concerns religiosity. One site in particular illustrates the impact of the troubles on religious life. In 2010, trial trenches were made on the former Dominican convent in Bruges. This convent was given up after Bruges joined the Union of Utrecht in 1580, by which the city showed its aversion to the Spanish presence in the Netherlands. Although the interior of the church was plundered by Beggars in 1578, it remained in function for Protestant services. The convent, however, was partly rented out. Moreover, two streets were constructed on the site, demolishing many of its buildings (Decraemer *et al.* 2010, 32; Hillewaert and Verwerft 2011, 9). The same process occurred in the Boudelo abbey in Klein-Sinaai, where the material culture suggests a continuity in the occupation on the site after the dissolution of the abbey in 1578 (De Belie 1993, 19). On the Bruges' Dominican convent, the find of a maiolica plate dating to the second half of the 16th century and originating from Deruta, Italy is noteworthy (Hillewaert and Verwerft 2011, 33). Although it seems that certain individuals maintained a high social status, the wartime economy did impose certain restrictions: compared to sites in the Northern Netherlands, e.g. the Dokkershaven in Vlissingen (Claeys, Jaspers and Ostkamp 2010), fragments of these types of exotic pottery seem to be much less represented.

1.4.2.2 The small towns

The early modern archaeology of small towns is more poorly attested. In contrast to the urban environments of Bruges and Ostend, cesspits only rarely appear in the archaeological record. Of particular importance here are the fishing villages of Heys and Koudekerke. Excavations in Heys revealed several refuse pits filled with fish bones (Dewilde and Wyffels 2001, 44). A further analysis of these faunal remains would certainly contribute to our knowledge of fishery in times of war. As is illustrated for the consumer site of Middelburg's castle, most of the marine fish was of coastal origin instead of having been caught on open sea, reflecting *the dangers and prohibitions limiting open-sea fisheries at the time* (De Clercq *et al.* 2007, 53). On the other hand, archaeological research in the nearby fishing village of Koudekerke uncovered the foundations of the parish church. Historical sources mention the presence of Maurice of Nassau's troops in this region from 1587 onward. As a result, the Four Members of Flanders (consisting of Bruges, the Franc of Bruges, Ghent and Ypres) probably decided to turn Koudekerke's church tower into a fortified observation post in 1593. An account of an alderman of the Franc of Bruges reports that a squadron of cavalymen, together with their horses, took up residence within this church of Koudekerke (Huyghe and Hillewaert 2009, 3; Hillewaert and Huyghe 2010, 94). Several adjustments were subsequently made to the church, such as the raising of 22 partitions for the housing of horses and the build of an adjacent oven, to bake the bread of the soldiers (Huyghe and Hillewaert 2009, 4). In two different trenches, brick foundations belonging to this church were found (Hillewaert and Huyghe 2010, 95).

However, the report of Hillewaert and Huyghe (2010) makes no mention of finds that can be related to this military conversion of the church.

1.4.2.3 The rural environment

Archaeological research in rural areas has mainly been dominated by castle sites. In Assenede, near the border with the Netherlands, remains of the 16th-century residence of Andries Andries and its surrounding moat have been successively uncovered in 2001, 2004 and 2012 (De Decker 2001; Cherretté and De Decker 2005a; b; De Decker *et al.* 2006; Acke *et al.* 2013). In the second half of the 16th century, a Spanish garrison was quartered at this castle site. As a result, the town of Assenede became repeatedly raided by Sea Beggars (De Decker *et al.* 2006, 74). A first attack in 1572 destroyed the lower court, while a year later parts of the village were burned down. The castle would eventually be (partly?) turned into ruins in 1584 (Baete 2006, 32). Finally, in the same town of Assenede, a 20m-wide moat was found. It was interpreted as a possible defence around the town during the Eighty Years' War (Bot *et al.* 2011, 56-57).

Next to castle sites, there are also traces of a more modest style within the rural environment. Structures that can certainly be interpreted as farmhouses were only found on a small number of sites (e.g. In 't Ven and De Clercq [2005, 54-55] and Van Roeyen [2000]). These could unfortunately not be attributed to the period of the religious troubles with certainty. Other forms of rural exploitation are quite rare, too. Excavations in Sint-Michiels revealed several pits for the extraction of sand, dating to the late 16th and 17th centuries and possibly belonging to the historical farmstead *Ten Briele* (Decraemer 2010, 4). Furthermore, excavations in Dudzele delivered proof of brick production dating to *early post-medieval times* (In 't Ven and De Clercq 2005, 42). The fact that this production halted may be indicative of the impact the religious troubles had on arts, crafts and industries.

On a larger scale within these rural areas, the impact of the Eighty Years' War on the landscape becomes visible. For example, as a defensive measure, large parts of the Waasland region were flooded during the conflict. The stagnated water level resulted in the deposition of clay particles. This so-called 'Farnese clay' (referring to Alexander Farnese, Governor of the Spanish Netherlands from 1578 to 1592) was recorded on several occasions (e.g. Pieters [2012]). Similarly, during the Siege of Ostend, large zones were flooded. After this siege, the land was impoldered once again. The process of flooding and impoldering is illustrated in Zandvoorde, where excavations uncovered a dike, raised in 1663 to protect the town of Zandvoorde (Vanhoutte and Pieters 2002, 79; 2003, 96, 105-106).

1.4.2.4 Sites of conflict

So far, most sites were indirectly attributed to the period of the Eighty Years' War on the basis of their dating or the presence of written sources. The lack of in-depth analysis makes it hard to really identify and scrutinise the impact of the religious troubles on everyday life. Traces of a military intervention are, however, more easily recognisable and are therefore better represented in the archaeological fieldwork.

Most of these military sites are concentrated in and around the city of Ostend. As a stronghold of the Dutch Republic within the Spanish Netherlands, Archduke Albrecht VII set up siege surrounding the city, in the hope to relieve Ostend of the Dutch and English troops stationed there. The conflict lasted from 1601 to 1604 and culminated into Spanish victory. Because of the duration and the many casualties, it was quickly called the 'New Troy'. A first indication of this Spanish military presence was found in the Saint-Clara fort in Stene, part of the belt of fortifications surrounding Ostend. After the siege, a farmstead was built on the former Saint-Clara fort. Finds on this site were limited to a layer of rubble with few early modern ceramics (Hollevoet 1987), possibly resulting from the dismantlement of the fort. Another strongpoint in the ring of forts around Ostend was the Saint-Isabella fort, excavated in 1990 (Van Eenhooge 1991), and one of the sites discussed here.

The Siege of Ostend is reflected on various sites in the city itself. Excavations on the Visserskaai brought to light several bulwarks, evidence of the ever-evolving fortifications, and material finds such as cannonballs, powder horns and ceramics (Pieters *et al.* 2003). The same applies to the 2003 excavations on the Van Iseghemlaan and the Monacoplein where fortifications, skeletons, and plenty of finds dating from the siege were found (Zeebroek, Schietecatte and Pieters 2005). Early 17th-century skeletons are a recurring theme in the Ostend excavations. A watching brief in the Sint-Pietersstraat in 1999 revealed a total of 75 burials, of which some were once again victims of the acts of war (Schietecatte *et al.* 2003, 126). Several of the Ostend burials have been subject to a physical-anthropological research (Vandenbruaene *et al.* 2003). The bone material points to a mainly-male population living under hard conditions, resulting in the strain of spinal column and hip and shoulder joint. However, diseases related to overfeeding indicate that some of the more aged individuals climbed up the social ladder. Nevertheless, they all died in the prime of their life (Vandenbruaene *et al.* 2003, 303). A comparison with human remains found outside the city of Ostend would provide further insights in life under siege conditions.

To the west of Ostend lay the late medieval fishing village of Raversijde. This village was used for the cavalry barracks of the archdukes during the siege. Diverse human, horse and bovine skeletons, some features (e.g. a possible bomb crater) and a small amount of material refer to this function (Pieters *et al.* 2004, 141-142; Pieters *et al.* 2013, 531-532). Then, situated to the southeast of Ostend, lies the city of Oudenburg. Although the main

emphasis of archaeological research in Oudenburg has been on its Roman past, two sites bear traces of the Eighty Years' War. In the Marktstraat a filled moat relates to the fort that was constructed from 1584 onward on the site of the destroyed Saint-Peter's abbey and was part of a second, wider ring of forts around Ostend (Hillewaert and Hollevoet 1995, 279). A more recent investigation reported on two successive burnt layers possibly caused by the destruction of Oudenburg during the religious troubles in the late 16th century (Vanhoutte and Dhaeze 2011, 25). These destructions, most likely inflicted by protestant Beggars coming from Ostend, is one of the main reasons why the city became besieged.

The rather limited number of sites listed above illustrates that programmed excavations on sites of conflict were largely absent in the past. Moreover, a lack of study renders it difficult to go into detail on those sites that have been excavated. This contrasts with a certain positive trend that can be observed for more recent years. The increasing number of excavations on conflict sites cannot, however, be ascribed to a sudden choice of heritage management or scientific research questions but flows from certain economic and touristic motivations. In the context of different European Interreg projects several of the forts in the region were reconstructed and incorporated into a touristic-recreational heritage trail. The Interreg Community Initiative aims toward further integrating border regions (in case Flanders and the Netherlands). As a part of these projects archaeological research was undertaken. However, in line with the principle of in situ preservation, as stated in the Valletta convention, the archaeological measures were restricted to making some augerings, isolated sections, or more seldom to geophysical research. As the interventions were 'limited' to the deepening of the most recent filling of the moats and the reconstruction of the ramparts, the number of archaeological features and finds recovered is only small. Many of the forts and fortifications, investigated in the context of the Interreg projects, date from the Eighty Years' War and were subsequently reused and adjusted in the myriad conflicts that followed afterwards (Brand 1981, 10).

A first enquiry in the context of this heritage trail is one on the so-called *Schaapskooi* in the city of Damme, dating back to 2005. Paleoecological research in the outer city moat allowed the reconstruction of the 17th-century landscape around Damme (de Wolf *et al.* 2006). Then, in 2011, research was conducted on the site of Fort Sint-Frederik in Westkapelle, Knokke-Heist (Figure 5). This fort was erected by the Spanish to protect the hinterland after the Dutch reconquest of Sluis in 1604.



Figure 5 The Fort Sint-Frederik in Westkapelle, Knokke-Heist, erected in 1604 (courtesy of West-Flanders Province, © Vildaphoto, Misjel Decler)

After a geophysical prospection (De Smedt and Van Meirvenne 2011), three trial trenches located the inner moat and glacis of the fort and revealed a thus far unknown ravelin (Raakvlak 2011, 44). In the immediate vicinity of this Fort Sint-Frederik lies the Fort Sint-Donaas. Unfortunately, the actual fort, also raised in that early 17th century, is destroyed by post-World War II clay exploitation. Only its more recent (1705) swallow's tail is preserved (Figure 6). In reconstructing the moat, the original inner ditch was only slightly disturbed. The trial trenching revealed an enormous amount of waste from the 1980s onward (Raakvlak 2011, 41-42; Decraemer 2012a, 12).

Overall, the forts remain poorly studied. However, to end this overview on a positive note, the site of Middelburg-in-Flanders forms the exception to this rule (De Clercq *et al.* 2007; Poulain, De Groot and De Clercq 2013). We will return to this site later on in this dissertation.

Concluding, of the total amount of early modern, archaeological enquiries in the research area, the sites of conflict mentioned above only represent a small percentage. This is quite surprising when considering the impact of the wars on the landscape but is in line with the lack of research questions into early modern matters. Figure 7 confronts the excavated record with the inventory of military relics of the Eighty Years' War and the War of the Spanish Succession made up for the Interreg projects, using the canal Bruges-Ghent as its western demarcation and the city of Antwerp as its eastern border. It clearly shows that only a fraction of this potential is investigated.



Figure 6 The reconstructed swallow's tail of the Fort Sint-Donaas, Knokke-Heist, dated to 1705. Clay exploitation to the left of this picture destroyed the initial early 17th-century fort (courtesy of West-Flanders Province, © Kustfotografie, Misjel Decler).

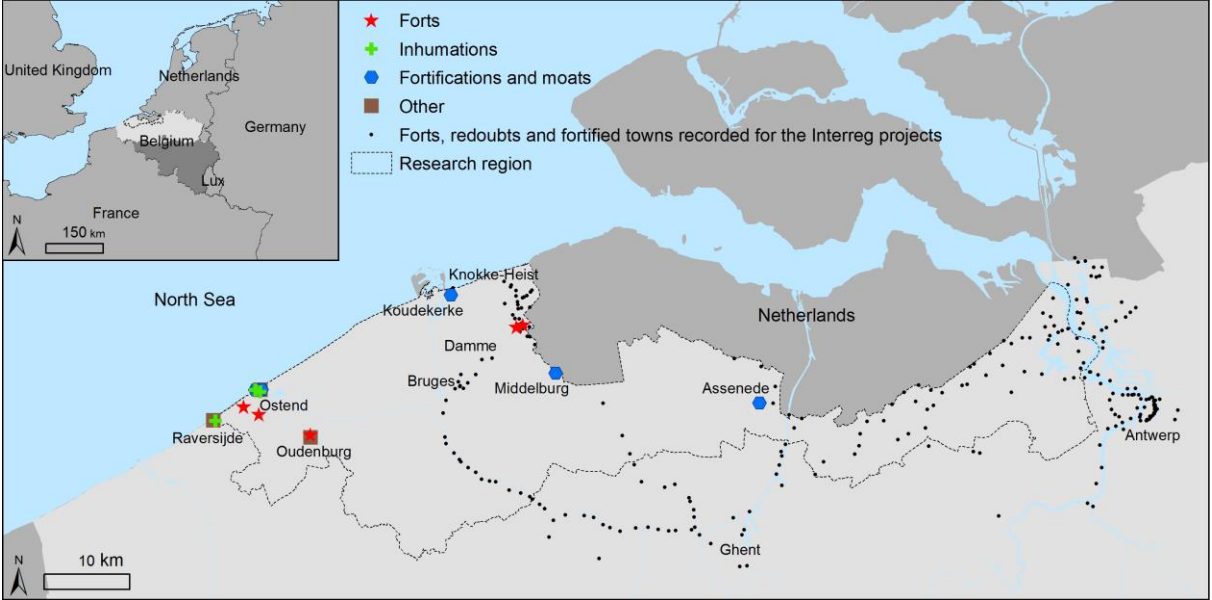


Figure 7 The excavated features relating to the Eighty Years' War compared to all military relics dating from this war and the subsequent War of the Spanish Succession, as recorded for the Interreg projects.

1.5 Establishing a comparative framework

Comparing the above sites with archaeological research on other European contemporaneous sites allows us to explore the different aspects of this potential. As Roberts (1988) notes in his study of the Pontefract castle during the English Civil War, (art-)historical sources inform us on what was done, when it was done and sometimes why. However, they often lack a clear insight in how things were done. An incorporation of archaeology into the study of the Eighty Years' War would thus provide a more holistic image of life in these troubled times. In what follows, this interdisciplinary approach is set forth.

The turbulent historic events of the Eighty Years' War have, beyond all doubt, disrupted the life of those inhabiting the Zwin-Scheldt region and left profound scars in its landscape, still surviving up until today. For instance, the area witnessed the construction of a profound and rapidly-changing military architecture, with medieval town fortifications being transformed into bastioned fortifications and the raising of linked-up fortresses, such as the Cantelmo line in the municipality of Knokke-Heist (Figure 8). This line, dated 1640, is named after Don Andreas de Cantelmo, who restored and fortified the preceding Fontaine line, built eight years earlier. This line was made up out of a wall and moat and connected several forts, such as Sint-Donaas, Isabella and Sint-Anna. In the case of the English Civil War, Harrington (2004, 13) observes growing evidence that these medieval walls were not destroyed and abandoned, but adapted and actively used during the war. How did these medieval and new fortifications interact in the Low Countries and what was the impact of this in-depth extension of defences on the urban tissue and surrounding countryside? Moreover, as fortifications no longer served their purpose, many were subsequently leveled (e.g. the Saint-Clara Fort), while others were maintained (e.g. the Fort Sint-Donaas). An archaeology of these *buried landscapes of war* could reveal the processes behind this reasoning and could expose possible differences between town and countryside (Harrington 2004, 5, 12). Next to a changing military architecture, the troubles also resulted in the large-scale migration of the local population. For example, Flemish refugees have been attested, both archaeologically as in written sources, in late 16th- and 17th-century Norwich (King 2011). Simultaneously, other groups, mainly of military nature, came into the Low Countries and networks of contact, trade and exchange profoundly changed. Many aspects of existing identities, such as religion, status and group identity, became challenged in this arena of conflict, giving way to new and transforming identities, each with its respective material culture. From an archaeological point of view, these social differences are a stimulating line of enquiry.



Figure 8 The zigzag trace of the Cantelmo line, Knokke-Heist, is still visible in the present-day landscape (courtesy of West-Flanders Province, © Vildaphoto, Misjel Decler)

This theme of conflict and related transformations in material culture thus holds another reservoir of untapped potential. Did warfare and crisis contribute to shifting patterns of consumption? De Vries (2008) observes the transition from an 'Old Luxury' to a 'New Luxury' pattern in the consumption of material culture (see '2.3 Changing consumer preferences'). In the cities of the Eighty Years' War, the old luxury pattern suffered heavily, yet, the new luxuries continued expanding (Baatsen and Blondé 2011, 101, 115, 117). These new commodities offered early modern men and women new ways of negotiating their position within and between social groups.

Several authors already dealt with this duality of commodities, being both a functional and social utility. The combination of mould and print technology rendered objects into symbolic artefacts (Gaimster 2003). Krueger (1979, 259) examined the Reformist polemics on two 16th-century Siegburg stoneware vessels, namely an *Interimschnelle* and a funnel-necked jug with the double-headed portrait of the Pope and the Devil. In the process of forming religious identities, such images on everyday objects became increasingly important (Ring 2013, 167). However, these designs on Rhenish stoneware were not a prerogative of Reformist milieus. Rhenish stoneware was used as a means of propaganda by all parties in the conflict and could thus be used to express political allegiance (Gaimster 1997, 148). Stoneware potters skillfully responded to this fact. For example, 16th-century Raeren potters often applied the royal portraiture or arms of Spain for the South-Netherlands export market (Gaimster 1997, 153). However, the use of material culture as propaganda is not restricted to stoneware alone. Duco (1992) illustrates that even the commonest object, in case clay pipes, can hold political meaning.

At the same time, warfare accounts for new imports and changing fashions. The moving of Cologne potters to the Protestant-Lutheran communities in Frechen has been explained by the religious intolerance under the archbishopric of Adolf von Schauenburg (1547-65)(Krueger 1979, 293-294). Similarly, toward the end of the 16th century, several Siegburg and Raeren potters moved to the safer Westerwald in present-day Germany and started producing blue-grey stoneware (Gaimster 1997, 151, 167, 226).

As is clear from the above, religiosity continued to interweave many aspects of early modern life. The religious landscape of medieval Catholicism was, however, subject to considerable changes (Spicer 2011, 19). Consequently, questions concerning the material response of different social groups to the Reformation and subsequent Counter-Reformation come to the foreground. Gaimster and Gilchrist (2003, 3) illustrate that these responses are multiple and complex and do not encompass a mere rejection or adoption of Catholicism or Protestantism. The incorporation and gradual change of Christian practice into a Reformed religion and the differences between devotion in domestic and public space should be of key importance in an archaeology of the Eighty Years' War. Moreover, examining the conversion of churches to fit the new liturgical needs of Reformed worship (see Spicer 2003) would give a new impulse to research on churches, now all too often restricted to a chronological listing of building phases.

Next to matters of religious identity and changing fashion, material culture can also unveil the general conditions of living in a wartime economy. For example, how was life for the garrisons? What did they eat and how was the food procured, which weapons and ammunition were available and where were they produced, how were the dead buried and how did this all change under siege conditions (Harrington 2004, 8, 121)? Is it even possible to discern the presence of soldiers in an archaeological assemblage and, in the case of a military occupation of castles, is there a break with the elite occupation phase (Harrington 2004, 58)? The archaeology of the English Civil War makes some further contributions to these research questions. For example, recent research by Askew (2013) shows the importance of material culture in maintaining a garrison's group cohesion and a soldier's identity. She makes the case that the use of outmoded vessels in Eccleshall, Sandal and Pontefract castle was *a conscious effort by their defenders to legitimize and sustain their identity through references to the past* (Askew 2013, 5). Consequently, the destruction of this material culture also holds social value. Harrington (2004, 119) rightfully notes that selectivity comes into play in what is discarded and what is not. Such a use of outdated vessels may be observed in the Verbrand Fort in Oostkerke, Damme. Although the fort was erected by the French in 1703 during the War of the Spanish Succession, some of the ceramics that functioned during the use of the fort date from the second half of the 16th to the 17th centuries (Decraemer 2012b, 15). It must be said that the use of outdated vessels remains rather hypothetical here, as only twelve sherds were found in the fill of the moat. Eight of them predate the War of the Spanish Succession. The four other sherds date from the 19th century and indicate when the moat was filled up (Decraemer 2012b, 15).

The non-military aspect of an army must, however, also be borne in mind. Several documents clearly indicate the presence of women and children in garrisons during the Eighty Years' War. For example, the chaplain of the garrison church of Antwerp baptised 571 children between 1628-37 (Parker 2004, 150). How is this presence of women and children translated into material culture, how was the gender division organised in a fort and how was sexuality experienced? Concerning the latter, the excavations at Dudley Castle, West Midlands, England, give interesting insights. Ten animal-membrane condoms were found in a latrine containing the remains of a royalist force defending the castle under siege conditions between 1642 and 1646 (Gaimster *et al.* 1996, 129). Five were used and discarded by a member or members of the garrison, another five were presumably unused as they nestled one inside the other. As these were relatively expensive, it is suggested that they belonged to officers, whose wives are known to have been present during the royalist occupation (Gaimster *et al.* 1996, 132).

1.6 Research agenda

With the above addressing only but some of the research potential of an archaeology of the Eighty Years' War, the question remaining is: how is the way forward?

The region surrounding the Zwin-Scheldt estuary, and the whole of Flanders by extension, witnessed some major political and socio-economic transformations during the early modern period, many as a result of the almost continuous warfare. Within this new field of the Eighty Years' War, many aspects of domestic and military life were challenged and altered. This observation offers an archaeology of the Eighty Years' War the possibility to establish itself as a fully-fledged academic research field and holds one of the main future lines for a heritage policy of the early modern period. Not only can this line of research be framed within the international debate on sites of conflict and related transformations in material culture but it can also actively contribute to this historical, scholarly discussion as the different nationalities involved in this conflict took some of the social and cultural practices of the Low Countries back to their homelands. Last, but of equal importance, the incorporation of forts and lines into a touristic-recreational heritage trail offers the possibility to raise the awareness with the wider public on archaeology.

However, in order to determine the relation between transforming identities and new consumption patterns, research needs to shift from the dominant urban and religious sites and those of the well-to-do to a more diverse spectrum of social groups. Instead of another metre of World War I trenches, we should indeed consider excavating the farm or military fort beside it. Within the advocated social diversification of sites, considerable attention has to be paid to material culture. In the past, the emphasis has all too often been solely on the structures themselves. A renewed balance is desirable, in which also early modern artefacts are exhaustively gathered and studied. A well-considered choice for certain closed, narrowly-dated assemblages can better be made with hindsight, during the post-excavation phase. It is the hope that, instead of the current ad hoc approach, the choice for certain, socially-stratified sites and assemblages enables an insight in how the different social groups at play interacted through new forms of material culture during the Eighty Years' War.

This thesis should be viewed within the advocated material turn. Particular attention will be paid to ceramics, the reasons for which will be elucidated below.

1.7 Another ceramics thesis?!

Yes, this thesis exclusively deals with ceramics. Why ceramics? First of all, pottery is generally cheap and, as such, it is an accessible commodity for all strata in society. Even the wealthy abbey of Enname invested in ceramics, with the few entries in the abbey's accounts indicative of its low value and everyday use (De Groote 2008a, 430). The central position of ceramics in the daily routine is crucial to this thesis, as it will be argued that the way in which pots are used is socially conditioned. An understanding of these conditions becomes possible as ceramics are breakable and hardly have any secondary value. After breakage, crockery is thus often discarded, ending up in archaeological assemblages, in a pristine state of preservation. Moreover, early modern ceramics are found in large numbers, opening up the possibility for statistical analysis and comparison within and between sites. It results in a large body of data underlying any further interpretation.

The deliberate choice for these often dull, everyday goods has never been more relevant in view of the current commercial context of Flemish archaeology, in which the assessment, an evaluation of scientific potential (Ervynck, Debruyne and Ribbens 2015, 9), lies at the basis of heritage policy. The lack of knowledge on early modern ceramics and the absence of a clear research framework makes that such assemblages will hardly be considered for further processing. It is my aim to illustrate the potential of archaeological research on this particular time period and material category. The study of ceramics on different sites will not only provide typochronological reference horizons for further analysis. Perhaps more importantly, it will also explore the attitudes of different social groups toward conflict, running as a leitmotiv throughout the early modern period.

Chapter 2 'Everything is social': Theories of everyday life

2.1 Introduction: routine, conflict and scale

Although we feel that we are free agents, we do the very same things, every single day. These 'habits', as referred to in the title of this dissertation, are not a passive reflection of the daily grind, but very much the opposite. As actively meaningful, the term makes explicit reference to Bourdieu's notion of *habitus*, rendering the potential of agency to the everyday objects around us. In this chapter, I will expand on the theoretical frameworks (of which Bourdieu's practice theory (1977) is but one) in which my research questions are rooted and which, in turn, shape the interpretations made below. I have opted to draw upon multiple models, as none of these are all-explaining.

The importance of routine in the study of social life has already been emphasised by Giddens (1984, 19). It is seen as *integral to both the continuity of the personality of the agent, and to the institutions of society, which are such only through their continued reproduction* (Giddens 1984, 60). The same author suggests that these *established modes of accustomed daily life* can best be understood by looking at a so-called 'critical situation', referring to an event which undermines the certitudes of everyday routine (Giddens 1984, 60-61). The Eighty Years' War should be regarded as such a critical situation, affecting all aspects of daily life. It follows that the study of ordinary objects used in this conflict should allow a better comprehension of social life in early modern Flanders.

In case of World War II prisoner camps, Giddens (1984, 63-64) notes that:

The disruption and the deliberately sustained attack upon the ordinary routines of life produce a high degree of anxiety, a 'stripping away' of the socialized responses associated with the security of the management of the body and a predictable framework of social life. Such an upsurge of anxiety is expressed in regressive modes of behaviour, attacking the foundation of the basic security system grounded in trust manifested towards others. Those who are ill-equipped to face these

pressures succumb and go under. Some are able to sustain a minimal sphere of control and self-esteem that allows them to survive for a longer period. But eventually, in most of the old prisoners at least, a process of 'resocialisation' takes place in which an attitude of trust (limited and highly ambivalent), involving identification with authority figures, is re-established. Such a sequence of heightened anxiety, regression, followed by a reconstruction of typical patterns of action, appears in a range of critical situations in otherwise very different contexts, such as responses to being under fire on the battlefield for prolonged periods of time, forced interrogation and torture in prisons and other conditions of extreme stress.

Although I do not wish to transpose the cruelties of World War II to the conflict of the Eighty Years' War, the different responses to conflict are of all time: habits are either maintained or renegotiated and ultimately transformed, in order to cope with the changing environment and assert new positions within the highly-volatile context of war.

Following Carroll (1999), I will use the community as scale of analysis. It are the habits of groups that are central to this thesis, rather than the social lives of individuals. This choice is reinforced by historical arguments. During much of the Eighty Years' War, the Low Countries retained a pluralistic nature. National sentiments were not reserved for a common fatherland but were used to bond together *family units, the inhabitants of a town, and individuals belonging to a particular ethnic community* (Duke 2009, 60). This observation renders the soldiers in Ostend, the Portuguese family in Steendorp, and the Poor Clares and town of Middelburg ideal case studies of the material response of different groups to war. Eventually, a Pan-Netherlands movement did emerge out of the protest to Spanish policy (Duke 2009, 50-51). However, out of the taboo on the opposition of princely authority and overstepping the bounds of acceptability, the material culture used in the creation of this subversive culture was ambiguous, conveying multiple meanings (Duke 2009, 137). How material culture functioned in the construction of such group identities and how the same objects could still have different meanings to different people, will be illustrated in the chapters below.

2.2 Objects and practice

With the adage *ollas ostentare* (to make a show of kitchen pots) Desiderius Erasmus (1466-1536) already expressed his belief in the ability of everyday objects to convey important messages (Baatsen, Blondé and De Groot 2014, 10). However, for objects to be attributed an active role in the constitution of social life, and not merely reflecting it, it was waiting

until the advent of the ‘Material-Cultural Turn’ of post-structuralism (Hicks and Beaudry 2010, 5).

Giddens’s theory of structuration (1984) bears close resemblance to the *Outline of a Theory of Practice* (1977) of Pierre Bourdieu, one of the most influential sociologists to be inscribed in this post-structuralist tradition. Bourdieu’s practice theory will therefore take up the lion’s share of this dissertation’s theoretical body. Although some aspects of this model are certainly problematic (see Thomson 2008, 78-80), practice theory has been good to think with, generating some of the key questions in this thesis concerning the role of material culture in the creation, maintenance and transformation of group identities during times of war. Several studies have pointed to the theory’s limitations (e.g. Sewel 1992; King 2000). Their main criticism lies with its deterministic aspect, as it would not allow enough room for change (Thomson 2008, 79). Some of this criticism is, however, unjust, as the potential for change and agency is inherent to the interplay of habitus, field and capital (Jones 1997, 89-90). With habitus, field and capital, the three main constituents of Bourdieu’s theory of practice have been named.

Bourdieu (1977, 72) defines habitus as:

[...] systems of durable, transposable *dispositions*, structured structures predisposed to function as structuring structures, that is, as principles of the generation and structuring of practices and representations which can be objectively “regulated” and “regular” without in any way being the product of obedience to rules, objectively adapted to their goals without presupposing a conscious aiming at ends or an express mastery of the operations necessary to attain them and, being all this, collectively orchestrated without being the product of the orchestrating action of a conductor.

In his typical dense style, Bourdieu touches upon the core of our everyday routine. The way we act is based on *assumptions about the predictable character, behaviour and attitudes of others* (Maton 2008, 50). There are, however, no explicit rules regulating this everyday practice. It is this *immanent law* (Bourdieu 1977, 81), which each of us acquired by education, that Bourdieu coined as habitus. As a structuring structure, habitus is dialectical in essence. It is structured by previous experiences and, simultaneously, shapes the present and future practices of both individuals and collectives (Bourdieu 1977, 90; Maton 2008, 51). The embodiment of these practices creates a common-sense world for agents who share similar past experiences, a world that is continuously reinforced by the expression of the implicit rules of which it is constituted (Bourdieu 1977, 80).

The historical component of habitus is stressed throughout Bourdieu’s theory of practice (e.g., *it is yesterday’s man who inevitably predominates in us* [Bourdieu 1977, 79]). A system of dispositions, rooted in the past, brings *continuity, familiarity and normality to a society* (Jervis 2014, 13), three crucial aspects longed for in the shaken, unstable times of

war. Material objects help to bring these past practices into the present and, as such, they contribute to our future *ways of acting, feeling, thinking and being* (Maton 2008, 52). That practice is strongly linked to material culture is illustrated by the 1567 letter of Claus Van Werveken, who migrated to Norwich, in which he asks his wife in Antwerp to bring a dough through *for there are none here*. She was furthermore instructed to buy *two little wooden dishes* to make butter, as all Flemings made their own (Atkin, Carter and Evans 1985, 201 as cited in; Jeffries 2001, 51). In the use of material culture, Van Werveken brought some familiarity into his new existence, belonging to a group of Flemings who shared common world views.

As it is phrased now, agents are captured within their habitus, with acquired dispositions to be continued in eternity. In itself, habitus limits social change and mobility, since the range of choices visible to us depends on our history (Maton 2008, 52). It is therefore, that habitus must always be seen in interaction with field and capital, as it introduces the possibility of agency and change. Field is often defined as a site where the game of life is played, with specific rules and boundaries (the immanent law that is habitus) that are not necessarily known to all players involved (Thomson 2008, 68). The positions of the players within that field, and thus their rate of success in playing the game, is dependent on different forms of capital (economic, cultural, social and symbolic). Economic capital refers to the financial assets available to the agent, cultural capital consists of the agent's preferences in taste, speech and forms of knowledge, social capital relates to the networks in which the agent is situated, and, finally, symbolic capital concerns the resources accessible to the agent, based on the recognition of his/her other types of capital (Thomson 2008, 69). Practices are thus not only determined by habitus, but also by the current circumstances (field) and one's position (capital) within that social arena (Maton 2008, 51). It seems that, following Bourdieu, practices can change after all when any of those three concepts alters.

However, a change in field does not automatically entail a change in habitus. Both can have varying degrees of mismatch and can even be completely out of synch (Maton 2008, 57, 59), a condition designated as the hysteresis-effect (Bourdieu 1977, 78). *Because dispositions are embodied, habitus can generate practices after the original conditions which shaped it are vanished* (Maton 2008, 59). War should be considered as a game changer, creating this mismatch. It set a new context and creates a new set of rules. The hysteresis-effect explains why some actors nevertheless continue to build on the same past experiences, e.g. the use of outdated material during the English Civil War (Askew 2013), or search for a sense of common belonging when losing one's footing. It is the merit of material culture that it can provide that feeling of grip, longed for in troublesome times.

The practice theory of Bourdieu shows that the different ways in which we act, feel and think, individually or in group, is socially conditioned. How material culture was used to bring about these differences and how the study of material culture allows to distinguish between different groups is furthered below.

2.3 Changing consumer preferences

Material culture can be consumed conspicuously (Veblen 1899), in public, or inconspicuously (Smith 2007), in the intimacy of the own home. The (in general) low cost and short use-life of ceramics in particular, make this material category ideal for defining and representing the ever-changing internal and external self. Both cannot be seen separate from each other. To quote Jenkins (2004, 25): *your external definition of me is an inexorable part of my internal definition of myself - even if I only reject or resist it*. The active role played by material culture in defining group identities is furthered in Bourdieu's *Distinction* (1996 [1984]).

In *Distinction*, Bourdieu seeks to understand how different groups distinguish themselves from one another, and how consumer preferences change over time. Taste is seen to be distributed in highly-patterned ways and correlates with the position of any agent in a given field. The consumer preferences of a certain group are always linked to those of others, with the dominant class defining what the aesthetic norm is (Dietler 2010, 211). This dominant taste is accepted as such, but is altered in lower classes by their differing habitus and lack of sufficient capital. *Lifestyles are thus the systematic products of habitus* (Bourdieu 1996 [1984], 172). It transforms the distribution of capital into a system where practices can be classified. In turn, these classifications make it possible to differentiate between groups, on the basis of their consumer preferences (Bourdieu 1996 [1984], 170, 172).

Consumer preferences are thus not just free choice, but are, to a certain extent, socially conditioned. The work of Jan de Vries allows to take this argument somewhat further. In the long 18th century, de Vries observes an *industrious revolution* (de Vries 1994; 2008). It is a process in which labour intensification in households resulted in the increase of both the supply of and demand for marketed goods (de Vries 1994, 249). A supplementary explanation for the changing consumption patterns is to be found in the global trade of luxury goods, which initiated a process of product innovation and industrialisation (Berg 2004, 141). Although de Vries mainly speaks of the 18th century, the basis for an *ever-multiplying world of goods, extending far down the social hierarchy*, is laid a century before (de Vries 1994, 254-255). In the 17th century, a 'New Luxury' emerged out of the urban society, as opposed to an 'Old Luxury' which was defined by court life. The latter consisted of high-quality goods for the elite, while the former had comfort and pleasure as two main characteristics and was available to the wider public (de Vries 2008, 44). With this 'New Luxury' comes the concept of breakability: *the gradual replacement of expensive, durable products possessing a high secondary market value by cheaper, less durable, more fashion-sensitive goods* (de Vries 2008, 129-130). As a result, de Vries argues that Dutch material culture was rather uniform in the late 17th century. Objects of status and comfort were understood as such across the social spectrum. The differentiation laid in the cost and quality of objects,

not in the form or types of objects (de Vries 2008, 57). The fact that households worked more, consumed more and consumed differently (de Vries 2008, 73) can be explained in terms of the above. Cheaper goods meant that everyone had easier access to the dominant taste. However, middle and lower classes did not just emulate the elite (cf. Veblen's conspicuous consumption). The wide variety of goods available *generated a multiplicity of "taste groups"* (de Vries 2008, 149), which used these fashionable goods as a new means to position themselves in the game (de Vries 2008, 148-149). Despite any uniformity in late 17th-century material culture, it would thus still be possible to discern different social groups.

With his *multiplicity of taste groups*, de Vries touches upon a final important aspect: objects do not mean the same things to every one of us. How meaning is dependent on the context in which the object is used, is dealt with in what follows.

2.4 Acting objects and different meanings

Although Bourdieu tried to move away from structuralism, his practice theory remains rather rigid. Ben Jervis rightly notes that, *whilst acknowledging that identities are formed and maintained through practice, we must be careful not to simply take practice as a replacement for objects in standing for identities*, as this would just be a more elaborate version of cultural-historical approaches (Jervis 2014, 71). It is possible to build some more fluidity into Bourdieu's system by looking at the ideas set forth in relational archaeology and by applying a biographical approach toward objects.

ANT (Actor-Network Theory) regards the social as a network of human and non-human actors, brought together through action (Latour 2005, 10; Jervis 2014, 20-21). Whereas with Bourdieu, the emphasis remained with human actors, objects are now also attributed the potential to produce agency, affecting courses of action (Jervis 2014, 30). This potential should be stressed, as meaning and agency are not inherent within people or things, but *emerge through, and are sustained by, particular relationships* between those two (Jervis 2014, 31). According to ANT, the social should thus be seen as a fluid web of made, dissolved and remade connections, *rather than a pre-determined stage on which action unfolds* (Jervis 2014, 23). Change follows from the fact that the social is inherently unstable. By bringing objects into new sets of relationships, their meaning is renegotiated and, in turn, *they affect the emergence of new relationships, understandings and conceptualisations of the world* (Jervis 2014, 25). The multiple and shifting meanings of objects recalls the biographical approach of Appadurai (1986) and Kopytoff (1986). Objects do not have an inherent value, but their value is determined by the context in which objects find themselves during a certain stage of their social life. However, in spite of changing meanings, the social is

durable to a certain degree. This durability flows from the durability of things, giving them the potential for associations to last. However, this durability must be *activated through continued interaction* (Jervis 2014, 26).

As the meaning of objects is no longer fixed, so too is the definition of groups and identities. Groups constantly need to be redefined in terms of *what they are, what they should be and what they have been* (Latour 2005, 31). A fixed list of groups is lost and replaced by groups that are continuously made and remade in relation to the material world. It are the traces left behind in this (re)creation of groups that will be studied here (Latour 2005, 34). Relating to one group or the other should also be seen as an ever on-going process (Latour 2005, 28). People relate themselves to others in a multi-faceted and fluid way, and use artefacts to do so (Jervis 2014, 83). It is in this coming together of people and things that identities come into being (Jervis 2014, 84).

2.5 From ceramic attributes to the everyday life

The above shows that *everything is social* (Hodder 2004, 36). The ordinary objects that shape our daily routines tell a great deal about the way in which we position ourselves in the world. Humans and objects are mutually constitutive, and stand in a dynamic relationship to one another. By producing and reproducing common schemes of perception, objects are both the medium and the result of a certain *chaîne opératoire*. Central to this enquiry is the question whether or not -under the pressure of warfare- changes occurred in this body of implicit knowledge, hence generating transformations in material culture.

The study of ceramics, as the ultimate ordinary object, helps in answering this question. As the way in which we use pots is socially conditioned, it follows that the detailed analysis of the attributes of which these pots are composed (fabric, form, and decoration) provides a better understanding of the *habitus* that shaped them. A change in any of those attributes may thus reflect how everyday routine was altered in order to deal with the troubles of war.

By applying this theoretical framework to the Eighty Years' War, it becomes possible to ascertain how different social groups symbolised their identity and advanced their status through the purchase, display, consumption, exchange and discard of everyday goods. However, in this age of transition, the meaning of material culture cannot be explained univocally. Objects can have multiple meanings, at different points in their social life. Therefore, the focus of this research will be on the total trajectory of material culture (from production to consumption), starting well before the war and ending

afterwards. This theoretical approach, combining both etic and emic analyses, allows to *go beyond the concrete data, grasping the more nebulous concept of culture* (Grassby 2005, 592).

Chapter 3 Methodology

3.1 Introduction

By studying material culture, it is possible to comprehend *what people hoped to accomplish through the production, consumption, collection, display or use of material goods* (Cochran and Beaudry 2006, 203). Grassby (2005, 592) makes the distinction between an etic and emic analysis of objects, respectively referring to the study of their objective attributes and their significance to those who used them. The understanding and interpretation of this material culture is more important than the mere identification, classification and description of the objects. However, in order to obtain such interpretations a thorough etic analysis remains indispensable (Cochran and Beaudry 2006, 191, 193). The importance of an etic analysis was already stressed in the theoretical framework above, where fabric, form and decoration are linked to the habitus that shapes these attributes and, in turn, is determined by them. The following chapter will therefore firstly consider the current state of research on early modern pottery. From there, tools will be developed that can subsequently be applied in the processing of ceramic assemblages.

3.2 Pottery studies in Flanders and beyond

This subchapter is partly published in:

Poulain M. 2013. Notes on the quantification of post-medieval pottery in the Low Countries, *Post-Medieval Archaeology* 47:1, 106-118.

Already in the late 1980s, Verhaeghe (1988a, 72) stated that there was a great need for systematic and detailed analysis of early modern ceramics in the Low Countries. Twenty-eight years later, his analysis remains relevant. The reason for this status quo concerning

early modern material culture partly stems from the overwhelming size of the excavated assemblages. As a consequence, little processing or publication has so far taken place. Moreover, the considerable importance of history and art history means that the period from the 16th century onward is often last on the list of archaeological priorities (Verhaeghe 1988b, 107; 1997a, 26). It follows that the quantity of regional pottery studies for the period remains small. In an attempt to make up the arrears, Flemish master dissertations are often based upon the processing of excavated material culture. However, these studies may not be of consistent quality. As a consequence progress has been limited (De Groote 2008a, 24).

The main relevant publications in Flanders have been written by Emeritus Professor Frans Verhaeghe, formerly of the VUB (the Flemish Free University of Brussels), and Dr Koen De Groote of the Flemish Heritage Institute (Verhaeghe 1988a; b; 1993; 1997a; De Groote 2008a). This demonstrates the extent to which research in Flanders is very personalised and bound to certain institutes. Nevertheless, in recent years, a certain change can be noted in the nature of archaeological research in the region. The relatively recent publications of assemblages from the cities of Aalst, Brussels, Middelburg, Petegem and Tongeren are particularly important (De Groote 1992; Wouters *et al.* 1994; De Poorter 1995; Van Eenhooge 1999; De Groote *et al.* 2004; De Clercq *et al.* 2007). For the future, the site of Aalst-Peperstraat (Bracke and Van Hove s.d.) bears much potential. As a first for Flanders, the finds from these kilns could inform us on the local production of redware ceramics.

From the studies cited above, some general trends can already be observed. Redware is the dominant ceramic category since the late 15th century onward, increasingly replacing the reduced greyware. Moreover, lead glaze is systematically applied, often covering the vessel in its entirety. This flows from the changing function of glazing, with its decorative aspects now making way for its functional qualities (facilitating the cleaning of pottery and preventing the fabric to soak up foodstuffs) (Verhaeghe 1988b, 108). Verhaeghe (1988b, 108) furthermore notes that this glazing would be of a higher quality, more homogeneous, shiny, and with a browner colour, likely resulting from an increased amount of manganese.

Within this dominance of redware pottery, a functional specialisation can be observed. Many new forms come on the scene, often derived from metal examples. However, for the vessels related to food preparation, the cooking pot, or *grape*, remains best represented (De Groote 2008a, 293, 294). Despite this increasing number of forms, regional differences fade out (Verhaeghe 1997a, 29-30; 1997b, 164). Whereas in the 16th and early 17th century thumbled feet with cooking pots can still be seen as a diagnostic feature for coastal Flanders (De Clercq *et al.* 2007, 8), later periods are characterised by the general base on footring or plain flat base (Verhaeghe 1988b, 109).

Not only the quantity and the functions of ceramics increased in the early modern household. Also new imports, such as maiolica, stoneware and whiteware, are distributed

across Northwestern Europe and take up an ever-more important part of the excavated finds. Stoneware will completely replace locally- or regionally-produced drinking vessels, with the *drinkuit* as the only exception (Verhaeghe 1997a, 29-30; De Groote 2008a, 294). Contrary to the redware products above, there has been a consistent growth in archaeological knowledge for these imported products. However, this knowledge mainly has an (art-)historical basis (Veeckman 1997, 113; Verhaeghe 1997b, 151; Gaimster 2009, 530), with simpler, undecorated ceramic forms barely mentioned in the literature. The work of Claire Dumortier on the maiolica production in Antwerp serves as the best example of the strong (art-)historical basis underlying our current knowledge (e.g. Dumortier 1986; 1988; 1999; 2000; 2002b).

Furthermore, any knowledge on socio-economic differentiation is lacking for Flanders. This partly stems from a continued focus on describing, cataloguing and categorising pottery as a mere passive component of the past, but also from a lack of interest in theoretical and methodological issues (Verhaeghe 1997a, 26). The absence of a university framework for early modern archaeology and the increasing commercial pressures on regional archaeology mean that both of the latter research fields are often considered a waste of time. This attitude is reflected in the limited number of regional contributions that have been made to either area (Verhaeghe 1993, 15; Courtney 2009, 169, 178).

Following on from the disregard for theory, the need to generate uniform analytical methodologies is also often passed over, and an anecdotal approach predominates in methodological discussion. This is reflected in the multitude of quantification and registration methods currently used in the region. Moreover, the method chosen for a specific study is rarely outlined in any detail in publications. The result is that the majority of pottery studies cannot be easily compared, leading to only very general interpretations (Verhaeghe 1988a, 67; De Groote 2008a, 443).

The limited progress of early modern pottery studies in Flanders contrasts to the situation in some of our neighbouring countries. Especially striking, is the difference with the present-day Netherlands, where the study of early modern ceramics has a long-standing tradition (e.g. Hoyneck van Papendrecht 1916). These diverging roads can probably be explained by the importance of the Golden Age to Dutch national history, whereas Flanders's most prosperous times are mainly associated with the late medieval period. Moreover, the attention paid to 17th-century ceramics flows from the large-scale import of kraak porcelain from 1602 onward and the renowned Delftware. The many ceramic vessels that were handed down and are still preserved in display cabinets across the Netherlands continue to confront Dutch households with this particular part of their heritage and explains the interest in these ware types. Although it can hardly be compared to Dutch maiolica and faience, red- and whiteware vessels have also received considerable thought. Several centres have produced these types of pottery on a supra-regional scale up until the 20th century. Their importance to Dutch economic history is similarly reflected in a number of publications, for example for Bergen op Zoom

(Groeneweg 1992) or Gouda (van der Meulen and Smeele 2012). Bearing in mind certain exceptions (e.g. Ostkamp 2004), the main focus of these studies lies with their physical properties, rather than with their interpretative possibilities. For a military environment, the finds recovered at the Bourtange fortress (Lenting, van Gangelen and van Westing 1993) is illustrative of this data-driven approach, limited to a mere description of finds. This observation characterises much of early modern pottery studies throughout Continental Europe. The references cited below are but some examples to frame the general context, not a complete overview.

German (or rather Rhenish) ceramics are relatively well-studied, although the art-historical approach is once again predominant (e.g. Reineking-von Bock 1986). Studies either focus on production sites (e.g. Hellebrandt 1967; Hähnel 1987; Unger 2007), ceramic categories – for Werra see Stephan (1981), for stoneware Gaimster (1997) –, or are of a more synthesising nature (e.g. Gaimster 2006). In Italy, beside the art-historical study of great *istoriato* pieces, a parallel archaeological analysis of early modern assemblages has taken off over the past two decades (Milanese 2007, 43). The publications of the *Crypta Balbi* excavations in Rome can serve as examples (Ricci and Venditelli 2013; 2014). A more detailed discussion of Italian ceramics will be provided below (see ‘3.9.5.2 Italian’). On the Iberian peninsula, early modern archaeology is also on the rise. For Portugal, studies have been made into the production of faience (e.g. Casimiro 2006; 2011; Casimiro, Varela Gomes and Varela Gomes 2015), fine redwares (e.g. de Vasconcellos 1921) and coarsewares (e.g. Gutiérrez 2007), or both of the latter (e.g. Casimiro 2014; Newstead 2014). Gutiérrez (2007) and Newstead (2014) both deal with Portuguese finds made in Britain. Newstead (2014, 169) links this presence of Portuguese pottery in Britain to cod fishing, trade and the English military activity in Portugal. Also for Spain, the main incentive for early modern pottery studies has come from abroad, in particular from its former colonies in America (e.g. Goggin 1968; Lister and Lister 1974). Studies on Spanish pottery moreover benefit from a large body of data coming from shipwrecks spread across the Atlantic Ocean (e.g. Marken 1994; Kingsley *et al.* 2014).

Within Anglophone countries, the study of the early modern period is well-established, with a great deal of the research focused on ceramics. Indeed, pottery is the most recurrent topic in material culture studies published in *Post-Medieval Archaeology*. This flows from the fact that the journal emerged out of the Post-Medieval Ceramics Research Group, in turn founded in 1964 (Beaudry and Mehler 2016, 109, 112). From rather descriptive reports of finds, research in these countries has evolved into *interpretive, theoretically-informed* studies (Beaudry and Mehler 2016, 114). Data-driven approaches can either stand alone, for example in the provenancing of English and Scottish wares (Chenery, Philips and Haggarty 2001; White 2012), or lie at the basis of broader interpretations. For example, Killock and Meddens (2005) frame the study of several assemblages within the context of booty and trade in 17th-century London, whereas Jeffries (2001) studies the pottery from Spitalfields, London, a district inhabited by

Huguenots. The latter article addresses how material culture can identify particular social groups, or, more specifically, how it fails to do so. Finally, and especially interesting for this thesis, is the study of ceramics found in a Civil War context. Recent work by Askew (2013) focusses on the excavated material culture in the Eccleshall, Sandal and Pontefract castles, investigating how the finds, and the structures in which they were consumed, were used by the non-elite occupants.

From the international perspective outlined above, it is clear that comparison to the ceramic record in our region holds much potential. However, equally clear is that any comparison is currently hindered by the myriad ways of processing ceramic assemblages in Flanders. In an attempt to counter this dominant anecdotal approach, a more general and uniform way of processing pottery is presented here. However, to do so is not possible without a critical discussion of several available methods of quantification, typology and registration and without highlighting the issues concerning terminology, consistency, value and meaning, all entailed in the application of these methods.

3.3 Terminology and consistency

Methodologies are essential in the eventual interpretation and communication of data retrieved from a ceramic assemblage (Whittaker, Caulkins and Kamp 1998, 129). However, for these results to be intercomparable, it is important to use the correct terms, and be consistent in doing so. A good methodology requires a well-developed and standardised terminology and consistency in its application. For medieval Flanders, a terminology has been developed by De Groote (2008a), building upon generally-accepted terms in Flanders and the German *Rahmenterminologie* of von Erdmann *et al.* (1984); (De Groote 2008a, 37). In this dissertation, De Groote's terminology was applied, together with its English translations. Where new terms needed to be added, it was opted to choose the most common words used in the early modern archaeology of the Low Countries.

The importance of a generally-accepted, adequate terminology is stressed, as the ability of methodologies to describe, communicate and interpret data is dependent on well-defined categories, forms and types (Whittaker, Caulkins and Kamp 1998, 131). Not everyone refers to the same thing, when using a certain term (von Erdmann *et al.* 1984, 417). Confusion and errors find their origin in this haze surrounding terminology. Moreover, this doubt hinders a free flow of information and, thus, the comparison between different sites (Verhaeghe 1988a, 70; Tuffreau-Libre 1998, 121). For example, it is of no use comparing quantified percentages, if the definition of the quantified ceramic categories is not similar (Desbat 1990, 132). Several causes lie at the basis of this discord. As a first, several early modern forms do not have a present-day equivalent, or Dutch

language fails at clearly naming specific ceramic parts. Moreover, early modern names for particular forms are either not handed down, or non-existent. Finally, the translation of terms and different linguistic feelings create additional terminological uncertainty (De Groot 2008a, 37). It can be stated that *a minimal terminological basis would simplify literature, avoid errors and allow comparison* (Tuffreau-Libre 1998, 122).

A next element that partly stands in relation to terminology, is that of consistency. Consistency refers to the degree in which the same results are obtained by different researchers using the same methodology (Whittaker, Caulkins and Kamp 1998, 135). Different studies have already demonstrated that consistently making the same observations is not straightforward (see for example Fish 1978; Beck and Jones 1989; and Whittaker, Caulkins and Kamp 1998). A well-developed terminology plays an important factor in obtaining comparable results, but does not solve all problems concerning consistency. Different causes lie at the basis of this variation (Fish 1978, 88; Beck and Jones 1989, 248; Whittaker, Caulkins and Kamp 1998, 136). An example is the difference in the perception between researchers, a difference which is partly culturally determined. Archaeological methods namely exist of a system of rules that is thought and passed on (Whittaker, Caulkins and Kamp 1998, 143). Also the *context, intentions and mentality of the researcher* play their part (De Groot 2008a, 32). Finally, it is important to know that the perception of a researcher can change over time. All of this makes that two persons do not necessarily observe the same thing when beholding an object (Beck and Jones 1989, 245). Even when an effort is made to track down these causes of bias, no objective criterion exists to tell how great the margin of error may be, before interpretative consequences come into being (Whittaker, Caulkins and Kamp 1998, 140). This discrepancy in results is probably inevitable. It is particularly important that it is recognised and acknowledged (Fish 1978, 88). Only a generally-accepted terminology, an adequate education and unbiased, controlled method allow to limit the margin of error to an acceptable level, and achieve high consistency, a *sine qua non* for decent archaeological research (Beck and Jones 1989, 246; Whittaker, Caulkins and Kamp 1998, 160).

3.4 Value and meaning

In this next part, the value and meaning of methodologies are briefly touched upon. To do so is necessary, as the degree to which archaeological classifications are in agreement with those of the past is hard to determine with certainty. It is plausible that a number of these subdivisions were also previously applied. De Groot (2008a, 32) mentions the example of the difference in function between a cooking pot and jug. However, the line

between two functions is not always as rigid, especially since forms could have had multiple uses (von Thier 1993, 228; Rice 1996, 140). A certain connection between form and function was likely always present. However, such a link is often complex to apprehend, as it is *mediated by cultural and historical factors* (Cumberpatch 1997, 128). Then again, certain other archaeological constructs, such as the distinction on the basis of rim type, were probably never made in the past (De Groote 2008a, 32).

In contrast to the 1960s and 1970s, there is now a consensus that archaeological classifications are, to a certain extent, arbitrary. However, this does not mean that methodologies must be thrown overboard. Some of these still succeed in describing, communicating and interpreting data in a relatively-adequate way (Whittaker, Caulkins and Kamp 1998, 130). The following paragraphs will therefore address the issues above with several of the already available methodologies, in order to select the best approach, starting with methods of quantification.

3.5 Quantification methods

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3.5.1 Introduction

Over the last few years, a lot of ink has been spilt on the subject of quantification. It is generally accepted as a positive contribution to the study of ceramics (Fletcher and Heyworth 1987, 35; Desbat 1990, 131). Quantification does not attempt to give an answer to the question of the amount of pottery that has ever existed, as it will never be known how representative the archaeological record is of actual usage in the past. Its importance lies rather in the insight gained from the relative proportions that exist between different categories, forms and types. These data allow for the comparison of different deposits with the same post-depositional processes (Blake and Davey 1983, 24; Orton, Tyers and Vince 1993, 166). Quantification therefore not only provides information about dating, the function for which ceramics are most frequently used, but also provides insight into the import, consumption and production of pottery, and the evolution of these categories over time (CATHMA 1990, 149; Desbat 1990, 131). Furthermore, quantification permits the archaeologist to examine the information pottery holds on depositional and post-depositional processes that have occurred on specific archaeological sites.

However, the use of quantified data presents specific challenges. First of all, one must be aware of the different taphonomic processes that are involved (see Harris 1989; Allison 1999); two assemblages with different taphonomic backgrounds cannot be simply compared without taking those differences into consideration. The minimum size that an assemblage should be in order to be usefully quantified is another problem. In general, it could be said to be worthwhile quantifying every deposit. Yet this does not take into account the statistical reliability of the data (Orton, Tyers and Vince 1993, 175). Furthermore, there is the problem of consistency, or the extent to which the same results are obtained by different researchers using the same methodology (Whittaker, Caulkins and Kamp 1998, 135). Several studies have indicated that the fact of consistent observations by different individuals is not something that can be taken for granted (see Fish 1978; Beck and Jones 1989; Whittaker, Caulkins and Kamp 1998). The existence of a well-developed terminology plays a key factor in obtaining consistency. However, there are other causes for descriptive variation (Fish 1978, 88; Beck and Jones 1989, 245; Whittaker, Caulkins and Kamp 1998, 136), including differences in perception between different researchers. These differences are partly culturally determined. Archaeological methods are composed of a system of rules that are learned and passed on (Whittaker, Caulkins and Kamp 1998, 143). Moreover, the context, intentions, mentality, knowledge and experience of the particular researcher also play their part (De Groote 2008a, 32).

Despite the acceptance of quantification as a positive contribution to the study of ceramics, there is no consensus within Flanders about which method should be used. A whole range of methods has already been developed. However, no one has yet undertaken an intensive comparison between these methods as they relate to the quantification of early modern assemblages in the Low Countries. The quantification of an 18th-century deposit from the abbey of Clairefontaine (Belgium) provides an insight into the relative merits of the different available systems and, as such, forms the basis for the methods selected in this thesis.

3.5.2 Methods

3.5.2.1 Sherd count

The first way of quantifying pottery to be described here is to count the number of fragments per ceramic category, preferably before vessel reconstruction. There are several advantages to this approach. It is one of the most simple, widespread and objective methods. In addition, it is fast to execute (Desbat 1990, 131). It requires no detailed understanding of typology and by taking every sherd into account, this method can supply data on the entirety of the assemblage (CATHMA 1990, 156; Raux 1998, 12). Counting fragments not only gives an insight into the relationships between the different categories and types in an assemblage, it also allows us, in combination with other

methods, to compare the 'brokenness' of one ceramic type with that of another. 'Brokenness' refers to the average number of sherds into which pots of a certain type break (Orton, Tyers and Vince 1993, 169). This average will vary according to the fabric, size and function of the vessels, and the (post-)depositional processes involved in the formation of the assemblage. This means that types with a high brokenness will be overrepresented in a sherd count compared to types with a low degree of fragmentation (Fletcher and Heyworth 1987, 36; Orton, Tyers and Vince 1993, 169). Here lies the main drawback of this method as the failure to take into consideration the degree of fragmentation creates a statistically incorrect picture of the ratios of distribution between different types (Raux 1998, 12). In other words, when two assemblages are compared, a higher number of fragments of a particular category in one deposit does not necessarily point to a higher number of vessels. Behind the apparent simplicity and objectivity of this approach, bias and complexity are hidden; knowledge about fragility, vessel size, pottery typology, and post-depositional processes appear to be necessary when using and interpreting the results obtained with this method (CATHMA 1990, 156; Orton, Tyers and Vince 1993, 169).

3.5.2.2 Weight

A second method of quantification is to measure the weight of the ceramic fragments in an assemblage (Desbat 1990, 131). This weighing should only take place when the sherds are completely dry. As with the counting of sherds, the objectivity and speed with which weight can be measured are the main advantages with this method. Furthermore, every fragment is involved in the quantification and fragmentation is of no importance when determining the weight; a complete vessel will weigh as much as a broken one (Blake and Davey 1983, 24; CATHMA 1990, 155). Consequently, comparing the proportions of ceramics within various deposits is less complicated than with sherd counts. But once again there are some disadvantages to this method. This time, the bias lies in the fact that the thick, heavy or large vessels will be overrepresented (Orton, Tyers and Vince 1993, 169). One way to neutralise the influence of vessel wall thickness is to calculate the adjusted weight. To this end, Hulthén (1974, 3) gives the following formula:

$$W_c / T_c = W_a$$

with W_c being the total weight of the ceramic category in grams, T_c the average wall thickness of the category in centimeters and W_a the adjusted weight in grams. Yet an important disadvantage must be noted: when calculating the adjusted weight, pottery with a high fabric density will be overrepresented (Fletcher and Heyworth 1987, 36). Furthermore, determining the average wall thickness requires significant time and effort. For each fragment the thickness has to be measured at various points. Fletcher and Hayworth (1987, 41) made a comparison between this adjusted weight and the number of

sherds. They stated that when the number of fragments in terms of percentage is higher or lower than the adjusted weight, the pottery is respectively broken into relatively many or few sherds. Concluding, despite the concreteness of the figures obtained by weighing, additional information on size, weight and thickness is needed for a correct interpretation of the data.

3.5.2.3 MNI (Minimum Number of Individuals)

Determining the minimum number of individuals, or MNI, is a third possible pottery quantification method. When using this approach, the archaeologist attempts to find out how many individual vessels have produced the fragments in an assemblage (Blake and Davey 1983, 24). The quantification preferably takes place after the grouping and mending of sherds. An MNI can involve a significant element of subjectivity (Fletcher and Heyworth 1987, 37). When determining the number of individuals, some researchers only base the count on rim fragments. Especially when processing a small assemblage, this method can generate statistically distorted data. In this case, a more accurate picture is obtained by calculating a qualitative MNI. Here, the number of individuals is based on the count of complete vessels and characteristic elements, such as rim, base, or potentially even firing techniques (Raveschot 1984, 35). In other words, when there are x rims for $(x+n)$ bases (with $n > 0$), there are $(x+n)$ individuals (Desbat 1990, 131).

Determining the exact minimum number of individuals is not always possible. Sometimes it can be very hard to decide whether or not two sherds belong to the same vessel. In these cases, an estimate of the exact number should be made (Orton, Tyers and Vince 1993, 172). Another downside is that brokenness once again plays an important role. Very fragmented categories of pottery have a greater chance of being represented in the data, and more individuals will be represented for these types of ceramics (Orton, Tyers and Vince 1993, 169). On the other hand, there will be categories, such as stoneware, that are potentially underrepresented in the count. The presence of decoration can also impact the count. For types of ceramic that are usually decorated, such as majolica, almost each individual can be recognised. This is not the case for undecorated ceramics. Crossfitting, the matching of fragments from the same vessel belonging to different deposits can also present problems. As Orton (2000, 75) notes, the MNI of two assemblages is not necessarily equal to the sum of their individual MNIs; there is a chance that, when combining two assemblages, the same vessel may be counted twice (Orton 2000, 75; De Groot 2008a, 30).

When dealing with non-diagnostic features of a certain category of pottery only, it may be possible to consider important sherds as an individual vessel, thereby including them in the MNI count (CATHMA 1990, 157; Raux 1998, 13). This procedure, which is referred to in French as *pondération*, must always be indicated as its use can potentially distort data. Plain redware sherds, for example, cannot be taken into account in *pondération* as there is

little to distinguish them from other individuals; categories that are characterised by a special fabric or decoration will therefore be overestimated. In addition, an excellent knowledge of typology is necessary. The greater the standardisation of form type, the harder it is to distinguish one individual from another (CATHMA 1990, 156); for example, the increasing standardisation of rim design during the early modern period makes it hard to distinguish whether two fragments are from different vessels. Finally, for a proper determination of an MNI, a sizeable sample is essential. Depending on the quality of excavation and method of artefact recovery, the number of individuals will be under- or overestimated (Hesnard 1998, 19). However, the relative speed and accuracy of determining the MNI support the use of this method, as will be discussed below.

A variant of the MNI is to determine the *maximum* number of individuals (mni). This method works from the assumption that a fragment that cannot physically be linked to another diagnostic element should be treated as another individual. This procedure inevitably leads to an overestimate of the actual number of individuals. A solution can be found in calculating the average of the minimum and maximum number. The fact that a count has to be performed twice makes this method comparatively time-consuming and inefficient (Orton, Tyers and Vince 1993, 172; Raux 1998, 13).

3.5.2.4 EVE (Estimated Vessel Equivalent)

The fourth method under consideration here is the Estimated Vessel Equivalent (EVE), originally designed for dealing with large assemblages of urban pottery in London. There are two ways of determining the EVE, neither of which requires the mending of sherds (Desbat 1990, 131). First, one can divide the total weight of sherds recovered from a certain type of pot by the weight of a single pot of that type. This method only applies to highly-standardised pottery. The second procedure makes use of a chart that allows the diameter of a fragment to be determined; it helps to determine how many degrees of (or percentage of) the original vessel rim each rim sherd represents. All these percentages are added up by category or form. Afterwards, the EVE can be calculated. It can be based on rims, bases or a combination of both (Symonds 1990, 137; Orton, Tyers and Vince 1993, 172). There are several arguments in favour of this method. Statistically, the EVE is very accurate. As when determining the weight, it is not affected by the brokenness of a particular type. The original rim circumference was 360°, no matter how large the degree of fragmentation may be (Desbat 1990, 131). Therefore, Orton, Tyers and Vince (1993, 171) described the method as the most reliable one, without any inherent bias. However, the EVE has one major disadvantage: when a fragment is too small or not really circular, determining its diameter is impossible (Chase 1985, 217; Orton, Tyers and Vince 1993, 172). Other drawbacks are the rather abstract figures with which one has to work and the fact that the method is almost exclusively used in the United Kingdom and Ireland. This creates problems in comparison with continental Europe, where the EVE is not very

widespread. Moreover, unlike the MNI, categories that are not represented in the form of rim or base fragments cannot be taken into account and *pondération* is not possible (Raux 1998, 14). Finally, determining the EVE can be very time-consuming.

The Estimated Vessel Equivalent can be combined with other methods. The combination of EVE and MNI gives an idea of the completeness of the diameters of the existing pots. A comparison with the number of sherds is also possible. This will provide a better insight into the fragmentation of the vessel. When the number of fragments is divided by the EVE, one gets a number that is related to the degree of refraction. The higher this number, the higher the degree of fragmentation. Finally, it is possible to combine the EVE with the weight. This puts the role of heavy-bodied ceramics into better assemblage perspective (Raux 1998, 14; Orton 2000, 76).

3.5.2.5 Surface and volume

The two final methods for quantifying pottery under consideration here consist of measuring the surface and volume of the fragments. Volume can be determined by measuring the amount of water that is displaced after submerging the ceramics in a container of known capacity (Blake and Davey 1983, 24). This method requires a major investment of time and effort. It makes the determination of volume an inefficient way of quantifying pottery as other, simpler methods allow us to solve the same archaeological questions (Chase 1985, 218). For example, Blake and Davey (1983, 24) state that determining sherd weight behaves in a similar manner to the determination of volume. Furthermore, due to their greater volume large pots will be overrepresented in comparison to smaller ones (Raveschot 1984, 35).

Determining the surface area of sherds appears to be equally problematic. In the literature, two ways to determine the size of fragments are commonly presented. The first groups the sherds together and then measures the surface occupied by the pieces. When the fragments are large enough to have a curvature, the application of this method is not possible (Chase 1985, 218). Hulthèn (1974, 2) formulated a second way of calculating the surface:

$$W / (T \times D) = Y$$

with W being the weight in grams, T the thickness in centimetres, D the density in grams per cubic centimetre and Y the surface in square centimetres. Each of these different parameters must therefore be determined for every fragment. This renders the whole process extremely time-consuming, and once again, large vessels will be overrepresented compared to smaller individuals (Raveschot 1984, 35). As with volume, this method would produce similar results as the determination of weight (Blake and Davey 1983, 24).

3.5.3 The case study of Clairefontaine

In this section, the methodological quantification framework outlined above is illustrated by means of an artificial assemblage of pottery compiled from several different deposits, and which is representative in the internal distributions of a real-life 18th-century assemblage of pottery from the abbey at Clairefontaine in southern Belgium. The assemblage was originally produced via fieldwork undertaken under the supervision of the late prof. dr. J. De Meulemeester, and financed by the *Direction de l'Archéologie du Service Public de Wallonie*. In this artificial assemblage, the original distributions between different categories of pottery (porcelain, stoneware, redware, whiteware, and tin-glazed and industrial ceramics) were maintained. Except for the calculation of surface and volume, every method described above was applied to the quantification of this assemblage. The raw data which were obtained are represented in Table 1 and Figure 9-Figure 12. This experiment made it possible to test the advantages and disadvantages of each procedure, to understand possible statistical bias in, and the investment of time and effort required for each different method of quantifying pottery.

Sherd count was the first method that was applied. The redware ceramics formed the largest sherd count group with 59 fragments from a total of 175 (33.71%). This dominance remains consistent throughout the use of the various methods. Counting sherds is simple and quick to perform; the counting itself required no interpretation by the researcher and is therefore arguably more objective than methods that do. However, the results obtained are influenced by the different degrees of fragmentation. A better understanding of the impact of the latter can only be obtained by a comparison with other methods.

Determining the assemblage weight also turns out to be a simple and objective method that is relatively fast to execute. When the results of both the sherd and weight quantifications are placed next to one another, some interesting observations can be made (Figure 9). Compared to the sherd count, the percentages for porcelain and industrial pottery are 7.6% and 8.9% lower, respectively, when calculated by weight. This can be explained by the relatively light weight of these fabrics. The average weight per fragment, which can be calculated by dividing the total weight by the number of sherds, is 13.1g for porcelain and 26.3g for industrial pottery. This contrasts sharply with an average of 77.2g per fragment of redware ceramics. Thus, the low weight of certain categories makes them underrepresented in weight counts compared to heavier types of pottery. Hulthén (1974, 3) proposed to eliminate this bias by calculating the adjusted weight. This is done by dividing the weight by the average wall thickness, determined by measuring the thickness of a few dozen points per ceramic type. When comparing the results of the weight and adjusted weight data, the percentage of porcelain and industrial pottery is higher (Figure 10), though still under the sherd count percentages. The higher percentage of both under the adjusted weight calculation is due to their thin bodies; these

are, on average, roughly 2mm for porcelain and 3mm for industrial pottery. The local, oxidised ceramics demonstrate the greatest difference between weight and adjusted weight, with the latter some 7.5% lower than with the initial weight count. An average vessel thickness of 6mm is the cause of this discrepancy. Hulthén's method is therefore quantifiably biased toward ceramics with a high fabric density, such as porcelain. Determining the adjusted weight mitigates the effects of one statistical bias, but simultaneously creates another. Finally, it should be noted that measuring the thickness of several points of ceramic sherds is time-consuming.

The assemblage was also used to generate a minimum number of individuals or MNI. The determination of individuals is relatively fast and, in contrast to the weight and sherd counts, provides data on the number of forms present in a particular deposit. However, there is always an element of subjectivity in the MNI, given it cannot always be decided with certainty whether two otherwise identical non-mending sherds come from the same vessel or not. The count was performed three times: the first based on rims, the second on bases and a final count took all the diagnostic elements into account. The results are shown in Figure 11. There appears to be a significant difference between the different methods; especially striking is the discrepancy for industrial pottery between counting by rim and counting by all diagnostic elements. Therefore, particularly in the case of small assemblages, determining the MNI solely on rims or bases may generate a distorted statistical picture. The maximum number of individuals (mni) is equal to the MNI in this artificial assemblage, which precludes the possibility of an overestimation of the number of vessels.

The last method used was that of the Estimated Vessel Equivalent. This method was employed not by calculating the total and individual weight of vessels but rather by calculating the surviving percentage of rims and bases. This revealed several disadvantages. Determining the diameter and degree of preservation is time-consuming, abstract and not always possible. In some cases, an estimate had to be made. As with the MNI, the estimate introduces an element of subjectivity into the quantification. Consequently, the claim that EVE is the single most reliable method statistically would not appear to be sustainable. Once more, in the case of small assemblages, one should not rely on a single diagnostic element (Figure 12). The main advantage of the EVE measurement is that brokenness is of no importance here. Again, some interesting comparisons can be made with other methods, such as MNI and sherd count. For example, dividing the number of fragments by the EVE allows us to say that the redware pottery (59 sherds; EVE 7.3) has an average of 8.1 sherds per vessel. It is therefore significantly more fragmented than the tin-glazed pottery (26 sherds; EVE 5.9), with an average of 4.4 sherds per vessel.

Table 1 The raw data obtained by quantifying the artificial Clairefontaine assemblage (*sherd thickness measured in cm for adjusted weight calculations).

Ware	sherds	%	weight (g)	%	adjusted weight*	%		
redware	59	33.7	4,555	43.3	7592	35.8		
porcelain	17	9.7	223	2.1	1115	5.3		
tin-glazed	26	14.9	1,824	17.3	3648	17.2		
whiteware	17	9.7	1,219	11.6	2438	11.5		
stoneware	28	16.0	1,953	18.6	3906	18.4		
industrial	28	16.0	745	7.1	2483	11.7		
total	175	100	10,519	100	21182	100		
ware	MNI/rims	%	MNI/bases	%	MNI	%	mni	%
redware	8	27.6	10	32.3	11	28.2	11	28.2
porcelain	5	17.2	6	19.4	6	15.4	6	15.4
tin-glazed	5	17.2	5	16.1	6	15.4	6	15.4
whiteware	3	10.3	2	6.5	3	7.7	3	7.7
stoneware	4	13.8	2	6.5	4	10.3	4	10.3
industrial	4	13.8	6	19.4	9	23.1	9	23.1
total	29	100	31	100	39	100	39	100
ware	EVE/rims	%	EVE/bases	%	EVE	%		
redware	5.7	26.8	6.9	27.4	7.3	24.6		
porcelain	2.6	12.2	4.7	18.7	4.8	16.2		
tin-glazed	4.1	19.2	4.9	19.4	5.9	19.9		
whiteware	2.2	10.3	2.0	7.9	2.3	7.7		
stoneware	3.3	15.5	2.0	7.9	3.25	10.9		
industrial	3.4	16.0	4.7	18.7	6.15	20.7		
total	21.3	100	25.2	100	29.7	100		

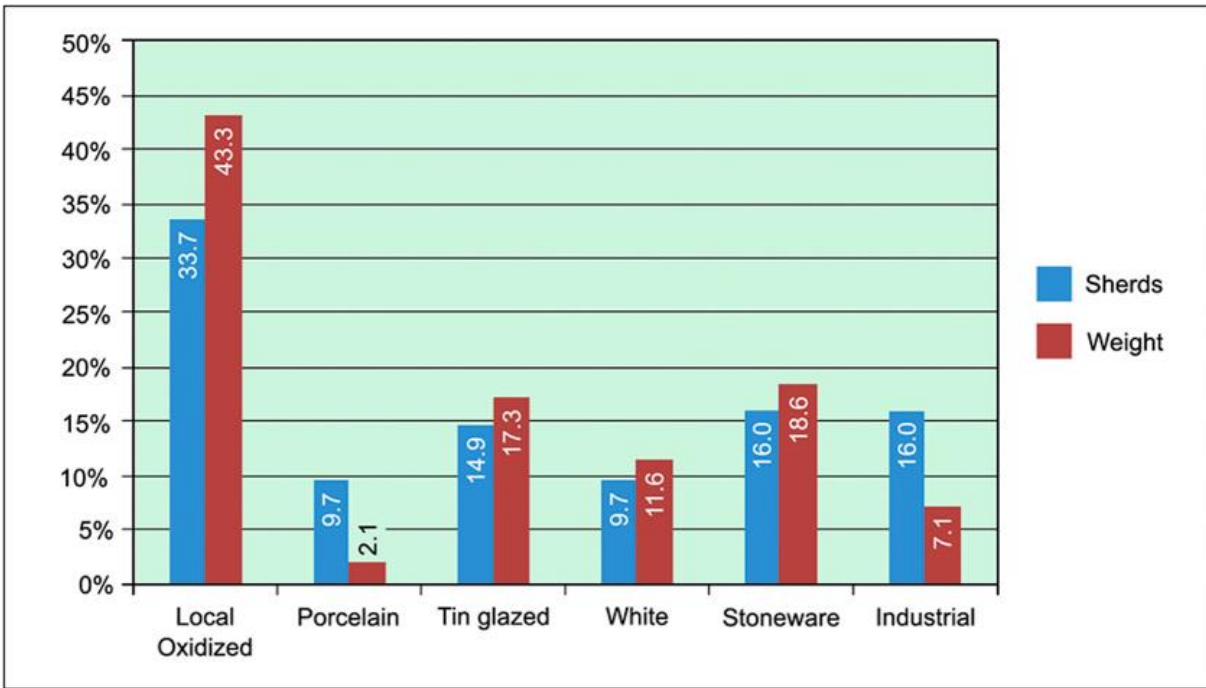


Figure 9 Clairefontaine: a comparison between sherd count and weight.

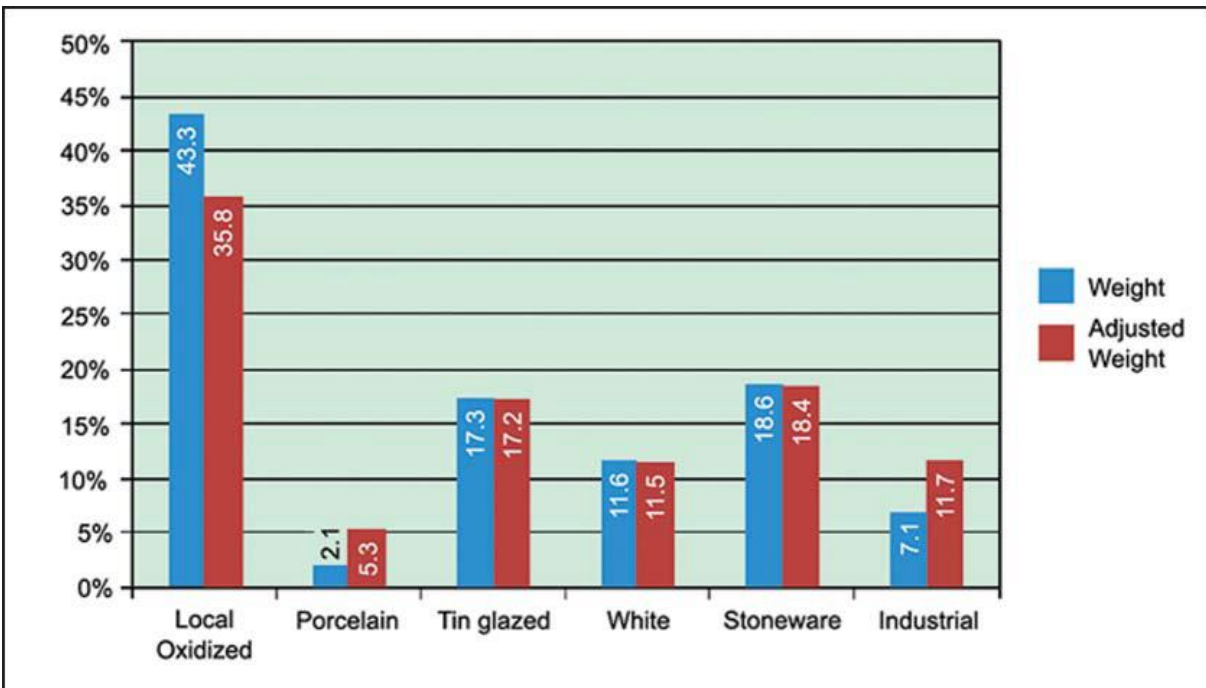


Figure 10 Clairefontaine: a comparison between weight and adjusted weight.

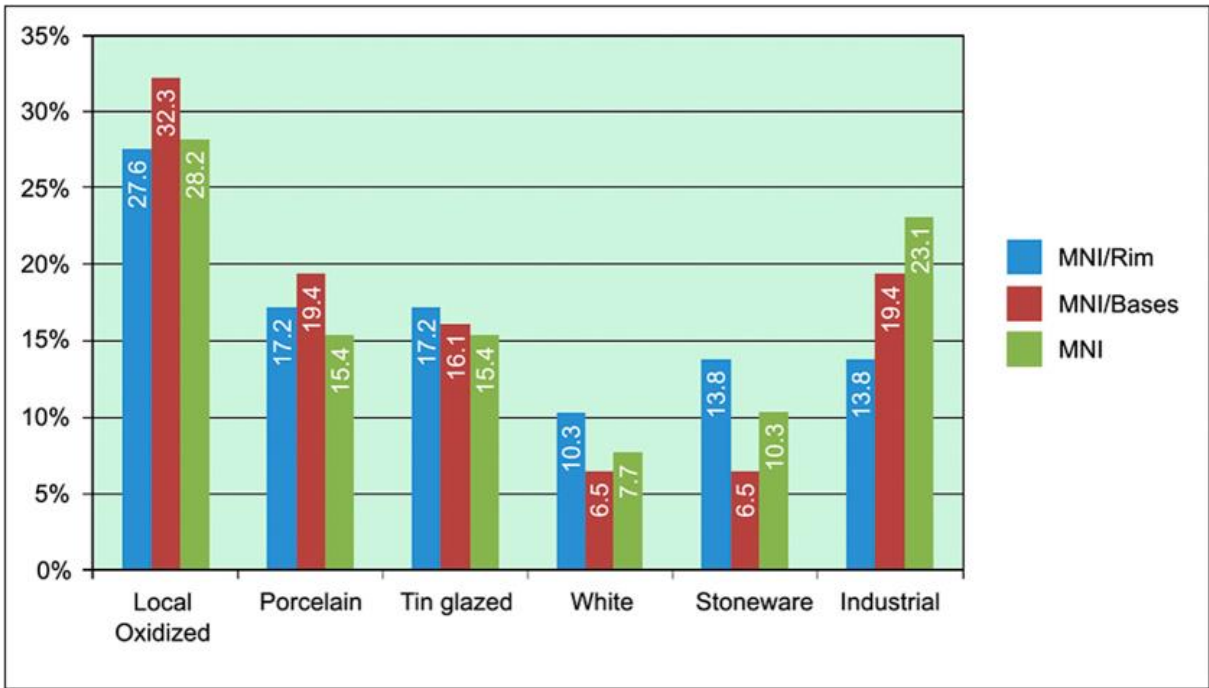


Figure 11 Clairefontaine: a comparison between the MNI based on rims, bases or all diagnostic elements.

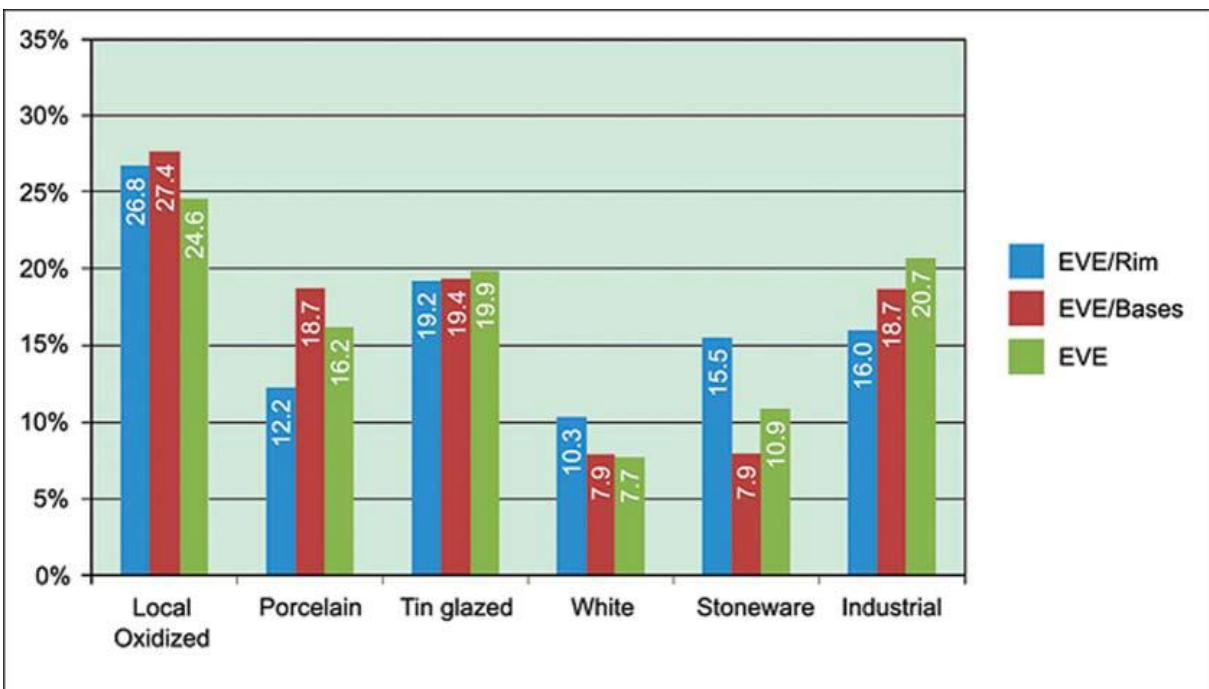


Figure 12 Clairefontaine: a comparison between the EVEs based on rims, bases or both in combination.

3.5.4 Conclusion

The dominance of the redware pottery in the assemblage remains consistent regardless of the quantification method used. However, the *percentage* of redware pottery varies

considerably depending on the quantification method. The same applies to the other ceramic categories. It is not always clear whether these results are merely the result of the counting method or if they are influenced by the small number of sherds in the Clairefontaine assemblage. A similar study on a large assemblage is necessary to more thoroughly test these conclusions. However, one can already conclude that there is no universal best answer to the question of how to quantify. Archaeology is not an exact science. A universal method unanimously recognised as the single best means of quantification will likely never exist (Hesnard 1998, 20). The best solution perhaps lies in the combination of different methods. This combination allows the unveiling of certain patterns and forms of bias (Orton 2000, 75). The use of a common terminology and an agreed protocol appears to be more important for the discipline in the Low Countries than the choice for a single method of quantifying pottery (Arcelin and Tuffreau-Libre 1998a, 9; Raux 1998, 11).

For a quantification to be statistically useful, there are some conditions that need to be met. The combination of several methods is probably the most important one. For early modern artefact studies from the Low Countries to be useful for more detailed comparative analysis, agreement on the basic minimum procedures for quantification is nonetheless required (Symonds and Haynes 2007, 67). Counting the number of fragments and calculating the number of individuals were set forth by Arcelin and Tuffreau-Libre (1998b, VI) as minimum standards. The present study concurs with this conclusion. Based on the practical application of the methodological framework above, the ratio between time investment and results is optimal with a combination of a sherd count and rim-based MNI. Moreover, both methods are reasonably accurate and, most of all, user-friendly for all types of research and sites. Sherd count and a rim-based MNI are therefore the methods used in the analysis below. It should be stressed that two similar rim fragments that could not physically be linked together were consistently counted as separate individuals.

Other methods could possibly be used as supplementary. For example, British archaeologists often find the EVE useful as a means for rapidly assessing form distributions. But whatever the method used, the archaeologist has a duty to describe how data was generated. It is crucial that the margin of error in these calculations remains clearly indicated (Raux 1998, 12). When publishing the results, it is also necessary that the methods by which they were derived are listed. Finally, because percentages are relative, the total size of the raw data must be specified (Hesnard 1998, 20).

Quantification is not just counting. It is a complex issue that is affected by research questions and requires a detailed knowledge of pottery fabrics and forms. In addition, an insight into the different causes of bias, such as the degree of fragmentation or methods of excavation and artefact recovery, is necessary (Chase 1985, 217-218; Raux 1998, 14). As Desbat (1990, 132) suggests, *les méthodes de quantification ne peuvent donner qu'une vision déformée d'une réalité que nous ignorons*. Despite this 'deformed vision', and despite the fact

that early modern archaeology is still building strong foundations in the Low Countries, quantification remains an essential part of archaeological research for the analysis of early modern ceramics in the region.

3.6 Typological systems

3.6.1 Importance

Adams (1988, 43) defines a typology as *a particular kind of classification, made for the purpose of sorting entities in mutually exclusive categories*. Such a category is formed by a group of diagnostic characteristics, by which it distinguishes itself from others categories or types (Adams 1988). Which diagnostic elements are used to group objects, is dependent on the method chosen. A good typology is not a mere collection of types, but should form a coherent and meaningful whole (Adams 1988). As such, typologies can serve multiple goals. For example, they are used as a point of departure for the description, classification and comparison of ceramics. If every sherd would be treated as a unique item, the quantity of data would hinder any clear view on archaeological assemblages. Typologies furthermore contribute to the making of meaningful interpretations, the recognition of patterns and are of use in dating pottery (Adams 1988, 51; Orton, Tyers and Vince 1993, 152). When drawing up a typology, a certain standardisation of the past ceramic production is assumed. However, variation can occur by all kinds of factors, from shaping, drying and firing pottery, to the eventual drawing by an archaeologist. The line between this natural variation and a new type is vague, and consequently hard to draw (Van Hiel 2006, 81-82; De Groote 2008a, 37). The different available typological methods deal with this issue in equally-different ways.

3.6.2 Methods

A wide variety of typological methods came into being in the course of time. As the study of medieval ceramics in Flanders longtime lacked in its own method (De Groote 2008a, 29) and commercial archaeology is sometimes characterised by a foreign (mainly Dutch) influence, archaeologists have appealed to, and still call upon different systems from abroad. The following paragraphs address the advantages and disadvantages of the most influential methods in Flanders.

3.6.2.1 Bruijn's ABCD

A first method was developed by Anton Bruijn in the 1970s. Bruijn (1979, 47) states that there are always four different kinds of features to a ceramic pot, indicated as A-, B-, C- and D-characteristics. Each of these features provides information on a particular aspect of pottery.

A-characteristics are formed by the function of the object and would thus be related to the ratios of the pot (Bruijn 1979, 47). These features only change when the function of the object alters. They are not subject to time and are therefore designated as timeless. B-characteristics, then again, deal with the circumstances under which the function of a pot was performed. As long as these circumstances stay the same, these features remain unaltered. They are therefore labeled as limitedly determined by time. Where A-characteristics stood into relation to ratios, B-characteristics shaped the form of an object. C-characteristics are subsequently determined by different production and decoration techniques. They can be applied to all types of pottery, irrespective of function or form. The combination of these features in an object is tied to a certain place and period. Moreover, the degree to which C-characteristics occur, can be used as an indicator of status. Finally, D-characteristics are diagnostic for a particular potter's workshop, and thus allow the pot to be provenanced (Bruijn 1979, 48).

There are some limits to this method, which are rooted in the basis of its system: the A-, B-, C-, and D-characteristics. It makes that Bruijn's model is only seldom put into practice (Clevis 2002, 219). The classification system, as a structuring principle, is not easily applicable, and only possible for standardised material from the same centre (e.g. Bruijn, Janssen and Hoffman-Klerkx 1992, 103 et passim). Certainly for pots of an older date, which have a considerable degree of variation, the method is infeasible (Bruijn, Janssen and Hoffman-Klerkx 1992, 19; De Groote 2008a, 35).

A crucial problem is situated on the level of the A-characteristics. As has been mentioned above (see '3.4 Value and meaning'), the function of a vessel is not always univocally identifiable (Bruijn 1979, 53). Moreover, where Bruijn makes a distinction in function between certain forms (e.g. cooking pots and pans) this difference is not always reflected in their ratios (Clevis 2002, 219). Finally, Bruijn solely based his model on locally-produced, 15th-century material. The introduction of new ceramic categories in early modern times, makes it impossible to hold on to this method (Clevis 2002, 219-220), as these new forms and categories were produced according to different ratios.

Concluding, the typological system of Bruijn is not usable for the material studied in this dissertation. However, its value cannot be underestimated. By systematically studying ceramics in his 1979 publication, Anton Bruijn formed the basis on which the next methods were built (De Groote 2008a, 35).

3.6.2.2 Ratios (Hemmy Clevis)

One of these methods was developed by Hemmy Clevis, and is rather mathematical in nature. Clevis tried to divide ceramics according to their ratios. By measuring three different parameters, and plotting these onto a graph, it would be possible to recognise different forms and types (Clevis 1992, 55). For bowls, he came up with the following formula (Clevis 1995, 75; 2002, 220):

$$\emptyset \text{ Base} / (\emptyset \text{ Rim} + \emptyset \text{ Base} + \text{Height}) > 0,815$$

This formula captures this method's main weakness. The height, the diameter of the base and that of the rim, are not always deductible from a single sherd. Archaeologically-complete vessels are thus always needed to determine the type. Clevis himself already noted that the measurements of ratios were not workable, as it did not always yield positive results. The ever-shifting shape of ceramics makes that the formulas are limited in time (De Groote 2008a, 36). Moreover, it is not possible to distinguish each form type in the graph as a different cluster (Clevis 2002, 220). As with Bruijn, this method failed to gain approval.

3.6.2.3 Deventer system

The Classification System for Late- and Post-Medieval Ceramics and Glass (Bitter, Ostkamp and Jaspers 2012)(also known as the Deventer-system) is much more prevalent than the two methods above. It was started up in Deventer, hence its nickname, in 1989 and has been considerably developed since then. Hemmy Clevis, Jaap Kottman and Jan Thijssen laid at the basis of this method. It is, however, currently managed by the SPA (Stichting Promotie Archeologie). In this system, each type is designated with a code that consists of the abbreviation of the fabric, the three first letters of the form and a unique type number (Van Hiel 2006, 78). The information concerning this type is bundled with the help of the following nine points:

- (1) Inventory number of the object (a) and its context, plus the date of this assemblage (b)
- (2) Type code (fabric-form-type number)
- (3) Date of the object
- (4) Dimensions (rim diameter, height and base diameter)(a) and description of the type (b)
- (5) Fabric (a), surface treatment (b), decoration (c) and other (d)
- (6) Base (a), handles (b) and completeness (c)
- (7) Function and name (cf. those mentioned in the Deventer-system, historical name if functional)
- (8) Provenance
- (9) Literature on identical objects

An exact definition of a type is, however, not provided. It is supposed that the line between different types can be determined on the basis of the drawings and photographs provided (Van Hiel 2006, 80). It is a system with an open ending. When the variation between an object and the already-existing types is too large, a new type number is attributed. The attribution of new type numbers is solely reserved for the redaction of the Deventer-system, preventing double type numbers (Bartels 1997, 498; Van Hiel 2006, 81).

Some of the obvious advantages are the concise type description, according to the nine points above, and the standardisation of types, allowing to compare, communicate and (re)interpret data. On that basis, a typochronology can subsequently be compiled (Van Hiel 2006, 81). As understandings change, alterations to the system can easily be made, thanks to its open ending (Clevis, Kottman and Thijssen s.d., 99). There are, however, some considerable downsides to this system, as it currently exists. As a first, the Deventer-system does not take into account details in the design, such as rim types. As local or regional traits can be obscured, provenancing and narrowly dating pots becomes rather problematic (Van Hiel 2006, 82; De Groote 2008a, 29). Although it is of a lesser concern to this study, early handmade pottery has no place in this system. The system's simplification does not allow much space for variation. Moreover, the lack of detail entails that only archaeologically-complete vessels can easily be classified. Smaller, nonetheless valuable, fragments cannot be taken into account if the system is rigidly followed (De Groote 2008a, 29). As such, it can reduce the processing of ceramics to a presentation of the most beautiful examples, a minority in archaeological assemblages. The possibility to add new types, next to an advantage, also forms a significant drawback. *The linear structure makes that a well-reasoned typology is not forthcoming* (De Groote 2008a, 29). Moreover, the value of these additions is related to the qualities and professionalism of the archaeologist creating them (Clevis, Kottman and Thijssen s.d., 99). Variations can either be lumped together under a single type, or can each be assigned a new type number. Regional differences can thus rather be the consequence of these multiple attitudes toward proposing new types, than the reflection of a historical reality. Furthermore, the lack of explicit definitions sometimes makes it difficult to assign vessels to a specific form or type. Other methods, such as Clevis's ratios were proposed to counter this problem (Clevis, Kottman and Thijssen s.d., 99), but were not successful in doing so (see '3.6.2.2 Ratios (Hemmy Clevis)'). Another downside, is that several of the names used in the Deventer-system are unfamiliar to Flemish archaeology. The introduction of new terms would only crank up the current terminological confusion (Van Hiel 2006, 82).

In conclusion, although the method has proven its merits in processing well-preserved, standardised early modern assemblages, the intensive simplification of types renders it hard to discern regional variations and specify narrow dates. By contrast, the following method, developed by Koen De Groote, takes this regional variation as a point of departure.

3.6.2.4 Koen De Grootte

The structure of Koen De Grootte's system (2008a) is partly built on what was previously developed by von Erdmann *et al.* (1984), as this *Rahmenterminologie* was specifically developed for medieval ceramics, with its own particular problems and research questions, and because German ceramics resemble those in Flanders both in technique as in design. However, multiple alterations were made (De Grootte 2008a, 29).

Ceramics are first divided into different explicitly-defined form categories, that are the sum of a series of determining morphological characteristics (De Grootte 2008a, 35). These forms were designated as neutral as possible and suggest no function, with exception of those cases where form and function coincide. Within these form categories, a further distinction is made in form types, which come into being through variations on that series of morphological characteristics (De Grootte 2008a, 35-36). Examples of such variations are changing ratios and design of rim, body, base and handle (De Grootte 2008a, 112). In contrast to the Deventer-system, this method does pay attention to details in shape. A rim typology was drawn up for most form categories, excluding those where only one rim type is known, or where the rim type is not a determining morphological element. Problematic is that not all form categories can be distinguished on the basis of their rim types. Where this is the case, forms are grouped under a common denominator (De Grootte 2008a, 36). Rim types are presented independent of their fabrics, and are accompanied by a definition where the basic design, finishing and position to the collar is stated (De Grootte 2008a, 36). Despite these definitions, De Grootte (2008a, 36) acknowledges that *subjective elements continue to play a role in the construction of this rim typology*. Each type is therefore only but an example (De Grootte 2008a, 37).

The great plus of this method, is that it allows to study fragmented, locally-produced pieces of pottery in detail. This attention to detail may, however, also be considered as its greatest drawback. Compiling a rim typology for a particular region proves to be a very labour-intensive and time-consuming process, and has thus far only happened for the region surrounding the city of Oudenaarde. Especially for the early modern period, with its large assemblages and increasing standardisation in rim types, it could be questioned whether a rim typology is worth the investment of time and money.

3.6.3 Finding a middle ground

With the advantages and disadvantages of the existing systems stated, it is now attempted to find a middle ground, allowing to document early modern ceramics in an adequate, yet time-efficient way. The proposed system is largely indebted to De Grootte (2008a), however adapted to cope with the specificities of large assemblages of increasingly-standardised pottery in the current commercial context. For example, in search of

regional and chronological variation, I will invest in dimensions and decoration, rather than in a profound analysis of rim types or fabrics.

Sherds are first grouped into broad ceramic categories (see '3.9 Fabrics, provenance and chronological framework'). For most of these categories examples are given of the fabrics of which they are composed. I have opted not to provide an exhaustive account of all fabrics encountered. The use and mixing of refined clays (in some cases without any tempering) and the large-scale trade in this commodity, makes the mere visual analysis of fabrics less relevant in comparison to the medieval period. Information on dating and provenance is more often enclosed within the form type and decoration, rather than in the composition of the clay. Only for those categories where fabrics do carry additional information, explicit definitions are stated.

Once grouped into ceramic categories, sherds are divided into form categories, of which the definitions follow those of De Groote (2008a). In case where new form categories were encountered, I have adopted the designation most frequently used in international literature. As a result, the name for a certain form can coincide with an assumed function. The best example is undoubtedly that of the olive jar. Its multiple functions are stressed throughout this dissertation.

Finally, within these different form categories, form types are defined. In contrast to De Groote (2008a), these definitions are not related to a rim typology. However, in an attempt to identify matching fragments, rim types were nevertheless recorded in the registration database (see '3.7 Registration'). Whilst acknowledging that certain rim types are indeed specific of a certain date and production centre (e.g. the heavily-undercut rims of Bergen op Zoom), most rims can no longer be identified as a diagnostic feature for chronology and provenance. Increasing standardisation, migrating potters and mutual influences result in a range of rim types that differ only little over time and region. Attention to rims is thus retained, but not formalised in the form of an explicit rim typology.

We do follow De Groote (2008a, 112) in that regionality and chronological evolution is to be found in the combination of ratios, decoration and morphological traits (for example, cooking pots with thumbed feet will seem to be typical of 16th-century coastal Flanders). In my opinion, ratios are less susceptible to the process of standardisation. As dimensions are moreover independent of decoration and can sometimes even be determined for vessels that are less well preserved, they are seen as one of the main determinants for provenance and chronology. It explains why ratios are often explicitly stated in the text below. Future comparison of these ratios with those in other regional studies holds much promise.

3.7 Registration

The registration of finds was based on the fields defined by De Groote (2008a, 28), but was adjusted to the specificities of early modern pottery. The most significant difference is, however, situated on the scale of registration. Whereas De Groote (2008a, 27) opted to document assemblages on the level of the individual sherd, I have grouped non-diagnostic sherds with the same characteristics under a single record. The nature of early modern assemblages, with large amounts of increasingly-standardised pottery, and the current commercial context of Flemish archaeology, in which the creation of thousands identical records is untenable, justify this approach.

- Assemblage: the code of the assemblage in which the (group) of sherd(s) was/were found
- Code: individual code assigned to each sherd or group of sherds, based on the ceramic category, form and a serial number
- Dating from/to: in years, based on the characteristics of the vessel to which the sherd(s) belong(s)
- Ceramic category: abbreviation of the ceramic category (e.g. TIN for tin-glazed)
- Fabric: number joined to another sheet defining different fabrics
- Provenance: either local/regional (L), or import (I), where possible specified
- Form: name of the form, as used throughout this thesis
- MNI: rim-based minimum number of individuals
- Sherds: number of sherds
- Dimensions: rim diameter/height (only if archaeologically complete)/base diameter, all in centimetre
- Fragment: rim/base/handle/body/archaeologically complete/complete
- Definition of type, using codes defined by De Groote (2008a, 28)
 - Rim type
 - Collar type
 - Base type
 - Handle type
 - Spout type
 - Feet type (divided into tripod bases and thumbed feet)
- Glazing
 - Location: internally, externally, or fully covering
 - Colour: subjective description
 - Type: lead, tin, salt or feldspar glaze
- Use marks: soot, residue, wear marks, ...
- Decorations: sgraffito, slip, painting, ...

- Finger imprints: yes/no, location
- Remarks: other remarks concerning this record (changes of code, ...)
- Drawing: reference to drawing
- Photograph: yes/no
- Box: number of the box in which the sherd/sherds are stored

3.8 Spatial analysis

For the spatial analysis of ceramics, in particular for the site of Middelburg (see ‘4.3 Moat, and minor assemblages on upper and lower court’) and the Saint-Isabella fort (see ‘6.7 Spatial analysis’), I have related the database above to a GIS (Geographical Information System). The software used was ArcGIS 10.3. Projections were made according to the Belge Lambert 1972 coordinate system.

3.9 Fabrics, provenance and chronological framework

Although a thorough fabric study does not lie at the basis of this ceramic analysis, the following paragraphs will briefly discuss the ceramic categories that were encountered in processing the assemblages, as they, together with the fabrics of which they are composed, give a first understanding on the possible date and provenance of a vessel. Moreover, it is hoped that, through the explicit definition of certain fabrics that are identified as a first in Flanders, other examples will soon follow.

3.9.1 Greyware

Several of the early modern assemblages discussed below are composed of a certain amount of greyware, fired under reduced conditions. A single fabric was identified, characterised by the dense, natural presence of fine and sandy particles. Angular quartz and iron oxides may also be present. Its hardness is variable and colours range from grey to brown with a well-defined black core (Figure 13).

The presence of greyware in these assemblage stands in contrast to the west- and mid-Netherlands, but also to Flanders’s large cities, where the ceramic category seems to have

been completely replaced by redware since the mid-15th century (De Poorter 1995, 166). Sixteenth-century greyware therefore seems to imply local production. For the site of Middelburg, a possible provenance should be sought on the Oedelem-Zomergem cuesta. The geology of this cuesta consists of *Pleistocene deposit on a tertiary Eocene substrate of marine sediments*. The thickness of these Quaternary deposits is, however, limited. As a result, tertiary clays can be found at shallow depths or can even crop out locally (Ampe *et al.* 1995, 16).

Several kilns have already been excavated on this cuesta, for example at Oedelem-Drie Koningen, where ceramics date the structure to the late 12th and early 13th century (Ampe *et al.* 1995, 111-113). Other evidence for a ceramic industry can be found at Oostwinkel-Diepenbeek, where the presence of a tertiary substrate at a depth of 30-40cm explains 13th-century potters' activity (De Clercq *et al.* 2001, 186), or at the site of Kleit-Baaiensedeweg, where wasters were dated to the 12th century (De Groote *et al.* 2009, 9).

Although early modern kilns on this cuesta remain forthcoming, the visual resemblances between the medieval fabrics from the sites above with the greyware sherds in this thesis, could suggest that the medieval pottery production on the cuesta continued well into the 16th century.



Figure 13 Greyware fabric.

3.9.2 Redware

3.9.2.1 Local/regional

The dominant redware fabric of a local or regional origin is hard and dense. The texture of the clay is characterised by the natural presence of fine, rounded and sandy particles and angular quartz. Larger inclusions, such as pottery grit, tertiary pebbles and mica, may occur. Colours range from brown, brown-red to orange-red, with the possibility of a

reduced, grey core (Figure 14:1). Only flowerpots (Figure 14:2) and bird pots (Figure 14:3) differ from this pattern, in that they are generally buff-coloured, with the possibility of a grey core.

Although redware production in Flanders remains ill-known, with currently only one kiln site excavated (Bracke and Van Hove s.d.), this production must, in my opinion have been of a considerable scale. Certainly for the undecorated vessels, there are only little resemblances to the forms depicted in the Dutch Deventer system. It is yet to be seen whether this observation flows from the system's design, or from the fact that there continued to be a large-scale redware production in Flanders. The recent excavations in Aalst-Peperstraat (Bracke and Van Hove s.d.) suggest that this is indeed the case.

It cannot be denied, however, that large numbers of pottery were imported from the present-day Netherlands. As locally-produced and imported fabrics can generally not be distinguished, they are discussed together below. That regional differences seem to have dissolved during the Eighty Years' War was already observed by Bitter (1993, 98). Bitter relates this observation to *large-scale migrations caused by religious prosecutions, competition with newly imported wares from the Mediterranean and the Far East, changing commercial systems with larger-scale production and changing demands from an increasingly heterogeneous group of consumers, differing in wealth and lifestyles.*

A redware category that is generally associated with Dutch import are slipwares. Contrary to many of the other redware vessels, these decorated wares can be rather narrowly dated. Although the height of this slip-decorated production can be placed after 1620, when Werra imports diminished (see '3.9.7 Werra')(Ostkamp and Venhuis 2009, 20), the application of white slip decorations on pottery dates back to the later 16th century. After 1650, slip-decorated wares are beyond their prime, with hardly any pieces dated past 1675 (van Gangelen, Kersloot and Venhuis 1997, 14; Dijkstra, Houkes and Ostkamp 2010, 128). It follows that most of the slip-decorated vessels should be dated between 1580-1650 (van Gangelen 2000, 152). The production of slipware has mainly been associated with North Holland, hence often termed North Holland Slipware (Hurst, Neal and van Beuningen 1986, 154). However, also South Holland must have known several production centres. For now, wasters were only found in Leiden but Gouda should also be envisaged as producing slipware (Dijkstra, Houkes and Ostkamp 2010, 128). Recent excavations of wasters in Aalst (Bracke and Van Hove s.d.) showed that these productions are not just limited to the Netherlands, but that some of the slipware productions might be of a Flemish provenance. As this commercial excavation has thus far only led to a preliminary report, these Flemish wares remain unfortunately hard to grasp.



Figure 14 Local or regional redware fabrics.

3.9.2.2 Bergen op Zoom

Whereas it has been said above that locally-produced and imported redwares are generally indistinguishable, some large-scale production centres can be identified by a particular fabric, often in combination with a diagnostic design. One of these production centres is situated in or around Bergen op Zoom (Figure 15). Clays for this production originate from the formation of Tegelen. Once fired, fabrics have an orange-red colour and are characterised by a dense, fine and sandy grain with inclusions of round quartz, garnet and flakes of silver-coloured muscovite (De Clercq and Degryse 2008, 455-456). The latter are naturally present in the clay. With 30 to 40% sand, clays from the formation of Tegelen do not need additional tempering (Groeneweg 1992, 119). Although Bergen op Zoom vessels are thus constituted of a slightly-different micaceous fabric, with finer quartz, the difference with the common redware fabric is generally hard to tell on a mere visual basis. In the cases where vessels were ascribed to Bergen op Zoom, it was always the deviant design that allowed to do so (e.g. the heavily-undercut rims with large carinated bowls).



Figure 15 Bergen op Zoom redware fabric.

3.9.2.3 Oosterhout

Another production centre that produced for a supra-regional market is Oosterhout. Oosterhout productions in Flanders seem to have been limited to slip-decorated plates. The export of these vessels reaches its height between the late 16th and early 17th century. Oosterhout plates can be distinguished from other Dutch products by the fact that they have a groove separating rim from well, rather than a sharp break. Also decorative motives differ, for example with longer slip lines that are spaced out more. Finally, the fabric (Figure 16) has a more yellow-orangey colour than the average Low Countries redware (Bartels 1999, 113).

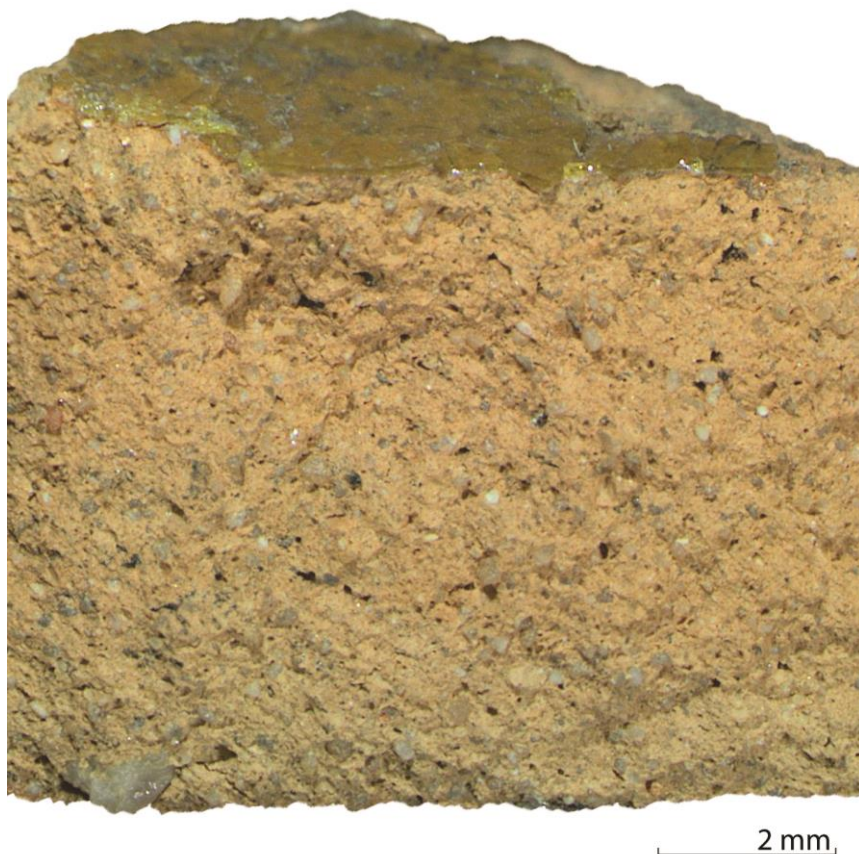


Figure 16 Oosterhout redware fabric.

3.9.2.4 Lower Rhine area

From the second half of the 17th century, throughout the 18th century, redwares are also imported from the Lower Rhine area. It are mainly the decoration patterns on these vessels that allow an identification as such. We will therefore not go any deeper into their fabrics, which highly resemble common Low Countries' redwares. For a description of the encountered decoration patterns and their dating, see '7.4.2 Imported redware'. More information on this particular production has been published by Gaimster (1986), Gaimster (1988) and Gaimster (2006).

3.9.2.5 Portuguese

A particular category are the redwares that were imported from Portugal. It concerns the so-called *barros finos*, a specific segment of the Portuguese pottery market, in which coarser wares were also produced. These were erroneously introduced by Hurst in the 1960s as Merida ware (Hurst, Neal and van Beuningen 1986, 69) and were subsequently often attributed to Estremoz, based on the influential work by de Vasconcellos (de Vasconcellos 1921). However, placing the main production centre in Estremoz is also problematic, as several other production sites are now known in Lisbon, Aveiro and Coimbra, together with some minor productions around Porto (Sardinha 1990-1992;

Folgado and Ramalho 2000; Newstead 2014, 33-34; Larrazabal, Dordio and Báez 2015). In the Low Countries, the term ‘terra sigillata’ is used when referring to this ware type (e.g. Baart 1992). This use finds its origins in Brusting (1972). Again, this term is now considered problematic (Newstead 2014, 117-118). We will therefore opt for the general term Portuguese redwares. Put in plural, it reflects the diversity of fabrics/quality in this dissertation:

- 1) A fabric that is hard, beige to orange-red in colour, with the inclusion of sandy particles and relatively many, large pieces of grog. The fabric most likely originates from the Lisbon area (Newstead 2014, 285).
- 2) A fabric that is very hard and fine, bright red in colour, with the possibility of a grey core, and small sandy inclusions. An exact provenance remains however unspecified.
- 3) A fabric that is hard, brown in colour and rather coarsely tempered.
- 4) A fabric that is purple-red in colour and with some lime? inclusions. Vessels of this fabric type differentiate themselves from other Portuguese redwares by a black in- and exterior. Nevertheless, the specific context of the site on which it was found argues in favour of a Portuguese provenance.

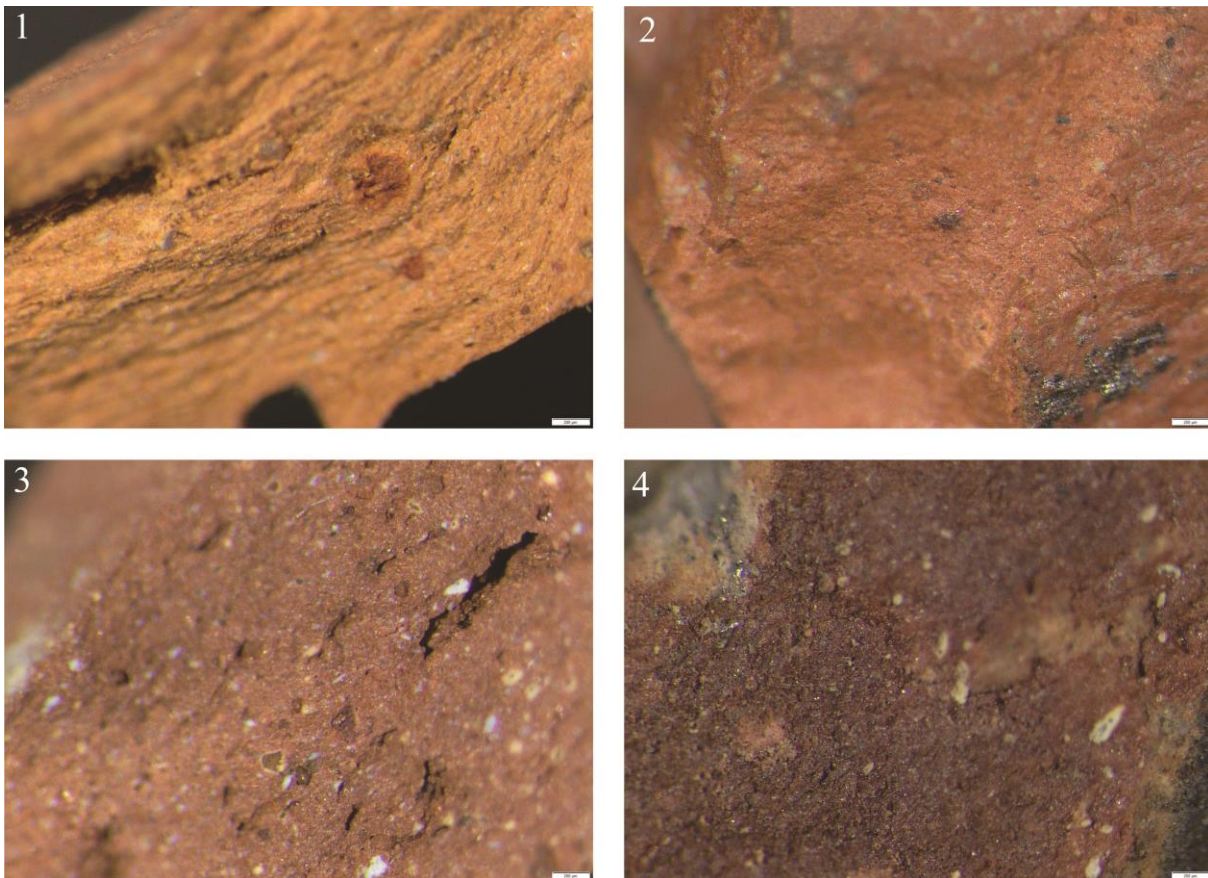


Figure 17 Portuguese redware fabrics (numbers refer to the text).

3.9.2.6 Spanish

Spanish redwares were found in the form of Valencian lustreware and the so-called olive jars. Although the latter term is actually a misnomer, as these *botijas* did not exclusively contain olives (Gutiérrez 2000, 58), the term will be retained throughout this thesis. Several production centres seem to have been involved in the production of these jars, not only in Seville, but also in its surroundings and on the coast to the south of this city (Gutiérrez 2000, 60). We will therefore refrain from assigning a specific provenance. Olive jars are characterised by a buff-coloured surface with a grey coarse-grained core (Figure 18). Its body is clearly turned and never glazed.



Figure 18 Spanish olive jar fabric.

3.9.3 Whiteware

The use of whitewares increases in the 16th century (Bartels 1999, 158). These ceramics are made out of a *tertiary clay sedimentated at the coast of the sea during the Miocene*. The clay is free of iron, hence why it stays white after firing. The sediment can be found in the Rhineland, the Meuse valley and northern France. Problematic for the 16th century, is that few white-firing vessels can be ascribed a certain provenance, although for Flanders the north of France can generally be excluded, as the pottery supply from this region seems to have been limited (or even non-existent). Another problem is that local potters

imported these clays (Bartels 1999, 147). However, as whiteware vessels are deviant from the local typology, this was probably not the case for the assemblages studied here. This multiplicity of possible provenances for the 16th century, is reflected in the many different fabrics that were attested (e.g. Figure 19:1-2). Given the current state of research, any attribution to a certain production centre remains uncertain (De Groote 2008a, 345). We have therefore refrained from doing so.

The situation is quite different for the 17th century (Figure 19:3). Of the three supra-regional pottery centres in the Netherlands, Bergen op Zoom, Oosterhout and Gouda, only the latter produced whitewares. Moreover, export from Gouda to Flanders has been documented in archival records (van der Meulen and Smeele 2012, 109). Gouda should thus be considered as one of the most likely provenances for the 17th-century whitewares in this dissertation, considering the major importance of the Northern Netherlands as a pottery supplier. The production at Gouda has been particularly well-studied (van der Meulen and Smeele 2012). Whereas white-firing pots were previously mainly imported from the Meuse valley and Rhineland, production in Gouda was growing since the middle of the 16th century (Ostkamp 2012, 54). At that time, the city imported its clay from Eastern Friesland. However, during the 17th century, clays were increasingly shipped from the region around Cologne, until its use was banned in 1684 (van der Meulen and Smeele 2012, 39).



Figure 19 Whiteware fabrics. 1-2: 16th century, 3: 17th century.

3.9.4 Hafner

A specific kind of Rhenish whiteware has been coined as Hafnerware, referring to the German word for potter. It is characterised by the mottled appearance of its lead glaze, due to the (deliberate?) inclusion of iron/manganese particles and was mainly produced between 1525 and 1675 (Arts 2014, 172). Hafnerware is mostly associated with productions in Cologne and the nearby Frechen. However, Bartels (1999, 149) also mentions Siegburg productions of this waretype. These latter productions remain unfortunately ill-known. Imports in the Low Countries date to the 16th and 17th centuries, but it seems that the waretype was particularly popular in the second half of the 16th century (Clevis and Thijssen 1989, 15).

Cologne productions can be identified by their coarse (naturally?) tempered fabrics (Figure 20)(Bartels 1999, 151). The main period of pottery production in Cologne should be situated in the first half of the 16th century, as many potters moved to the neighbouring Frechen between 1550-1570, possibly resulting from religious intolerance in the city of Cologne. Frechener hafnerware can be distinguished from its Cologne counterpart by its refined, pipeclay-like fabric (Gaimster 1997, 193; 2006, 79).

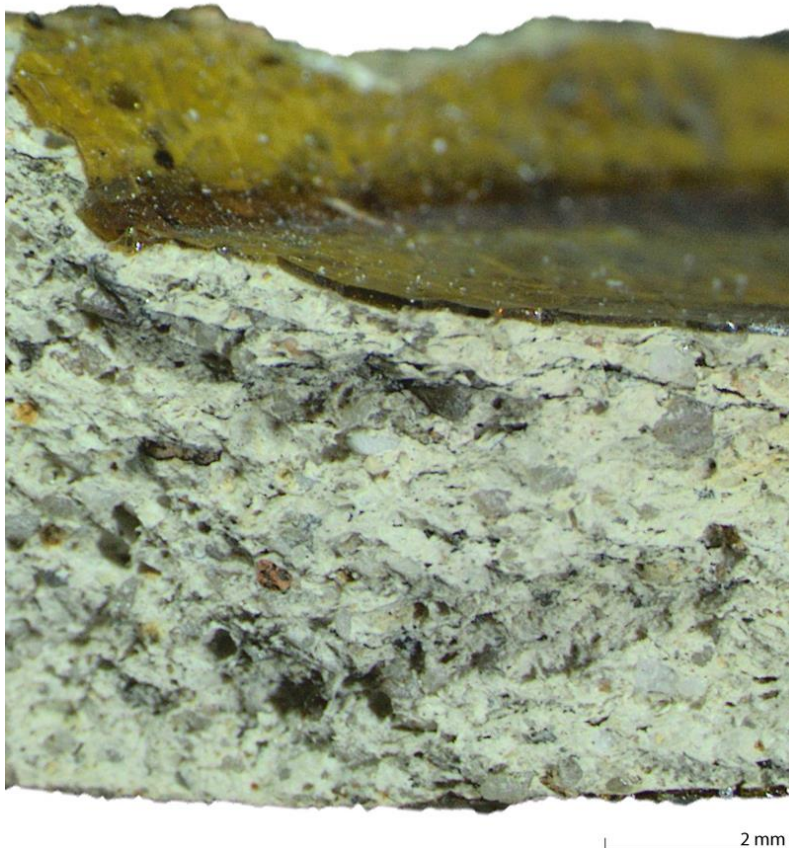


Figure 20 Hafner (Cologne?) fabric.

3.9.5 Tin-glazed ware

In this chapter, both maiolica and faience are grouped together under the term tin-glazed ware. In literature, the distinction between both categories is generally made on the basis of glazing and production technique. Faience is fully covered in a tin glaze and produced in saggars, whereas maiolica only has tin glaze applied on the upper surface and vessels were separated during firing with stilts. However, as this distinction cannot always be made on the level of the individual sherd, this common denominator will be used.

3.9.5.1 Low Countries

Maiolica production in the Low Countries commences in the early 16th century, when some Italian potters settled in Antwerp. The most renowned of these migrants is Guido di Savino, who was already active by 1508. However, the height of this Antwerp maiolica production is situated in the second half of the 16th century (Oost 1997, 167; Veeckman 1997, 113; Bartels 1999, 209). Antwerp potters appealed to different clay sources. As a result, colours of the fabric range from pinkish to beige. Grog could have been added as temper (Dumortier 2002a, 61). In search for new markets, Antwerp potters also established workshops in cities such as Bruges, Brussels and Ghent. The political troubles of the late 16th century formed to incentive for a migration to the Northern Netherlands (Veeckman 1997, 113; Dumortier 2002a, 49). However, the image that North-Nederlandish maiolica would necessarily date to the second half of the 16th century, as the result of this migration, is incorrect. Hurst, Neal and van Beuningen (1986, 119) mention the find of wasters in the North, dating to the early 16th century. During the 17th century, maiolica production runs parallel to that of faience but increasingly loses its value (Claeys, Jaspers and Ostkamp 2010, 127).

Faience is generally considered as the technological successor to maiolica. The rise of this ceramic category is dated to the second quarter of the 17th century, having the upper hand on maiolica from the middle of that century onward (Claeys, Jaspers and Ostkamp 2010, 127). As stated above, the main differences are situated in the glazing and firing technique. Moreover, a large part of faience vessels are undecorated, with its temper no longer visible. Around 1800, the production of faience gives way to industrially-produced ceramics (Bartels 1999, 204, 208; Claeys, Jaspers and Ostkamp 2010, 128).

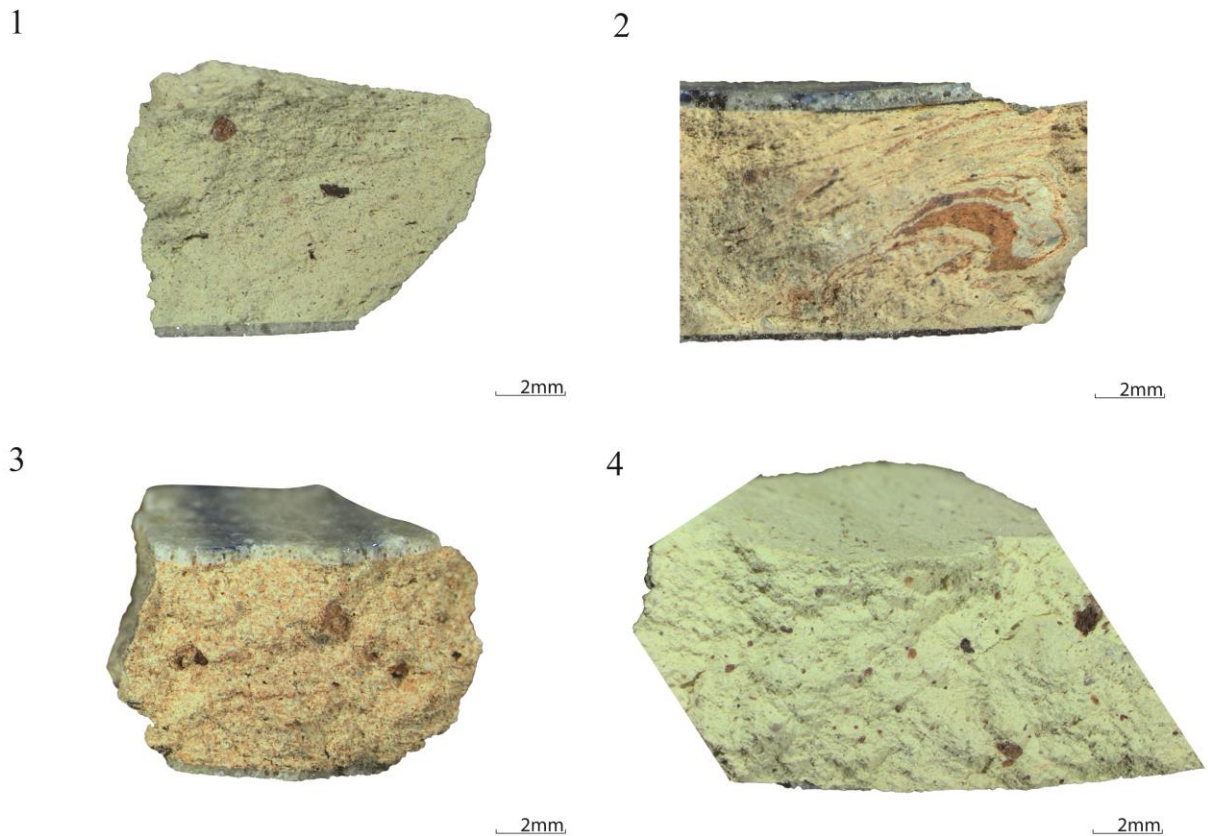


Figure 21 Low Countries tin-glazed fabrics. Evidence for the mixing of red- and white-firing clays is clearly visible with 2 and 3.

3.9.5.2 Italian

3.9.5.2.1 Italian ceramics in Flanders: state of research

This chapter has been submitted for publication with *Archeologia Postmedievale* as:

Poulain M. and De Clercq W. 2016. Mediterranean pottery at the castle of Middelburg-in-Flanders.

Before moving on to the actual discussion of Italian fabrics, the following paragraphs will consider the current state of knowledge on early modern Italian ceramics in Flanders, as this story was yet to be written.

To quote Hurst (1991, 212), *excavated Italian pottery is quite different from the fine wares seen in art museums*, and, by extension, in most publications on this topic. In addition to the current state of early modern archaeology in Italy (Milanese 2007), it explains the limited range of reference material for the finds below. Indeed, Italian ceramics have thus far mainly been approached in an art-historical way, with emphasis on the elaborately-decorated *istoriato* vessels, depicting historical, religious or mythological scenes and inspired by great artists such as Pinturicchio and Raphael. Similar *istoriato* pieces have, however, never been found on archaeological excavations in Flanders. Even more, Italian

ceramics altogether only seldom appear in Flemish archaeological assemblages. The character, chronology and distribution of these imports therefore remain ill-known.

A synthesis of late medieval Mediterranean ceramics in Flanders has been written by De Groote (2014). On the basis of an enquiry, a list of 17 refitted fragments of Italian pottery was compiled, spread across 9 different towns and cities. Another 11 fragments of what was previously called South-Netherlands maiolica is also possibly of an Italian origin, and is therefore named Italo-Netherlandish (De Groote 2014, 1, 2, table 1). Although these numbers are limited, a certain pattern can be observed. All these fragments were found on monastic sites or sites connected to them, with exception of the late medieval fishing village Raversijde (De Groote 2014, 3). For the early 16th century, the relation between Italian maiolica and religious, high-status sites is best illustrated for Petegem, where Tuscan? sherds were found during the excavations of a deposit in the Saint-Clara abbey of Beaulieu (De Groote 1992; 2002b; 2014, 2). De Groote concludes that, in the 15th century, these imports were *more than rare objects of prestige or beauty*, as they do not appear in other well-to-do sites, an observation confirmed by religious symbols on some of these vessels (De Groote 2014, 9). Italian pottery was most likely appreciated for its symbolic meaning and functioned in the cult of the Holy Virgin (De Groote 2014, 17). That meaning and function seems to have shifted at the turn of the 16th century, as is evident from the presence of these imports in assemblages dating to the late 15th and first half of the 16th century (De Groote 2014, 16). Although the connection to monastic sites is continued throughout the first half of the 16th century, see for example the find of a polychrome Deruta dish at the Franciscan monastery in Oudenaarde (De Groote 2014, 16), Italian ceramics now also surface in other social contexts.

From the second quarter of the 16th century onward, these imports start to appear in Flanders's main trading hubs: Antwerp and Bruges. Based on a personal communication by Tony Oost, former city archaeologist of Antwerp, Baart (1991, 233) mentions a polychrome-painted dish, dating to that very period, decorated *with foliate scrollwork and figures on the border of a blue background*, and attributed to Faenza. Faenza is not the only production centre that is represented. A report of an excavation in Bruges depicts a plate from Deruta, dated to the second half of the 16th century (Hillewaert and Verwerft 2011, 33, fig. 42, fig. 53). Also Ligurian imports would have been found, both in Antwerp and Bruges (Baart 1991, 234). Unfortunately, none of these finds have made it to publication. In the first half of the 17th century, the character of Italian imports seems to shift from a polychrome *horror vacui* decoration to a plain white tin glaze. For Bruges, a white Italian, tin-glazed fluted dish has been published (Hillewaert and Verhaeghe 1991, 221, 224, fig. 180:6), and recent research adds yet another white tin-glazed jug and fluted dish, found at the *Blauwhof* residence of the Portuguese merchant family Ximenez in Temse (Poulain, Van Vaerenbergh and De Clercq 2016).

How does this data for the Southern Netherlands compare to that of the North (more or less the current Netherlands)? Where the evidence for Flanders is limited, Italian

ceramics in the Netherlands are far more prevalent, making up to 5 percent of archaeological assemblages (Baart 1991, 234). Is this observation the result of a historical reality, or does this reflect the current lack of research into early modern ceramics in Flanders? The latter possibility has already been suggested in the 1980s (Baart 1986, 86). Indeed, the lack of Italian ceramics in Flanders partly follows from the fact that they are not recognised as such, and by the current status of early modern archaeology (see ‘1.3 Archaeology of the Religious Wars in Flanders’). However, this differentiated distribution can also flow from historical reasons.

In the Netherlands, Italian ceramics seem to be nearly completely missing in assemblages dating before 1550 (Bartels 1999, 222). The finds described above, and those of Middelburg below, suggest that the opposite is true for Flanders. The early date of Italian maiolica in Flanders might be linked to the active Italian community in trading hubs as Antwerp and Bruges. Bruges functioned as a ‘centre of gravity’ for trade in late medieval Europe. Although this centre shifted to Antwerp in the late 15th century, following the troubles with Maximilian of Austria and the silting up of the Zwin tidal inlet, connecting Bruges to the sea, Italians remained active in the city of Bruges. For example, the 1496 statutes of the Genoese trade nation stipulated that a consul and treasurer were to be elected annually (Stabel 2001, 212) and also Tommaso Portunari (portrayed by Hans Memling, Metropolitan Museum of Art, c. 1470) had his own bank in the *Naaldenstraat* until 1497 (Marechal 1985, 172). Nevertheless, by then, Antwerp had already overtaken Bruges as a commercial centre. The trade between Italy, Spain and the Low Countries particularly intensified after the peace of Cambrai in 1529 (Subacchi 2002, 23). Many of the Italian merchants in Antwerp were organised into several trade nations from 1528 onward to almost the end of the 16th century, with the Genoese as the largest group of traders. They were not only involved in commerce, but also banking and finance (Subacchi 2002, 24, 25). Although some of the older finds may thus have been imported through Bruges, it is most likely that most of the 16th-century Middelburg finds described below were landed in Antwerp (see ‘4.3.4.6.2 Italian pottery’). This argument is reinforced by the fact that maiolica from Montelupo, the main supplier for the 16th-century Low Countries, was embarked in Pisa onto Genoese ships, which subsequently set sail for Antwerp (Baart 1991, 233). The situation changed in the late 16th century, when a considerable increase of Italian imports (mainly Ligurian) can be noted in several Dutch cities. This increase is linked to the downfall of Antwerp, following the troubles of the Eighty Years’ War, and the direct trade of the Northern Netherlands with Italy, whereby Dutch ships brought back Ligurian maiolica to Amsterdam as a retour product of the grain export (Baart, Krook and Lagerweij 1990, 7; Baart 1991, 233). For more information on the nature and importance of Dutch trade and shipping with Italy, see Engels (1997).

3.9.5.2.2 Fabrics

For vessels originating from Montelupo, fabrics seem to be related to forms. Plates are characterised by a fine-grained and white-coloured fabric (Figure 22:1). For *crespine*, the fabric is similarly fine and hard, but of a grey colour (Figure 22:2), and as such, rather different from the other Montelupo productions (Hurst, Neal and van Beuningen 1986, 23). Adriatic (possibly Faenza) fabrics resemble the Montelupo plates in their white colour. They are furthermore characterised by the inclusion of some larger quartz grains (Figure 22:3). Ligurian fabrics on the other hand have several smaller inclusions and are of a buff colour (Figure 22:4).

Finally, plain white tin-glazed vessels are hard to distinguish from their Dutch counterparts. In this case, fabrics do constitute an important criterion in provenancing the ceramics, as Italian examples would possess of a finer quartz grain. Moreover, the tin glaze with Italian vessels is generally thicker than with Dutch productions. Unfortunately, no fabric pictures could be provided for these plain tin-glazed wares, as the studied examples in this thesis were museum pieces.

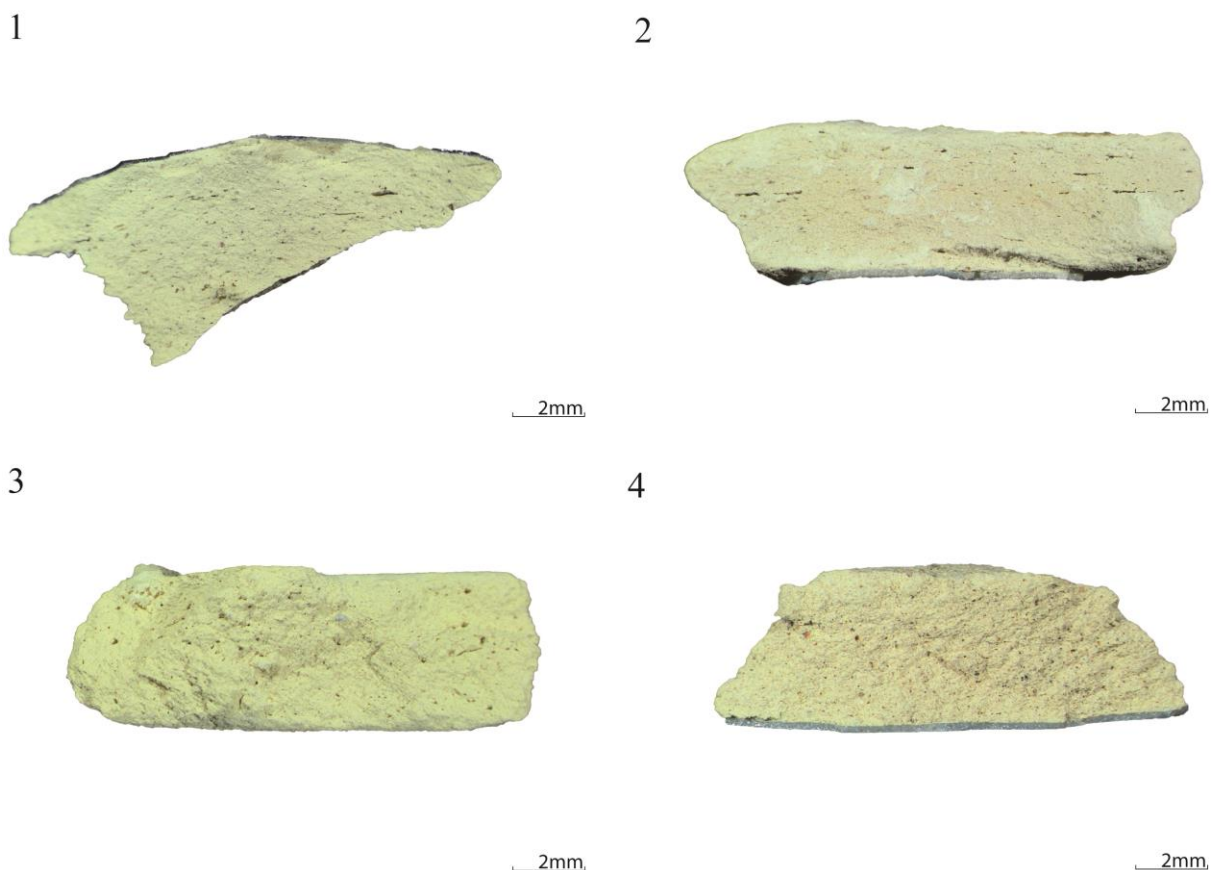


Figure 22 Italian tin-glazed fabrics. 1: Montelupo plate, 2: Montelupo *crespina*, 3: Adriatic (Faenza?), 4: Ligurian.

3.9.5.3 Portuguese

A small part of the studied tin-glazed vessels originates from Portugal. The main period of import for Portuguese tin-glazed wares into the Low Countries starts around 1610 (pers. comm. Nina Linde Jaspers) and ends some 50 years later, c. 1660 (Casimiro 2011, 150). The vessels in this dissertation most likely originate from Lisbon, since no imports from other production centres are currently known in the Low Countries (Claeys, Jaspers and Ostkamp 2010, 140). Their fabrics do indeed match Lisbon productions, described as *white buff yellowish, and somewhat pinkish in the less quality items, with their texture compact and homogenous and the little amount of inclusions (mainly quartz and micas), naturally occurring in the clay* (Casimiro 2011, 21).

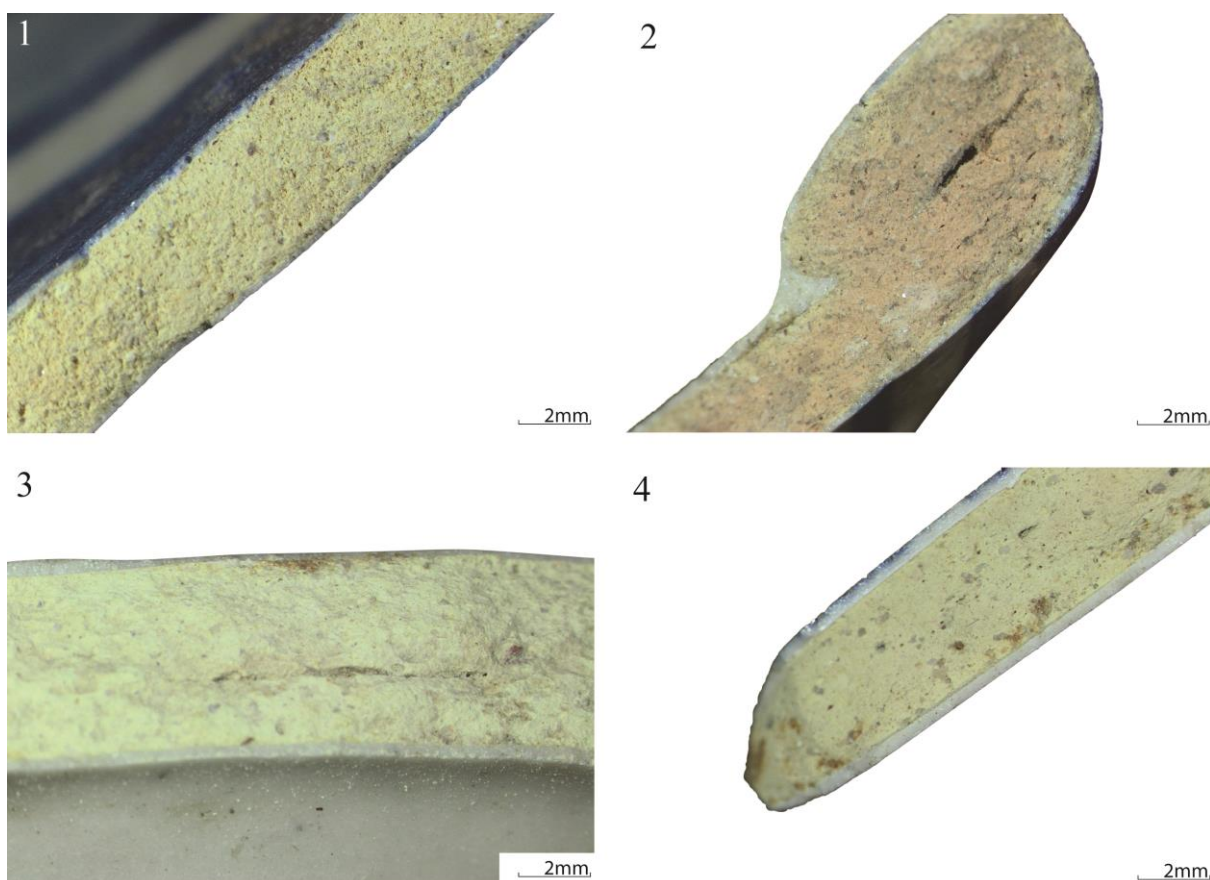


Figure 23 Portuguese (Lisbon?) fabrics.

3.9.5.4 Spanish

Two fabrics were attested for tin-glazed wares of a Spanish origin. A first fabric was found with a Plain White *escudilla*, a ware type previously coined as Columbia Plain. It is typical of the period from the late 15th to first half of the 17th century (Gutiérrez 2000, 44, fig. 2.26, 51). The provenance is probably to be found in Seville, and most likely in Triana, Seville's most productive city quarter in terms of pottery manufacture (Goggin 1968, 123;

Gutiérrez 2000, 45). The fabric is characterised by a pale yellow-brownish colour, with sparse inclusions and tin glaze on the in- and exterior (Figure 24).



Figure 24 Fabric of a Plain White *escudilla*.

Valencian lustreware resembles the Plain White fabric above in that is characterised by a pale orange or yellow calcareous fabric (Figure 25). The most likely clay source for this fabric is that of the *Pla de Quart*, which provided the largest part of base material for the Valencian pottery industry (De Clercq *et al.* 2015, 158, 159).



Figure 25 Fabric of a Valencian tile, scale 2:1 (photo Wim De Clercq).

3.9.6 Stoneware

All major Rhenish stoneware production centres are represented within the studied assemblages (Siegburg, Cologne, Aachen, Frechen, Langerwehe, Raeren and Westerwald) and so is Bouffioulx. Unsurprisingly, a Raeren provenance is most frequently attested. Due to a rise in demand, production in this town grew exponentially from the late 15th century onward. Already by the second quarter of the 16th century, it was the most traded type of stoneware in Dutch harbours (Gaimster 1997, 225). Raeren vessels are characterised by a fine, drak grey fabric and are frequently covered with an engobe. These characteristics also apply to most of the other production centres. It is but Siegburg that distinguishes itself by a light grey fabric. As due to the high firing temperatures no tempering is longer visible, I have opted not to include any fabric photographs. Beside

Siegburg, for which the fabric is diagnostic, it will rather be the form and decoration pattern that allow provenancing.

In general, Raeren's mass-produced articles of the first half of the 16th century are undecorated, in comparison to the vessels produced in the nearby Siegburg and Cologne. Under guidance of the potter Jan Emens, Raeren products reach an artistic height in the second half of the 16th century, possibly the result of the loss of the potter's industry in Cologne (Hurst, Neal and van Beuningen 1986, 195; Groeneweg 2000, 131-132). Shortly before 1590, Raeren potters in turn migrated to the Westerwald. This Westerwald production, certainly in its early years, is hard to distinguish from the Raeren original. The same goes for stoneware from Frechen (Gaimster 1997, 226; Bartels 1999, 65). Also Aachen vessels from the late 15th and early 16th century are often hard to differentiate from their Raeren parallels (Hurst, Neal and van Beuningen 1986, 190, 192). Given the many influences and imitations, assigning a particular vessel to a specific production centre is thus not always straightforward. When a provenance is stated for one of the vessels discussed below, this will serve to describe the characteristics that are typically associated with that specific centre, rather than making a real claim for production at that site.

3.9.7 Werra

Another category of German imports was produced along the Werra river, hence its name. Production of Werra ceramics originated in Heiligenstadt and rapidly spread to other pottery centres in the region, after which the vessels were shipped all over Europe from Bremen (Hurst, Neal and van Beuningen 1986, 242). A common characteristic is that this ware type is often dated, with dates ranging from 1568 to 1653 (Hurst, Neal and van Beuningen 1986, 244). However, export to the Low Countries is mainly to be situated between 1580 and 1630 (Hurst, Neal and van Beuningen 1986, 244). It coincides with the majority of dated pieces in the period 1590-1625 (Hurst, Neal and van Beuningen 1986, 244). Werra ceramics seem to have been particularly popular in the Low Countries in the 1590s. As such, its rise seems to be a little later than the Weser ceramics discussed below (see '3.9.8 Weser')(Ostkamp 2012, 58). In the early 17th century, Werra ceramics were also produced in Enkhuizen (the Netherlands), in a workshop owned by Dierck Claesz Spiegel. Production here was originally dated between 1602 and 1610 (Hurst, Neal and van Beuningen 1986, 248; Bruijn, Janssen and Hoffman-Klerkx 1992; van Gangelen 1995, 57). However, this has recently been adjusted to the period 1602-1613 (Ostkamp and Venhuis 2009, 43). Although Werra ceramics are often extensively decorated, Spiegel described his clientele as *the schamele gemeente* (the poor community) in a 1602 patent (Bruijn, Janssen and Hoffman-Klerkx 1992, 131). It is one of the arguments by which van Gangelen (1995) argues that Werra ceramics were mainly intended for the lower class. For the identification of a possible German or Dutch provenance of this ceramic category, we are

mainly limited to differences in the applied decorative motives, since both Dutch and German fabrics highly resemble the common Low Countries redware (Figure 26).



Figure 26 Werra fabric.

3.9.8 Weser

A final category of German imports is the so-called Weser pottery. As with Werra ware, the name is derived from the river along which different production sites were situated. The proximity of both production zones and the mutual influences between them, makes that they are discussed together. Both ware types can nevertheless be easily distinguished in fabric (red- and white-firing) and in the decorative motives applied. Moreover, the Weser fabric (Figure 27) is distinct to that of the whitewares discussed above (see '3.9.3 Whiteware'), in that it is fine-grained, with far less inclusions. Weser ceramics have certainly been produced since the early 1580s. However, production and export should possibly be already put in the preceding decade, being slightly earlier than Werra ceramics (Ostkamp 2012, 56). The main period of trade runs until 1625/1630, with a peak in consumption between 1590 and 1620 (Hurst, Neal and van Beuningen 1986, 251; Ostkamp 2012). In contrast to Werra pottery, Weser ceramics are never dated. According to Hurst, Neal and van Beuningen (1986, 251), this would reflect its everyday use. However, this statement is in contrast to the above observation that Werra ware is already used by the ordinary man in the street. Does it just concern another pottery tradition, or do we deal with an even more low-cost segment of the potter's market?



Figure 27 Weser fabric.

3.9.9 Porcelain

A final ceramic category that was encountered is Chinese porcelain, easily to be identified by its vitrified, translucent fabric (Figure 28). Although older finds are known, the general introduction of porcelain into the Low Countries was quite sudden, with the auction of the contents of the privateered Portuguese *caraccas* São Tiago and Santa Catharina, respectively in Middelburg (the Netherlands) in 1602 and in Amsterdam in 1604 (Rinaldi 1989, 34; Ostkamp 2003, 14, 17-18). These dates coincide with the peak of kraak porcelain production in Jingdezhen, under the reign of Wanli (1573-1619) of the Ming dynasty (1368-1644) (Rinaldi 1989, 11, 62).

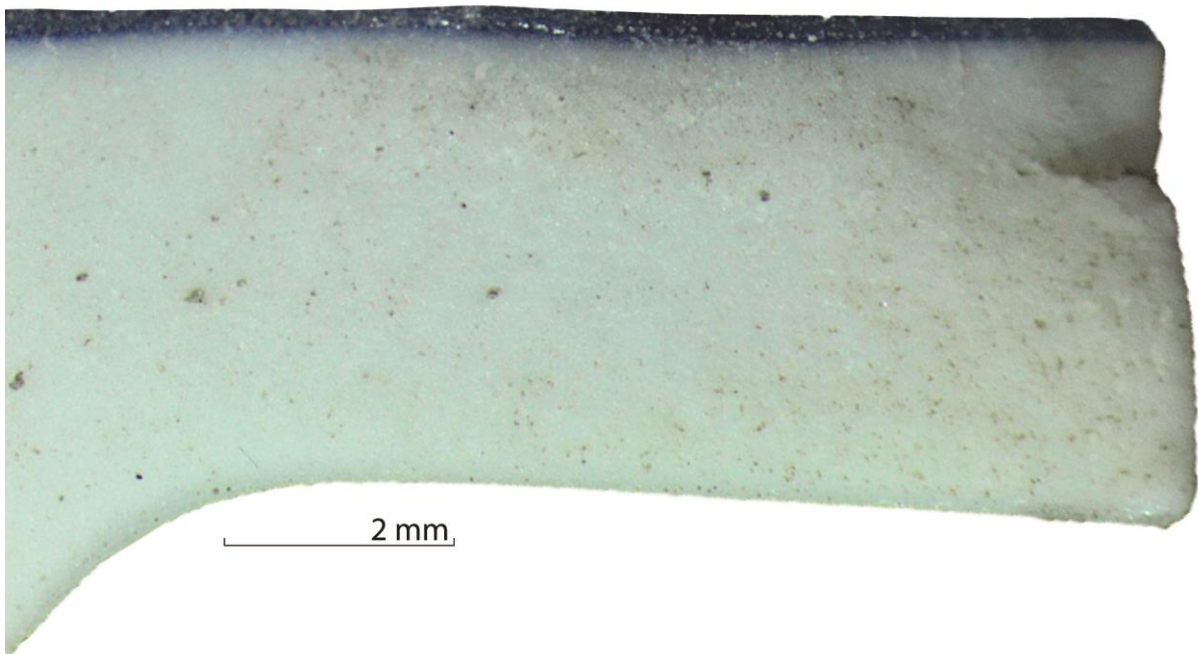


Figure 28 Chinese porcelain fabric.

3.10 Selection criteria and assemblage selection

The early modern sites gathered in the inventory (see '1.4 Exploring the archaeological record') were quoted in terms of reliability, in search of high-quality ceramic assemblages. Following De Groote (2008a, 22) the selection criteria that were set are:

- (1) A closed assemblage, with as little residual and/or intrusive material as possible.
- (2) A significant amount of ceramics. Although hard to quantify, 100 sherds is seen as the minimum.
- (3) Internal and external chronological data.
- (4) Relation of the assemblage to structural elements, of which the occupants are preferably known.
- (5) The recuperation and registration of the assemblage was made in a reliable way.

It quickly became clear that some flexibility was required in the application of the above, as no assemblage perfectly meets all of these selection criteria. Eventually, a list of potentially-interesting sites was compiled. Examples are the Capuchin convents in Bruges (Hillewaert 1993, 61) and Ostend (Pieters *et al.* 1995). For Bruges, several cesspits were also promising, in particular those at the sites 'Garenmarkt 17' (De Witte, Hillewaert and Maertens 1995, 87-90; Hillewaert 1995), 'Wollestraat-Kartuizerinnenstraat-Oude Burg' (De Witte 1994, 55; De Witte, Hillewaert and Maertens 1995, 85-86) and 'Langestraat-Verbrand Nieuwland, Gouden Boom', with a faience plate referring to the Treaty of Ryswick of 1697 (Decraemer *et al.* 2010, 29-31; Hillewaert *et al.* 2010, 93). For the rural environment, the site of 'Zone 99B' in Verrebroek proved to be most interesting, with the excavation of three likely 16th-century farmsteads (Van Roeyen 2000, 15-28). However, none of the latter were selected, as they lacked in large quantities of ceramics, were not narrowly dated or could not be linked to a specific group of consumers, without extensive archival research. A final group of four sites answering to the criteria was eventually retained for further analysis:

- (1) The castle of Middelburg (Maldegem)
- (2) The convent of the Poor Clares in Middelburg (Maldegem)
- (3) The Saint-Isabella fort in Ostend
- (4) The *Blauwhof* in Steendorp (Temse)

Three out of four sites fall within the research area that was set out above (Figure 1). The municipality of Temse does not lie within these geographical limitations. However, I opted to include the *Blauwhof* site, as it allows to check any regional differences and because of its high potential in answering the research questions that are central to this dissertation.

Chapter 4 From elite residence to military bulwark: Middelburg's castle

4.1 Middelburg-in-Flanders: location and history

A first group of sites is situated in the New Town of Middelburg-in-Flanders. Nowadays, Middelburg (Maldegem, East Flanders Province, Belgium) is just a small village in the vicinity of the Dutch border and some major urban centres such as Aardenburg, Bruges and Sluis (Figure 29). However, the street pattern and some remains of fortifications still remind us of its past. For a more in-depth discussion of Middelburg's geographical location and town plan, we refer to De Clercq *et al.* (2007).



Figure 29 The geographical location of Middelburg.

In 1448, the city and its castle were founded by Pieter Bladelin, treasurer and councillor of the Dukes of Burgundy (De Clercq, Dumolyn and Haemers 2007, 5-6). Through its creation, Bladelin confirmed his power and justified his pursuit of a noble status (De Clercq *et al.* 2007, 2; De Clercq, Dumolyn and Haemers 2007, 12-13). When Bladelin died on April 8, 1472, the fief of Middelburg became the subject of a legal dispute (Haemers 2005).

Guillaume Hugonet, chancellor of Burgundy, eventually bought out the other parties involved. However, following the imprisonment of Maximilian of Austria in 1488, the castle was captured and partially destroyed by the city of Bruges (De Clercq, Dumolyn and Haemers 2007, 8). In 1493, the town and its castle passed on to Hugonet's son, Guillaume II Hugonet (Martens 2015, 22). After the death of this new lord of Middelburg in 1537, the fief was continued under his daughter Claude (Claudine) and her husband Maarten van Hames (Martens 1994a, 38).

The rather prosperous times of the later 15th and first half of the 16th century strongly contrast with the troubles of the 1570s and 80s, when Middelburg became a focal point in the frontline of the Eighty Years' War. As a military stronghold in this Spanish-Dutch war, the castle lost its function as a noble residence, as different armies moved in, and the town became a pawn in the particularistic uprising against a centralistic ruler (Haemers 2005, 262). A period of peace returns in the 1590s, when different families once again lived on the castle (Martens 1997, 185). This interlude rapidly came to an end when Middelburg was taken by the Dutch in 1604 and the castle was partly destroyed (Martens 2005, 299, 305; 2006, 297). The commencement of the Twelve Years' Truce in 1609 signified better days for Middelburg. The new works on the castle in 1616 (Martens 2008, 256) may be indicative of these thriving times under Philip de Merode. Middelburg did, however, not remain free of acts of war. Subsequent military actions made that the castle had fallen completely in ruins by the middle of the 18th century (De Clercq *et al.* 2007, 4).

This brief historical introduction is but a small summary of the long historiographic tradition of the town. Karel Verschelde's *Geschiedenis van Middelburg in Vlaenderen* (1867) remains a reference work up to this day. However, for the list of historical events related to Middelburg, and the studied sites in particular (see 'Appendix'), I have mainly based myself on the research of local historian Marc Martens, who has revised and expanded the basis laid by Verschelde, and supplemented this with other sources where necessary.

4.2 Pottery from the garderobe chutes of Middelburg's castle

This subchapter was published in:

Poulain M., De Groote, K. and De Clercq W. 2013. Pots from troublesome times: Ceramics used in Middelburg-in-Flanders, Belgium, during the Eighty Years' War, *Medieval Ceramics* 34, 1-18.

4.2.1 Location in the castle

The contents of the garderobe chutes of the upper court [02/MIKA/15/35] and [03/MIKA/33/46] have been published in De Clercq *et al.* (2007) and will mainly be used for comparative purposes. The two assemblages discussed in detail came to light during the archaeological excavations of the bailey in 2004 (Figure 30). Garderobe chute [04/MIKA/1/2] was situated in the northern boundary wall, at 1.75 metres from the northwestern corner. It had a square plan and flowed into the northern moat. The back was plastered with a layer of lime mortar. At the height of the foundations, the chute was equipped with a concave and sloping stone plate (De Clercq, Pype and Mortier 2005, 94).

The eastern end of the northern bailey wall was characterised by a rectangular expansion, measuring 4.65 by 6 metres. On its northeastern corner, this wing had a tower with a diameter of 2.5 metres. In the corner between this latrine tower and the eastern wall another garderobe chute, [04/MIKA/9/10], was found (De Clercq, Pype and Mortier 2005, 95).

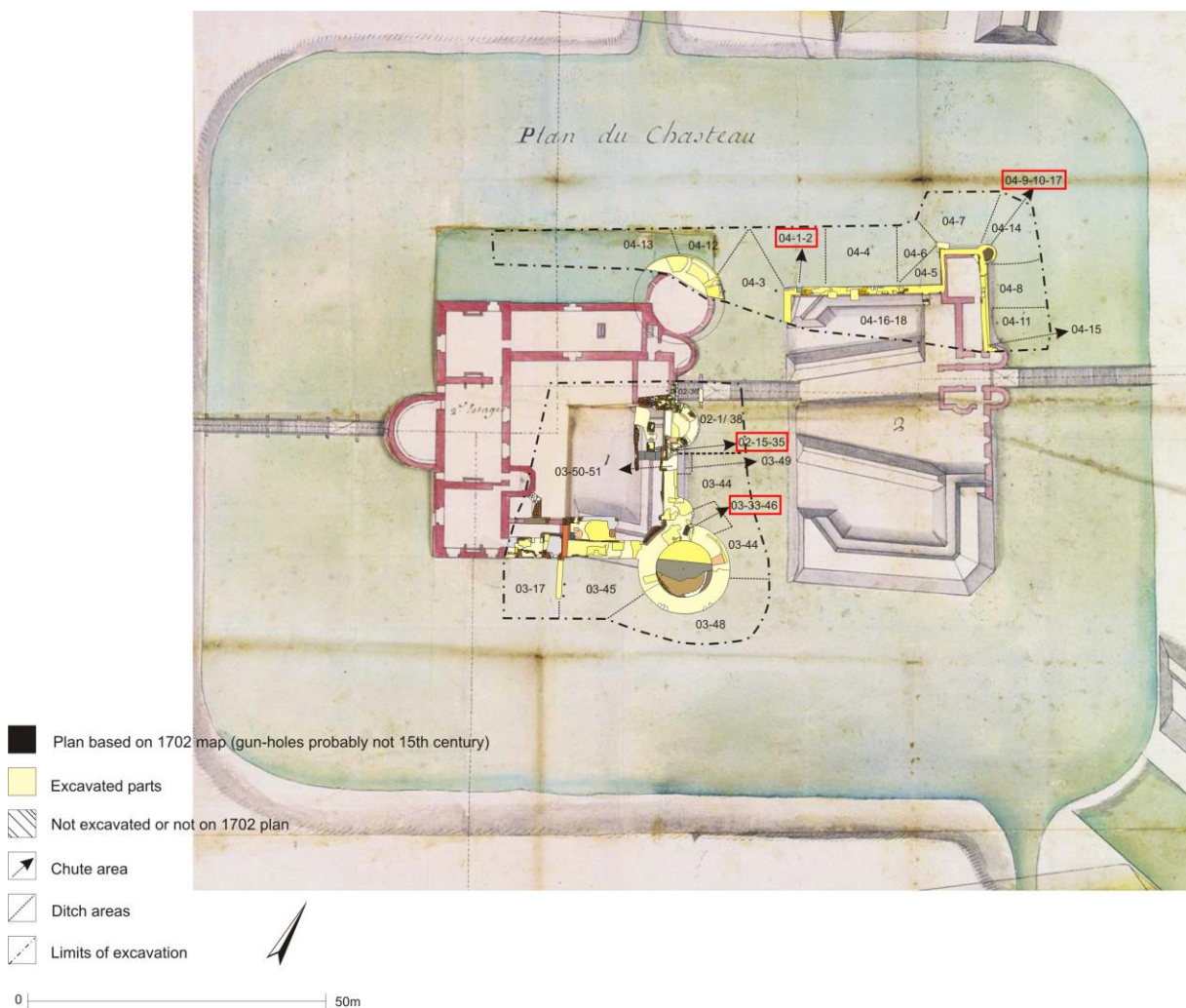


Figure 30 Map of the defensive system around Middelburg, drawn up in May 1702 by Senneton de Chermont, with projection of the excavation plan and marking of the

mentioned chutes (Archives de l'Armée de Terre, Vincennes (France), Fonds Midelbourg, 14).

4.2.2 Sampling strategies and taphonomy

As no stratification was observed, both chutes were dug up using artificial spits of ten cm (Figure 31). Each time, a division was made between the fill of the chute and its outflow into the moat (respectively [04/MIKA/1], [04/MIKA/9] and [04/MIKA/2], [04/MIKA/10]). Furthermore, both chutes were sampled for environmental analysis. However, in the context of this dissertation, these samples will not be dealt with.

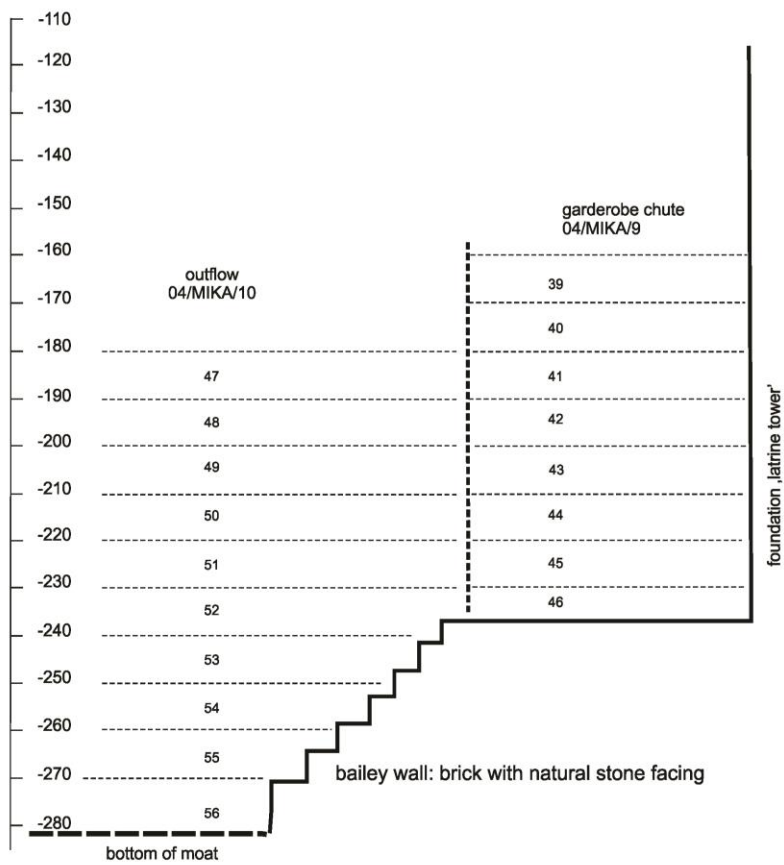
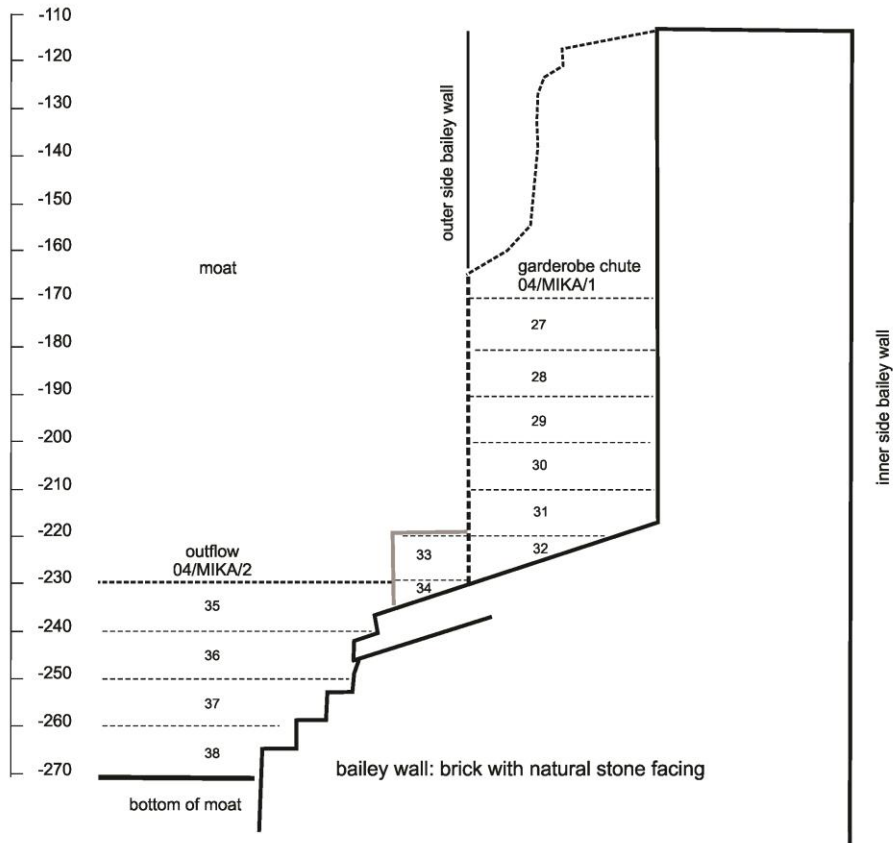


Figure 31 Section of garderobe chute [04/MIKA/1/2] (above) and [04/MIKA/9/10] (below) indicating the excavated spits. The depth below the surface is in centimetres.



Figure 32 Photographs of garderobe chute [04/MIKA/1/2] (left) and [04/MIKA/9/10] (right).

4.2.3 Garderobe chute [04/MIKA/1/2]

4.2.3.1 Introduction

The quantification of this chute (Table 2, Table 3 and Table 4) was made using sherd count and a rim-based MNI. This results in 1529 fragments of pottery, representing 134 individuals. The degree of fragmentation or brokenness (Orton *et al.* 1993, 169) is rather high. Five ceramic categories can be distinguished: redware, greyware, whiteware, tin-glazed ware and stoneware. Redware is the best represented category (sherd count 87.9%, MNI 88.1%). Together with the greyware (sherd count 5.6%, MNI 6.7%), it is of a local or regional origin. The other ceramic categories are imported, stoneware from the Rhineland (sherd count 1.8%, MNI 1.5%) and tin-glazed ware from different production sites in the Low Countries and an Italian import from Montelupo (sherd count 0.8%, MNI 3.0%). Because of its deviant typology, whiteware (sherd count 2.3%, MNI 0.8%) can also be considered as import. The exact origin could not be determined. With 25 sherds, the difference between a redware or greyware fabric could no longer be made due to the presence of soot and various soil processes.

Table 2 Quantification of ceramic categories.

	sherds	MNI	sherds%	MNI%	brokenness
redware	1344	118	87.9	88.1	11.4
greyware	86	9	5.6	6.7	9.6
whiteware	27	2	2.3	0.8	13.5
tin-glazed	12	4	0.8	3.0	3.0
stoneware	35	1	1.8	1.5	35.0
unknown	25	0	1.6	0.0	
total	1529	134	100	100	11.4

Table 3 Quantification of ceramic forms (MNI)

	redware	greyware	whiteware	tin-glazed	stoneware
plate	4			1	
porringer	3		1		
jug				1	1
cooking pot	73	5			
frying pan	1				
skillet	3				
large carinated bowl	20				
ointment jar	2				
flowerpot	2				
unknown	10	4	1	2	
total	118	9	2	4	1

Table 4 Quantification by probable function.

	MNI	MNI%
food preparation	82	61.2
kitchen/stock	20	14.9
tableware	11	8.2
hygiene	2	1.5
other/unknown	19	14.2
total	134	100

4.2.3.2 Fabrics and typology

4.2.3.2.1 Redware

A total of 118 redware individuals was counted and eight forms could be distinguished: plates, porringers, double-handled cooking pots, a frying pan, skillets, large carinated bowls, ointment jars and flowerpots.

The assemblage contains four **plates** (Figure 33:1-4). They all have a typical upright lip and are lead glazed on the inside. None of them are decorated. Furthermore, three **porringers** have been counted (Figure 33:5-7). The flaring body and strap-shaped rim is characteristic of this form. This rim can either be ribbed or plain. At least one individual has two opposing horizontal loop handles springing from the collar (Figure 33:5). The lead glaze on the inside of these porringers is colourless and can be applied on a white slip layer (Figure 33:6). The **double-handled cooking pot** or *grape* is by far the best represented form, counting 73 individuals (Figure 33:8-14, Figure 34:1-6). They all have a wide rim opening, a short neck and a base with thumbed feet, which is typical of the Flemish coastal area (Verhaeghe 1997b, 23-24; De Groote 2008a, 419). Most of them are covered with a colourless lead glaze and blackened by soot, indicating an intensive use. Several subtypes can be distinguished on the basis of rim shape and volume. What is particular, is that the cooking pot with a small volume is the best represented subtype. Nineteen individuals (28.8%) have a diameter of 12 to 16cm. Cooking pots with diameters of 17 to 21cm and 22 to 26cm both represent 24.2% (16 MNI). The diameter of another eleven individuals (16.7%) goes from 27 to 31cm. Finally four individuals (6.1%) have a diameter between 32 and 36cm. Despite this discrepancy in rim diameter, the proportion of the measurable cooking pots remains the same, with a width/height ratio of 1:0,7 (Figure 33:13-14).

Compared to other sites in Flanders, the *grapes* in this assemblage are rather low and open. The width/height ratio of the redware double-handled cooking pots in the St. Salvator abbey of Enne, dated 1450-1550, ranges between 1:0.9 and 1:1 (De Groote 2008a, 162, table 15). Likewise, in the *Hof van Hoogstraten*, Brussels, the majority of the double-handled cooking pots, dated 1525-1625, consists of high, closed forms (Van Eenhooge 1999, 282, 297). Another form that can be associated with cooking, is the **frying pan** (Figure 34:7). Only one individual was counted. It is characterised by a rounded rim, a convex base, traces of soot and the presence of lead glaze on the inside.

Three individuals were identified as **skillets** (Figure 34:8-10). Although the typical handles were missing, one can assume that it does concern skillets as pouring lip, lead glaze on the inside and soot traces are present and similar examples were found in the upper court chutes (De Clercq *et al.* 2007, 10, fig. 7:22-26). The **large carinated bowl**, *teil* in Dutch, was used to skim cream off milk. However, the presence of soot traces on some fragments may indicate a secondary function (see '4.5 Dietary practices'). A total of twenty individuals has been counted. Some common characteristics are the wide strap-to cuff-shaped rim with pronounced lower lip, the base with thumbed feet, a wide pouring lip and the application of lead glaze on the inside (Figure 34:11-13, Figure 35:1-3). Only one individual (Figure 35:4) has two horizontal, strap-shaped handles. Two rims with a flattened top on an outstanding collar indicate the presence of ointment jars or concave-sided jars (Figure 35:5-6).

In addition, two bases can also be interpreted as belonging to **ointment jars** (Figure 35:7-8). Their flat-turned base is characteristic of this form. Finally, two **flowerpots** were counted. A first flowerpot has a square, outstanding rim with upright lip and a cylindrical body (Figure 35:9). The second individual also disposes of a square, outstanding rim (Figure 35:10). However, in this case, it is flattened and provided with a grooved top. As it is usual on flowerpots, no traces of glaze were found.

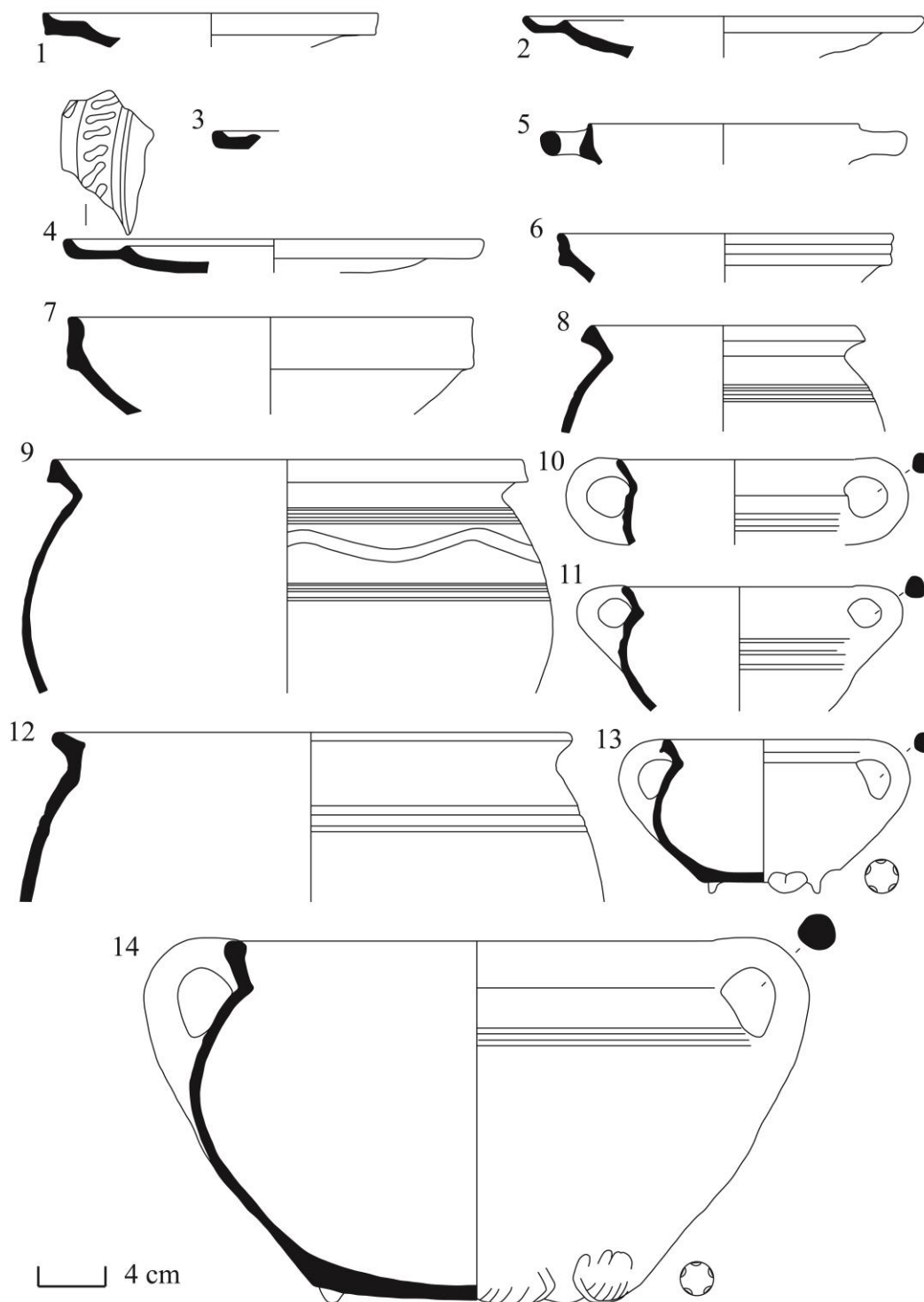


Figure 33 Chute [04/MIKA/1/2]. Local or regional redware pottery. 1-4: plates, 5-7: porringers, 8-14: cooking pots.

4.2.3.2.2 Greyware

Nine greyware individuals were counted. Only five of these could be identified (Figure 35:11-15). They all belong to the form type of the **double-handled cooking pot**. Their characteristics are similar to the ones in redware. The collared rim dominates and

traces of soot are present on most of the individuals. A flat-turned base fragment, possibly a beaker or small jug, rests undetermined (Figure 35:16).

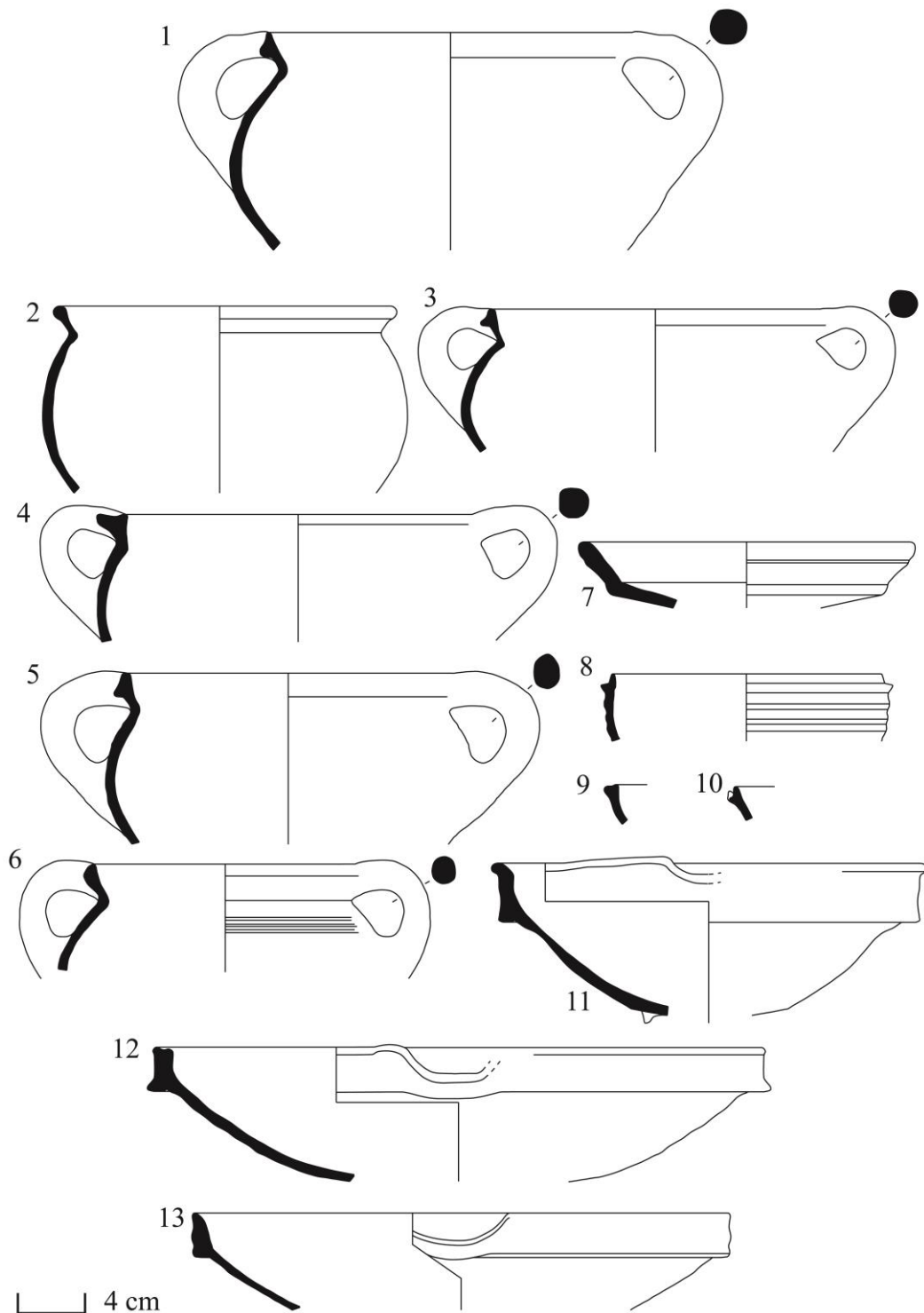


Figure 34 Chute [04/MIKA/1/2]. Local or regional redware pottery. 1-6: cooking pots, 7: frying pan, 8-10: skillets, 11-13: large carinated bowls.

4.2.3.2.3 Whiteware

As the design of these ceramic forms deviates from local productions, it can be assumed that the whiteware category concerns imported material. Several fabrics were distinguished, indicating multiple provenances. Only two individuals were counted of which one could be identified as a **porringer** (Figure 35:17). The porringer has a simple, upright rim, two horizontal strap-shaped handles and is characterised by a colourless lead glaze.

4.2.3.2.4 Tin-glazed ware

The assemblage contains four individuals of tin-glazed pottery, of which three could be identified as a plate and two jugs. Once again, several fabrics were present, indicating different sites of production, probably all from the Low Countries. A first fragment is from a maiolica **jug**, characterised by a cylindrical collar and a thorn on the transition from collar to shoulder (Figure 35:18). The fragment is affected by humic acids, making it impossible to determine its original colour scheme. Likewise, a base fragment could be identified as originating from a second maiolica jug (Figure 35:19). This base is concave, whereas its body has a more convex design. Once again, degradation by humic acids makes it impossible to determine its colours.

A final fragment (Figure 35:20) from Montelupo was previously misidentified as an Antwerp production (Poulain, De Groote and De Clercq 2013, 6, 8, fig. 6:20). This misidentification is telling of the current lack of knowledge on Italian maiolica imports in Flanders (see '3.9.5.2.1 Italian ceramics in Flanders: state of research'). The **plate** has an outwardly-kinked rim and concave base. Except for the base, the fragment has an all-over white-coloured tin glaze. The inside is decorated with polychrome motives of stylised helmets? and shields (see Berti's decoration pattern 29 *armi e scudi* [1998, 124]). It is dated to 1490-1510 (Berti 1998, 273, fig. 89), meaning that the plate was used over several generations before it was deposited in Middelburg's chute. A parallel has been found on the site of the *Parijse Hallen* in Bruges, but the find and its context remain unpublished.

4.2.3.2.5 Stoneware

Only one stoneware **jug** was found in this chute. The fabric of this jug is grey-coloured, very hard and originates from the Rhineland. But, as pottery from Raeren and Aachen cannot be distinguished on a mere visual basis, the provenance could not be narrowed down any further (Hurst, Neal and van Beuningen 1986, 190, 192; Gaimster 1997, 224-226). Both on the in- and outside, this stoneware jug is covered with a grey-brown engobe and is salt glazed (Figure 35:21).

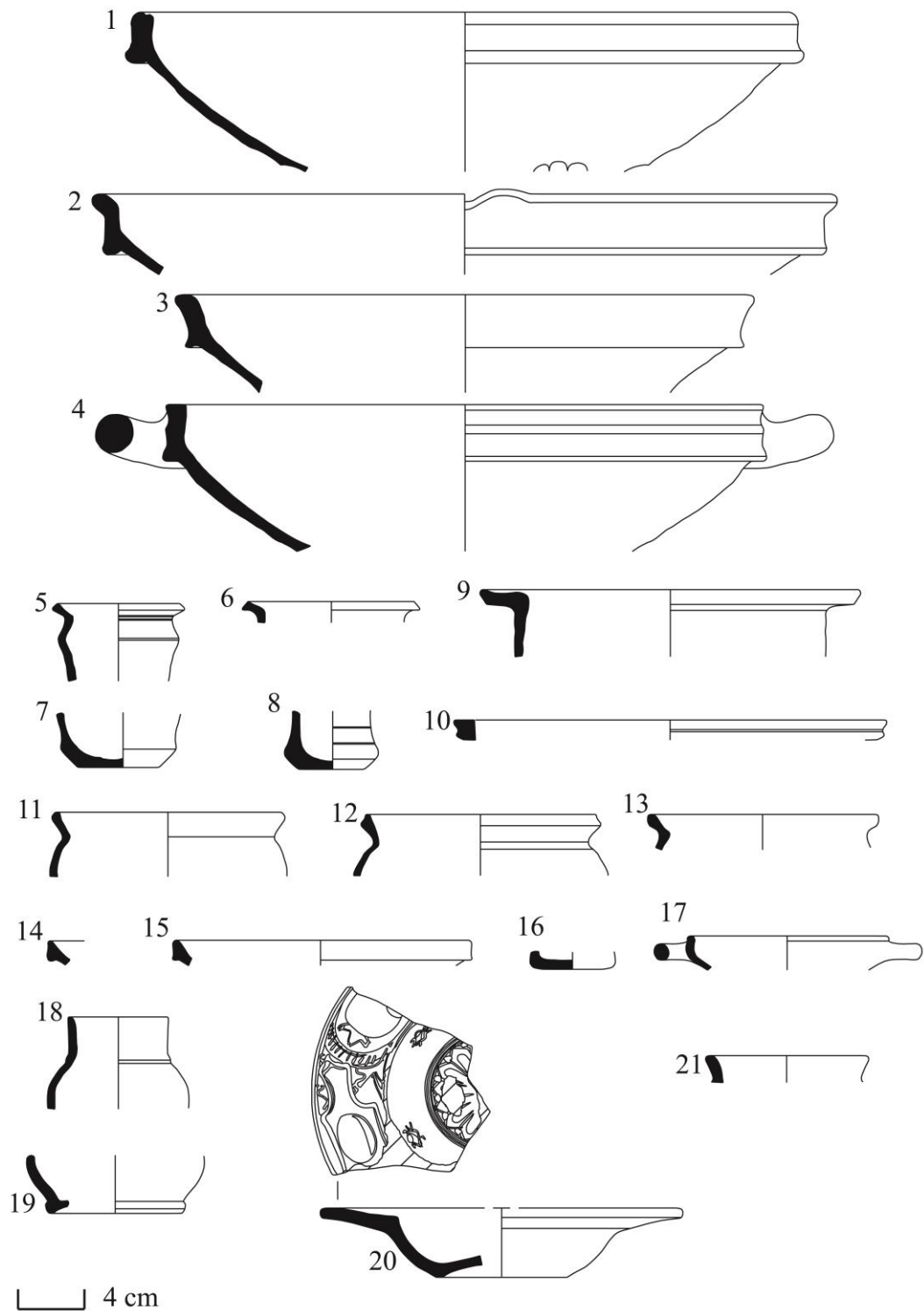


Figure 35 Chute [04/MIKA/1/2]. Local or regional redware pottery. 1-4: large carinated bowls, 5-8: ointment jars, 9-10: flowerpots. Local or regional greyware pottery. 11-15: cooking pots, 16: undetermined. Imported whiteware pottery. 17: porringer. Low Countries maiolica. 18-19: jug. Montelupo maiolica. 20: plate. Rhenish stoneware. 21: jug.

4.2.4 Garderobe chute [04/MIKA/9/10]

4.2.4.1 Introduction

The quantification (Table 5, Table 6 and Table 7) was made using sherd count and a rim-based MNI. This results in a total of 797 sherds, representing 128 individuals. Despite the fact that the number of pottery fragments is almost half of that in the former chute, the number of individuals is similar, the result of a rather low degree of fragmentation. Nevertheless, the same five ceramic categories are present. The vast majority of the redware (sherd count 87.0%, MNI 90.6%) and greyware (sherd count 3.4%, MNI 1.6%) is of a local or regional origin. However, at least one oxidised individual is imported. Likewise, whiteware (sherd count 1.4%, MNI 0.8%), tin-glazed ware (sherd count 1.5%, MNI 3.1%) and stoneware (sherd count 6.8%, MNI 3.9%) are imported.

Table 5 Quantification of ceramic categories.

	sherds	MNI	sherds%	MNI%	brokenness
redware	693	116	87.0	90.6	6.0
greyware	27	2	3.4	1.6	13.5
whiteware	11	1	1.4	0.8	11.0
tin-glazed	12	4	1.5	3.1	3.0
stoneware	54	5	6.8	3.9	10.8
total	797	128	100	100	6.4

Table 6 Quantification by probable functions.

	MNI	MNI%
food preparation	49	38.3
kitchen/stock	17	13.3
tableware	24	18.8
hygiene	6	4.7
other/unknown	32	25.0
total	128	100

Table 7 Quantification of ceramic forms (MNI).

	redware	greyware	whiteware	tin-glazed	stoneware
tankard					1
plate	8				
porringer	14				
dish				1	
jug	1				4
cooking pot	35				
frying pan	8				
skillet	5		1		
bowl	3				
basin	2				
large carinated bowl	8				
colander	1				
chamber pot	1				
ointment jar	2			1	
unknown	28	2		2	
total	116	2	1	4	5

4.2.4.2 Fabrics and typology

4.2.4.2.1 Redware

The fabric of the locally-produced redware has the same characteristics as the one described in chute [04/MIKA/1/2]. One individual deviates from this fabric and should be considered as import. This fabric is orange-red and has a dense, fine and sandy grain with inclusions of round quartz and micas. The clay of this fabric probably originates from the formation of Tegelen, with Bergen op Zoom as the main production centre (Groeneweg 1992, 119). In total, 116 individuals were counted, representing twelve form types: plates, porringers, a jug, double-handled cooking pots, frying pans, skillets, bowls, basins, large carinated bowls, a colander, a chamber pot and ointment jars.

The **plates** are, parallel to the former chute, all characterised by a rim with upright lip. On the basis of the decoration, the eight individuals can be grouped. A first group (Figure 36:1-3) is marked by the mere presence of a colourless lead glaze, whereas a second group (Figure 36:4-6) is characterised by the application of a white slip decoration on the inside. Two different schemes were used, one using a S-scroll, the other having a more irregular form. In the last group, decoration was incised using the sgraffito technique (Figure 36:7-8). Once again, two patterns can be distinguished. The first has a geometrical motif, while the second consists of acorns and stylised floral motives. The **skillet** is represented by five individuals, which can be divided in two subtypes. A first one contains three individuals and consists of an upright rim with thorn, a ribbed body and a pouring lip (Figure 36:9-11). A second subtype, containing two individuals, has a rim with grooved top, a pouring lip and a sharp transition to a convex base (Figure 36:12-13).

Fourteen individuals are determined as **porringers**. Several subtypes can be distinguished. A first type has a strap-shaped rim, two horizontal handles and a sometimes slightly-concave base or a convex base on a footring (Figure 36:14-16, Figure 37:1-3). The inside is always covered with a colourless lead glaze. Its design reminds us of the **large carinated bowl** or *teil*. Two fragments of this subtype stand out by their decoration with sgraffito and white slip decoration (Figure 37:4-5). A second type is characterised by an upright, ribbed rim, one horizontal handle and a convex base on a footring (Figure 37:6). Finally, a possible third type consists of an inwardly-bent rim with a heavy thorn on a hemispherical body (Figure 37:7).

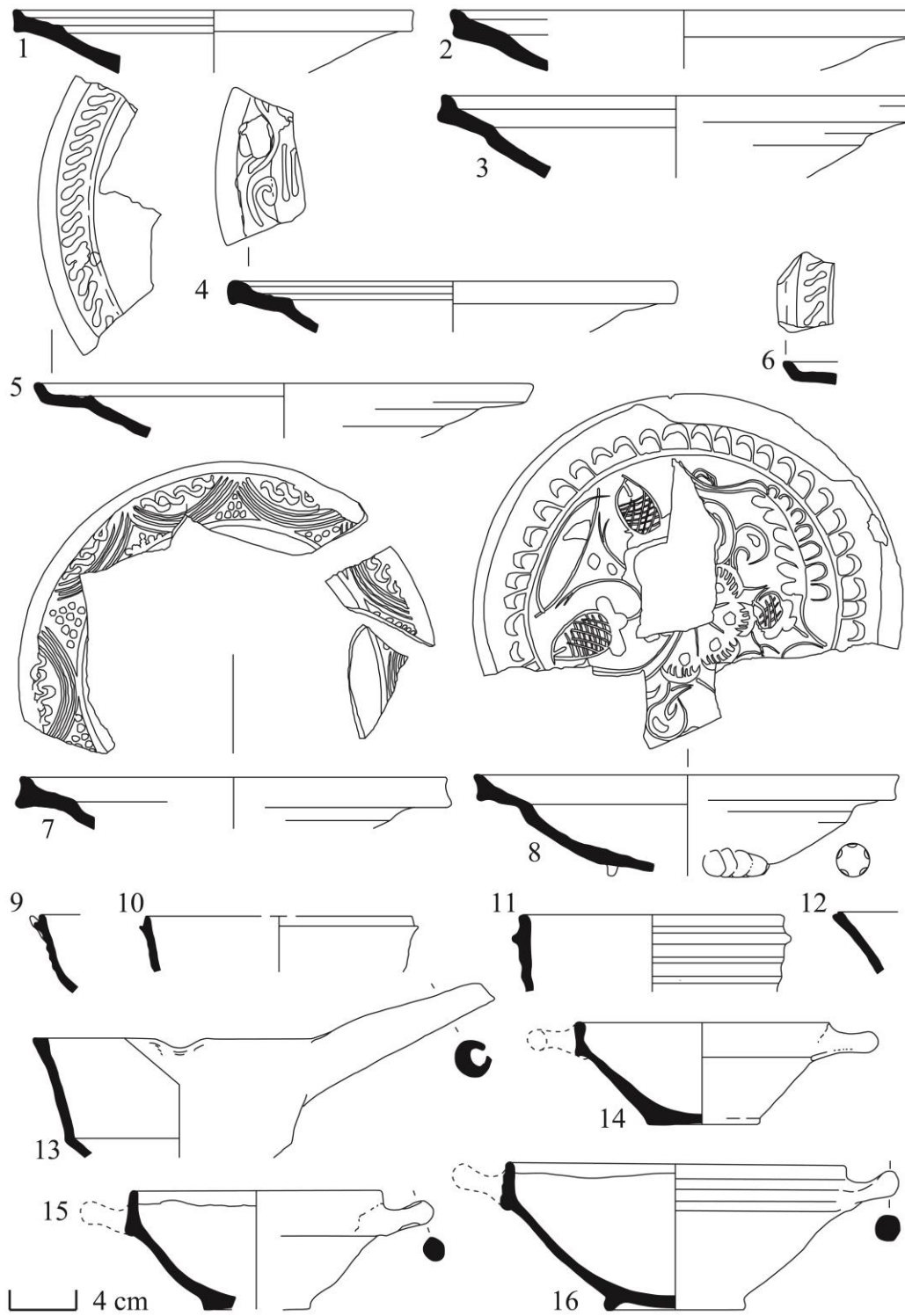


Figure 36 Chute [04/MIKA/9/10]. Local or regional redware pottery. 1-8: plates, 9-13: skillets, 14-16: porringers.

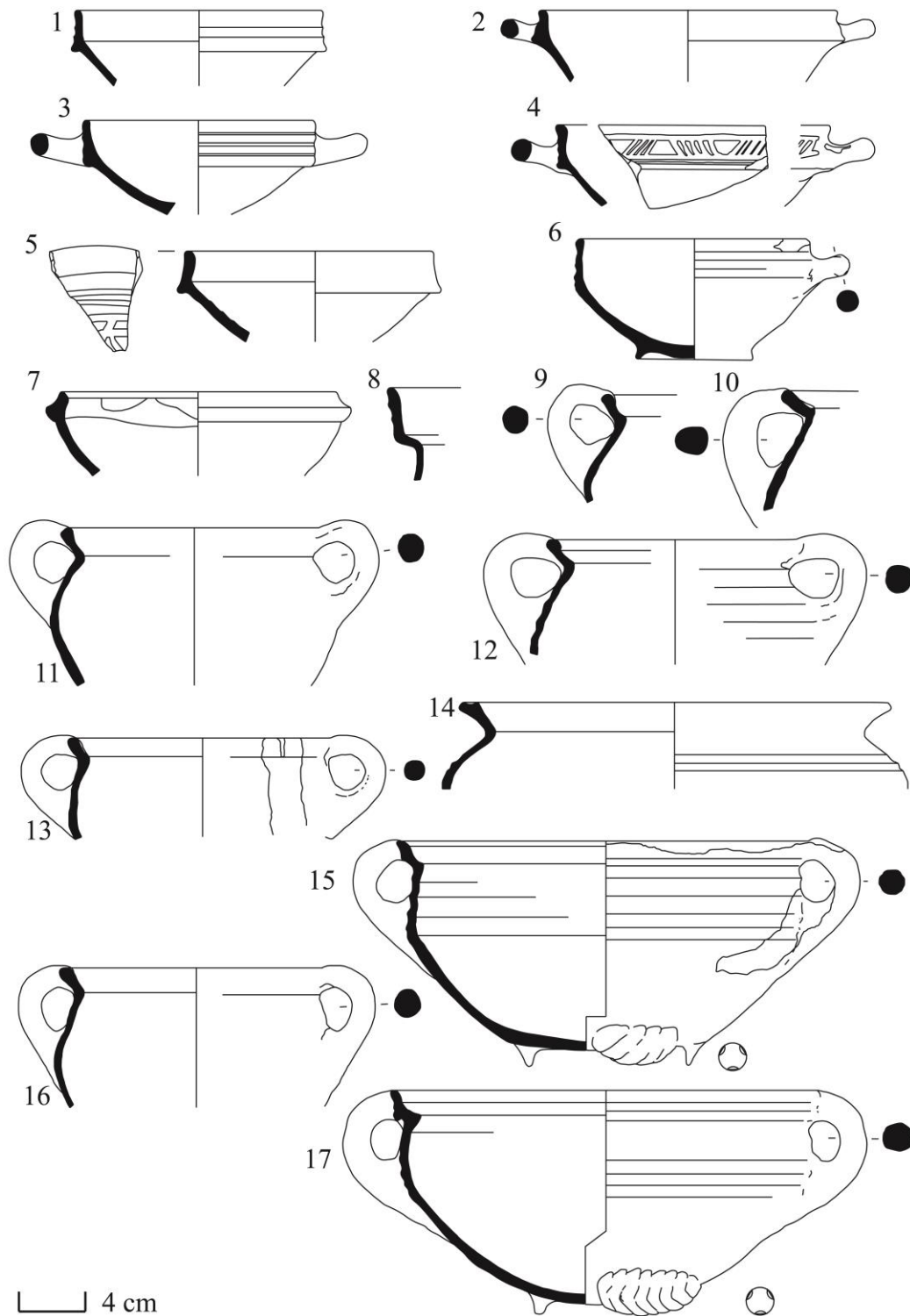


Figure 37 Chute [04/MIKA/9/10]. Local or regional redware pottery. 1-7: porringers, 8: jug, 9-17: cooking pots.

Only one **jug** was recognised. It is characterised by a ribbed rim on a narrow collar (Figure 37:8). The **double-handled cooking pot** is, once again, the most dominant form. The 35 individuals are characterised by at least one of the following features: an outstanding collar, two vertical handles, a thumbed base, traces of soot, a colourless lead glaze and small dimensions (Figure 37:9-17, Figure 38:1, 3). One fragment stands out by

the presence of two horizontal handles (Figure 38:2). The domination of cooking pots with small volume is more pronounced in this chute. Eighteen individuals (69,2%) have a diameter of 13 to 17cm. However, with a width/height ratio of 1:0,5 to 1:0,6, the measurable cooking pots in this assemblage are rather low in comparison to chute [04/MIKA/1/2] and the chutes in the upper court (Table 8).

Table 8 Width/height ratio cooking pots (cm), data upper court from De Clercq *et al.* (2007, 8).

	upper court			[04/MIKA/1/2]		[04/MIKA/9/10]		
width	11	15	20	12	30	15	28	28
height	8	11	15	9.1	22.3	9.4	14.2	14.9
ratio	1:0.73	1:0.73	1:0.75	1:0.76	1:0.74	1:0.63	1:0.51	1:0.53

Eight **frying pans** were found (Figure 38:4-11). They all have a pouring lip, a pinched handle, a thorn on the transition to a convex base and lead glaze on the inside. Based on form and width/height ratio two groups can be distinguished: the typical wide shallow type on a slightly-convex base (Figure 38:4-7) and a smaller and deeper type on a flat or slightly-concave base (Figure 38:8-11). The rim can either be outstanding and thickened or have a more complex design. The **basin** is characterised by a Y-shaped section of the rim (De Groot 2008a, 284-285) and thumb impressions on an applied clay strip underneath (Figure 38:12, Figure 39:1). A horizontal handle probably belongs to this form type (Figure 38:13). Three **bowls** were present in this assemblage. Two subtypes can be distinguished. Bowls having a rim with upright lip, hemispherical body and convex base on a footring form the first subtype (Figure 39:2-3). A second type can be seen as a variant and has a base on four thumbs (Figure 39:4). Seven **large carinated bowls** are of a local or regional origin. They have a strap-shaped rim, wide pouring lip and a convex base on thumbs (Figure 39:5-11). One *teel* is produced in a different fabric and has a deviant design with a strong sickle-shaped rim (Figure 40:1). This micaceous fabric, likely originating from the formation of Tegelen, together with the particular design suggest a provenance from or around Bergen op Zoom. One individual was identified as a **colander** (Figure 40:2). Its rim with upright lip and hemispherical body reminds us of the bowl type. Another fragment (Figure 40:3) indicates that this form type was equipped with handles. **Chamber pots** are mostly characterised by the presence of urea residue. Only one individual was present in this assemblage (Figure 40:4). The fragment has a rim with upright lip and one vertical handle. Moreover, the body's centre of gravity is rather low and its base is supported by a footring. Finally, the **ointment jar** is represented by two individuals. The fragments have a simple rim on an outstanding collar with concave-sided body

(Figure 40:5-6). A base fragment may also be interpreted as part of an ointment jar (Figure 40:7).

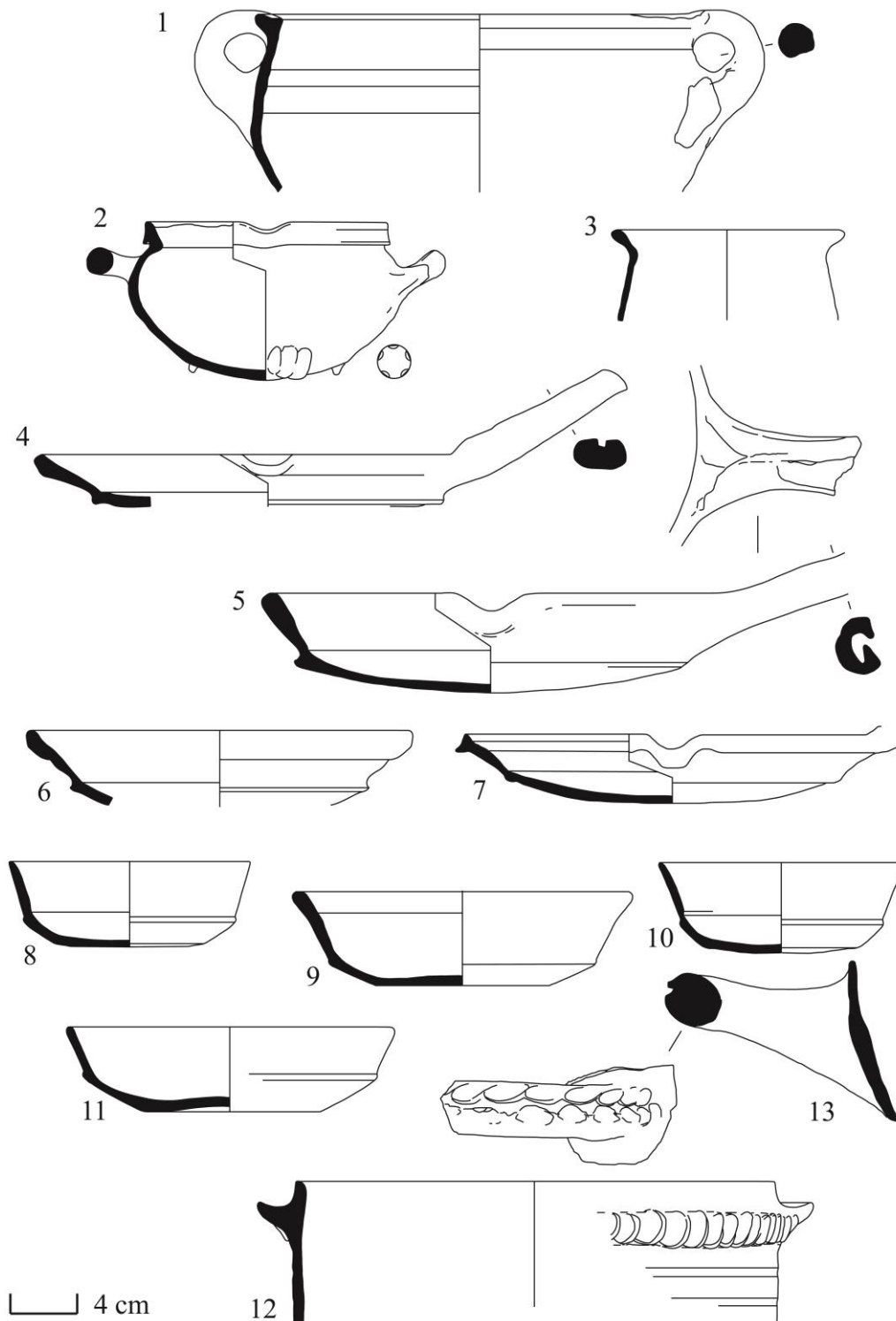


Figure 38 Chute [04/MIKA/9/10]. Local or regional redware pottery. 1-3: cooking pots, 4-11: frying pans, 12-13: basins.

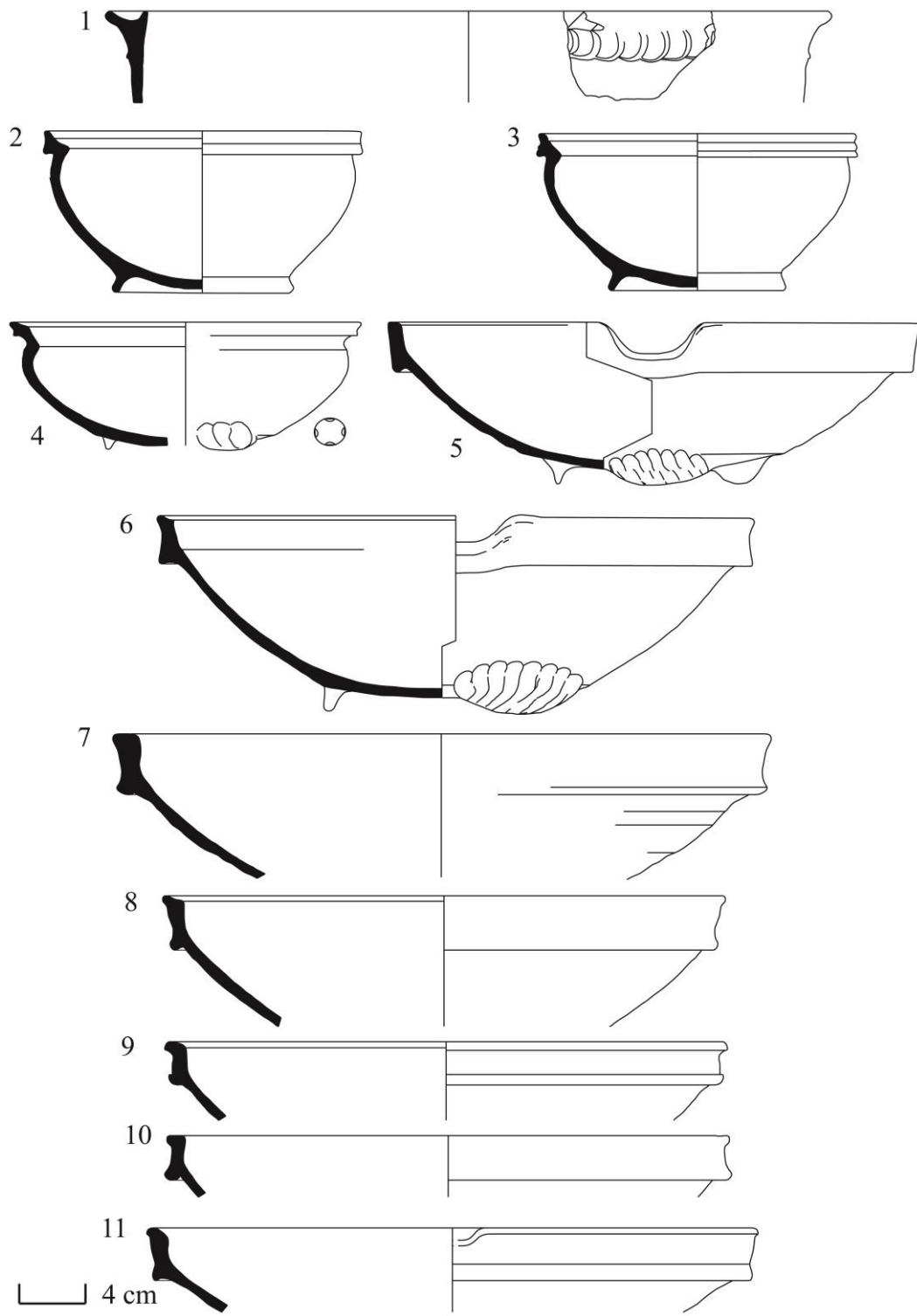


Figure 39 Chute [04/MIKA/9/10]. Local or regional pottery. 1: basin, 2-4: bowls, 5-11: large carinated bowls.

4.2.4.2.2 Greyware

The fabric is similar to the one in chute [04/MIKA/1/2]. Two individuals were counted. Unfortunately, their fragmentary state does not allow any form identification.

4.2.4.2.3 Whiteware

The whiteware category is represented by one individual, a **skillet** (Figure 40:8). It is characterised by an upright rim with thorn, pouring lip, massive handle and colourless lead glaze on the inside. The fabric is soft, cretaceous and has a dense, fine and sandy grain.

4.2.4.2.4 Tin-glazed ware

Only two of the four tin-glazed individuals can be identified with certainty. The first one is a maiolica **albarello**, characterised by a rounded rim, cylindrical body with two thorns and a concave base (Figure 40:10). In the centre, a yellow zigzag line runs along a series of blue V's. This combination of yellow and blue is typical of the late 16th century (Vandenberghe 1983, 81; De Clercq *et al.* 2007, 14; Veeckman 2010, 180-181). A parallel has been found in Antwerp (Dumortier 2002a, 41, fig. 19). A fragment of a **dish** has an outwardly-bent rim with upright lip (Figure 40:9).

4.2.4.2.5 Stoneware

Stoneware is the best represented import category with five individuals. Forms are restricted to table vessels: jugs and a tankard. This **tankard** has an upright rim, vertical handle, ribbed body and concave base (Figure 40:11). The preservation of its pewter lid which contains a punched inscription with the initials AD is remarkable. Although it is highly hypothetical, this may refer to a canon with the name Adolf d'Hooge who is known to have lived at the castle in 1578-1579, *i.e.* before its military occupation (Van Vooren 1987, 55, 60). The other individuals are **jugs** (Figure 40:12-15). Several subtypes can be distinguished. They are typical for the second half of the 16th century or even late 16th century (Hurst, Neal and van Beuningen 1986, 200, 202, 205; Gaimster 1997, 224-226). Two jugs were gauged (Figure 40:13-14). One lead gauge is still preserved in place (Figure 40:13).

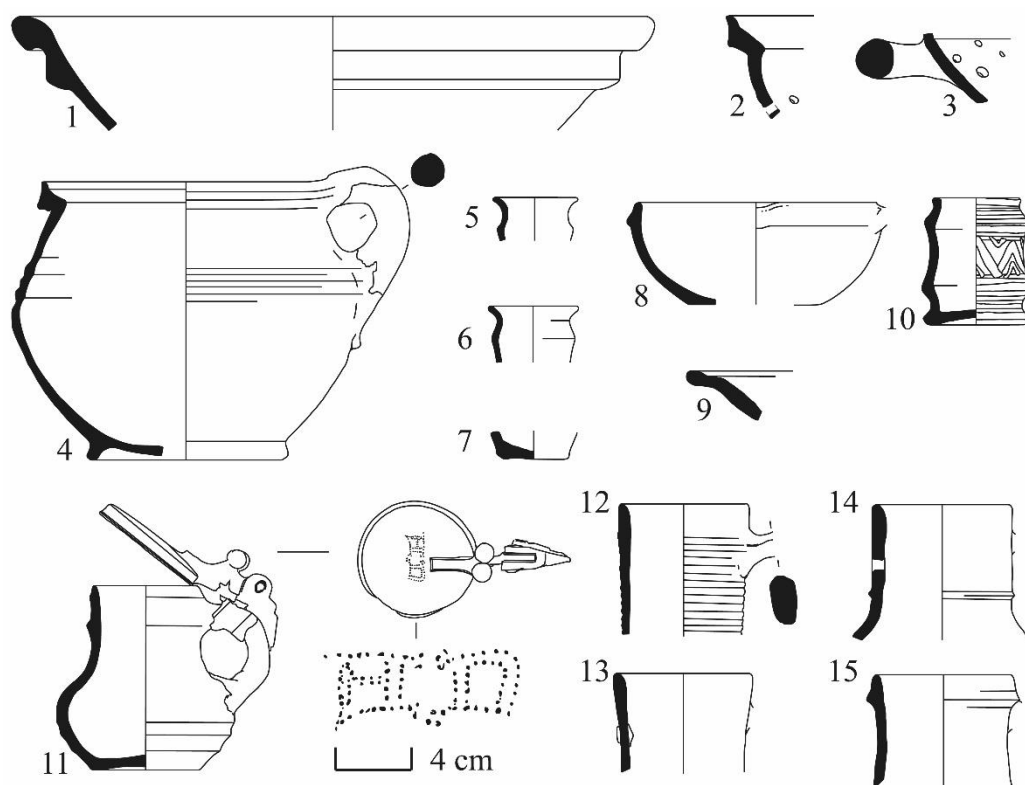


Figure 40 Chute [04/MIKA/9/10]. Imported redware pottery. 1: large carinated bowl. Local or regional redware pottery. 2-3: colanders, 4: chamber pot, 5-7: ointment jars. Imported whiteware pottery. 8: skillet. Low Countries maiolica. 9: albarello, 10: dish. Rhenish stoneware. 11: tankard, 12-15: jugs.

4.2.5 Interpretation and discussion

The sampling strategy that was applied during the excavations (see ‘4.2.2 Sampling strategies and taphonomy’) allows us to reconstruct the taphonomy of the garderobe chutes. By joining pieces of pottery from different levels, one can obtain an insight into the deposition of these ceramics (Figure 41). On the basis of this method, chute [04/MIKA/1/2] may have developed in several stages. However, this development occurred in a short span of time, as will be exemplified further below. In contrast to the former chute, sherds from the upper and lower levels of chute [04/MIKA/9/10] joined to form complete or almost complete vessels. We should admit, however, that the frequency at which fragments from the artificial spits could be combined is rather low, making the above assumption strongly hypothetical.

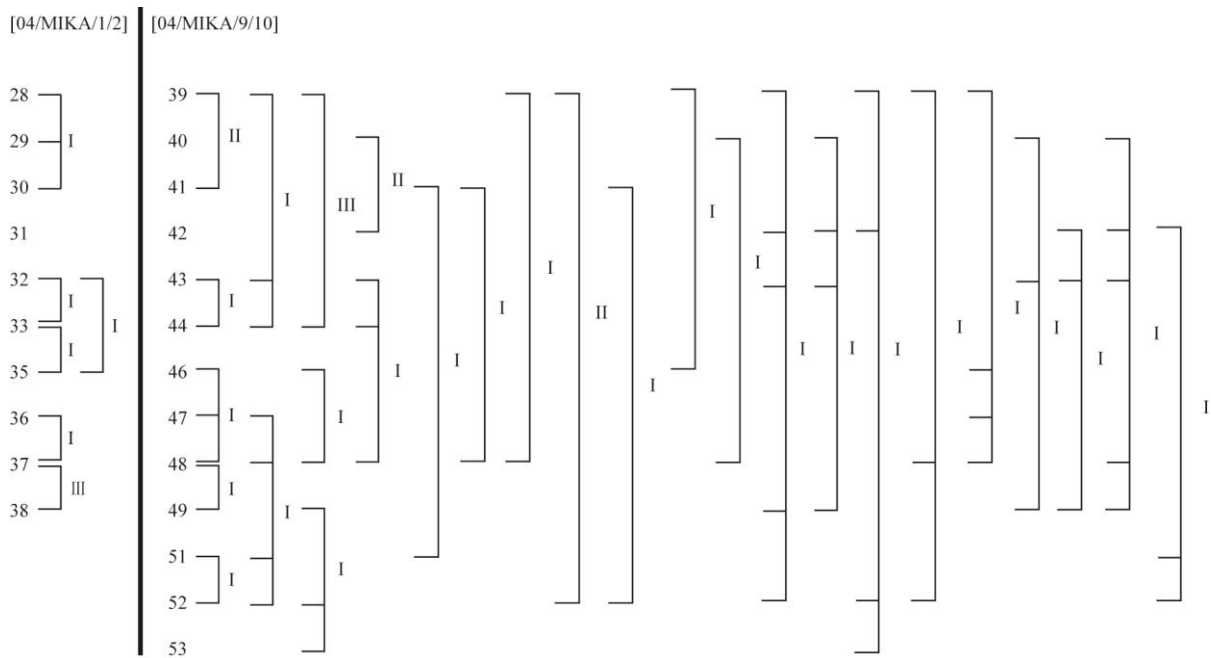


Figure 41 The taphonomy of garderobe chute [04/MIKA/1/2] (left) and [04/MIKA/9/10] (right). The Arabic numerals stand for the artificial spits, the Roman numerals for the frequency at which sherds from these levels could be combined.

The local and regional ceramics in chute [04/MIKA/1/2] provide a broad dating in the 16th century. This dating is confirmed by the find of a mark on a pewter bowl that was also found in this chute. It consists of a crowned hammer. This mark was used until c. 1575 (Klomp 1999, 285; Linders 2010, 28). Imported pottery allows this dating to be refined to the second half of the 16th century. The garderobe chute is characterised by a high degree of refraction and few complete examples, allowing us to presume a secondary deposition. This deposition may have occurred in several stages.

The proportion of greyware in this assemblage is somewhat surprising as the production of this type of pottery halted during the second half of the 16th century (De Groote 2008a, 299). Furthermore, there is a presence of ointment jars and a lack of chamber pots and stoneware drinking vessels, although the latter could be explained by the growing popularity of glass (De Clercq *et al.* 2007, 20). The few imported ceramics may indicate a limited supply network. And, finally, the amount of small-sized cooking pots is much higher than average. The material in itself does not justify an in-depth socio-economic interpretation. But compared with the chutes of the upper court, a same basic composition of the ceramic assemblages can be observed (Table 9). For the upper court chutes the whole assemblage was studied, including glass vessels, coins and jettons, metal objects, lead shot, animal remains, fruits and seeds, pollen and charcoal (De Clercq *et al.* 2007). Through the combination of the archaeological information with the historical record about the military occupation of the castle (1578-1590), the reflection of a war context could be assumed.

Table 9 Comparison of form types in the castle's garderobe chutes, data upper court from De Clercq *et al.* (2007, 8, table 1, 15, table 2)

	Chute [A]	Chute [B]	[04/MIKA/1/2]	[04/MIKA/9/10]
cooking pot	25.0%	14.7%	58.2%	27.3%
skillet	9.8%	2.9%	2.2%	4.7%
frying pan	2.2%		0.7%	6.3%
lid	1.1%			
colander	1.1%	2.9%		0.8%
large carinated bowl	4.3%	20.6%	14.9%	6.3%
bowl	4.3%			2.3%
plate			3.7%	6.3%
porringer	6.5%	8.8%	3.0%	10.9%
dish	4.3%	8.8%		0.8%
chamber pot		8.8%		0.8%
tankard	2.2%	2.9%		0.8%
jug	3.3%	2.9%	1.5%	3.9%
oil jug	5.4%	5.9%		
basin				1.6%
ointment jar	21.7%	11.8%	1.5%	2.3%
bird pot	2.2%	2.9%		
spindle whorl	1.1%			
flowerpot			1.5%	
other/unknown	5.4%	5.9%	12.7%	25.0%

If the ceramics were consumed in times of war, the large number of small cooking pots *may reflect a system in which individuals had to prepare their own meal and had to carry their own personal vessel* (De Clercq *et al.* 2007, 20). The assumption of a military presence could further be confirmed by the finds of granite cannonballs and building debris. It indicates that the lower court was damaged during the Eighty Years' War (De Clercq, Pype and Mortier 2004, 289). Based on the ceramics, the following questions can be asked: did the lower court, in addition to the upper court, accommodate soldiers or do we merely see the reflection of a kitchen context in a period of civilian occupation?

The locally- or regionally-produced forms in the other lower court chute [04/MIKA/9/10] provide a general dating in the second half of the 16th century. Several imported items can be dated in the late 16th century, such as some tin-glazed vessels. In contrast to the former chute, the material is characterised by a rather low degree of refraction and many complete shapes. However, as many sherds from the upper layer connect to fragments of the deepest layer, it concerns no primary deposition. This difference may reflect different patterns of refuse disposal.

A comparison of both chutes in the bailey displays both resemblances as differences. Contrasting chute [04/MIKA/1/2], is the presence of a chamber pot and some richly-decorated forms in chute [04/MIKA/9/10]. Moreover, a second difference is situated in the presence of small frying pans and the much larger amount of porringers. Finally, the larger share of imports and one individual originating from Bergen op Zoom may indicate a broader supply network. There are, however, also some resemblances as is clear from the large number of small cooking pots and ointment jars. If the material is partly civil, the historical sources give two possible options. First it might relate to the period immediately before the military occupation of the castle, but already during the period of the Eighty Years' War. This hypothesis could be confirmed by the tankard with the initials AD. Or, secondly, it could point to the civilian interlude after 1590.

We can conclude that both chutes from the lower court have in general a comparable composition and dating as those of the upper court, which allows a first interpretation of the socio-economic situation during the Eighty Years' War. As similar well-dated assemblages are not yet available in the region (De Clercq *et al.* 2007, 51), they form a chronological and typological anchor point for further research. The general observations made during the analysis of the garderobe chutes of the upper court and the connected interpretations seem also to apply to the lower court chutes.

As the established economic networks broke down during this period of war, the expression of status and identity through the consumption of food and material objects must have been difficult. However, several indications of elite consumption were found (De Clercq *et al.* 2007, 52). This is combined with evidence of a military presence, such as lead shot and some specific ceramic indications. Ointment jars may have been used by a surgeon, doctor or pharmacist to treat wounded soldiers and the large number of small cooking pots may indicate the consumption of food in individual portions, what is

expected in a military context (De Clercq *et al.* 2007, 20). Finally, the interpretation is in line with the historical evidence. In contrast to the original elite occupation phases, there was no need to empty both chutes in times of war.

4.3 Moat, and minor assemblages on upper and lower court

4.3.1 Introduction

The following chapter mainly deals with the ceramics recovered from the castle's moat. This moat was approximately 18 metres wide, narrowing to a width of 12 metres between the upper and lower court, and with a depth of *c.* 2.5-3 metres below the current surface (De Clercq, Pype and Mortier 2004, 283, 285). In view of the difficult circumstances under which the site was dug (Figure 42), it was opted to excavate the moat in different units. Since no vertical stratigraphy could be observed, the material of each unit was recovered in bulk. Excavations started in 2002 in the zone immediately south of the upper court's entrance gate, and expanded a year later to the southern part of the upper court. The campaign of 2004 was mainly focussed on the lower court, but also explored the northern part of the upper court. The numbering of the assemblages follows this excavation strategy, with the first two numbers of the code referring to the year in which it was dug.



Figure 42 Waterlogged conditions during the excavations of the lower court in 2004.

Although the analysis below mainly deals with ceramics from the moat, it also comprises some smaller assemblages that were found on the upper and lower court. When the moat's ceramic collection is discussed below, numbers and percentages thus also take into account these latter assemblages. Despite the fact that these assemblages are taphonomically different, I have opted to group them together as it generally concerns low numbers of pottery, providing only broad chronological indicators. Rather than throwing these datasets overboard, their inclusion still contributes to the eventual functional interpretation made below.

As was already mentioned, no vertical stratigraphy was present in the castle's moat. The broad dating of the assemblages, from the second quarter of the 15th century to the late 17th/early 18th century, makes that the finds will be discussed in less typological detail, compared to the garderobe chutes above. However, one could speak of a horizontal stratigraphy, since the pottery is not evenly spread across the site (see Figure 43). The focus will therefore be on the categories and forms of pottery that are present, and their spatial distribution in the excavated units. In this way, a certain periodisation comes to the front, and some suggestions can be made toward a spatio-functional interpretation of the castle site. A comparison with some of the other material categories (leather, clay pipes, coins, tokens and coin weights, and metal military objects) allows the evaluate the moat as an assemblage in itself. Although moats are often estimated to be only of a

secondary value because of their complex tafonomic genesis and, hence, unclosed contextual nature, I will argue that this type of assemblage can indeed deliver new information and substantially add to the understanding of the history of a site, if certain methodological steps are followed. Rather than a downside, the large scale of the collection was experienced in a positive way, providing insights not possible on the basis of some small assemblages, spread across the site.

The importance of the moat in the Middelburg collection speaks from Table 10. As the great majority of finds derive from this unclosed feature, it was sought how to make sense out of almost 35000 sherds that are meaningless in themselves. The excavation strategy (in spite of the unfavourable circumstances) in combination with the applied methodology allows to render these fragments significant, admittedly to a less certain extent than with the garderobe chutes above.

Table 10 Proportions of the different assemblages in the ceramic collection of Middelburg's castle. There is a slight variation in numbers, compared to the quantifications below, because of an individual with matching fragments both in the moat as in one of the garderobe chutes. Also the well (see '4.4 Well') is included as an upper court assemblage.

	garderobe chutes		moat	other assemblages		total
	upper court	lower court		upper court	lower court	
sherds	736	2326	34975	1287	42	39366
		3062			1329	
MNI	126	262	5905	218	2	6513
		388			220	
sherds%	1.87	5.91	88.85	3.27	0.11	100
		7.78			3.38	
MNI%	1.93	4.02	90.66	3.35	0.03	100
		5.96			3.38	

4.3.2 Quantification

On the basis of the quantification methods chosen, sherd count and a rim-based MNI, a total of 36210 sherds were counted, representing a minimum of 6114 individuals (Table 11). Brokenness (Orton, Tyers and Vince 1993, 169), with an average of c. 6 sherds per individual, is largely determined by the dominant redware category. This degree of fragmentation is rather moderate, and compares well to the other moat assemblage in this thesis, the *Blauwhof* (see '7.3 Quantification').

Beside redware, eight other ceramic categories were found to be present. Whereas redware pottery comprises both locally-produced and imported vessels (Dutch and

Spanish), greyware is solely of a local or regional origin. All other categories are imported. The present-day Netherlands are the main pottery provider, producing whiteware and (most of the) tin-glazed ware. Although tin-glazed ceramics were continued to be made in the Southern Netherlands, the larger part of non-Dutch maiolica and faience should be provenanced in the Mediterranean, more specifically in Italy, Portugal and Spain. The Rhineland follows the Netherlands as main pottery production region. Werra-, Weser- and Hafnerware are only present in relatively small numbers. Rhenish stoneware, however, is the largest import category in sherds count. Only one stoneware individual was identified as a Bouffiuoux product. A final category, porcelain, was imported over the longest distance, originating from China.

These nine different ceramic categories represent a wide range of forms (Table 12), used in cooking, storage, hygiene, lighting, heating, playing, and even decoration and melting metals. This form diversification is characteristic of early modern times (Verhaeghe 1988b, 108). When these forms are lumped into greater functional groups (Table 13), vessels related to food preparation are most dominant, mainly composing of a large number of cooking pots. This group is respectively followed by those vessels that probably functioned in the kitchen and for storage, at the table, and for hygiene. A final category groups those vessels that were used for keeping birds, lighting, playing, and heating, to name but some examples.

Table 11 Quantification of ceramic categories.

	sherds	MNI	sherds%	MNI%	brokenness
redware	31362	5306	86.61	86.78	5.9
greyware	53	18	0.15	0.29	2.9
whiteware	1066	140	2.94	2.29	7.6
Hafner	20	3	0.06	0.05	6.7
tin-glazed ware	1601	375	4.42	6.13	8.7
stoneware	1981	227	5.47	3.71	4.3
Werra	59	25	0.16	0.41	2.4
Weser	62	19	0.17	0.31	3.3
porcelain	6	1	0.02	0.02	6.0
total	36210	6114	100	100	5.9

Table 12 Quantification of ceramic forms (MNI).

	redware	greyware	whiteware	Hafner	tin-glaze	stoneware	Werra	Weser	porcelain	total	total%
basin	41	0	0	0	0	0	0	0	0	41	0.67
bird pot	5	0	0	0	0	0	0	0	0	5	0.08
bottle	0	0	0	0	0	1	0	0	0	1	0.02
bowl	11	0	3	0	5	0	0	0	0	19	0.31
candlestick	1	0	0	0	0	0	0	0	0	1	0.02
chafing dish	1	0	3	0	0	0	0	0	0	4	0.07
chamber pot	23	0	7	0	0	3	0	0	0	33	0.54
colander	31	0	0	0	0	0	0	0	0	31	0.51
compartmented trough	3	0	0	0	0	0	0	0	0	3	0.05
container	1	0	0	0	0	0	0	0	0	1	0.02
cooking pot	2317	4	32	0	0	0	0	0	0	2353	38.49
cup	0	0	1	0	1	2	0	3	0	7	0.11
drinking cup	0	0	0	0	0	1	0	0	0	1	0.02
dripping pan	9	0	0	0	0	0	0	0	0	9	0.15
escudilla	0	0	0	0	1	0	0	0	0	1	0.02
flask	0	0	0	0	0	2	0	0	0	2	0.03
flowerpot	21	0	0	0	0	0	0	0	0	21	0.34
fluted dish	0	0	0	0	13	0	0	0	0	13	0.21
form	0	0	11	0	0	0	0	0	0	11	0.18
frying pan	46	0	0	0	0	0	0	0	0	46	0.75
handled jar	9	0	0	0	0	0	0	0	0	9	0.15
jar	2	0	1	0	0	0	0	0	0	3	0.05
jug	211	1	29	0	3	184	0	2	0	430	7.03
klapmuts	0	0	0	0	0	0	0	0	1	1	0.02
large carinated bowl	1039	5	1	0	0	0	0	0	0	1045	17.09
lid	34	0	0	0	0	0	0	0	0	34	0.56
mask	1	0	0	0	0	0	0	0	0	1	0.02
melting pot	2	0	0	0	0	0	0	0	0	2	0.03

mug	0	0	0	0	0	1	0	0	0	0	0	1	0.02
mustard pot	0	0	0	0	0	0	1	0	0	0	0	1	0.02
oil jug	0	0	0	0	0	0	6	0	0	0	0	6	0.10
oil lamp	2	1	2	0	0	0	0	0	0	0	0	5	0.08
ointment jar	44	0	0	0	0	11	0	0	0	0	0	55	0.90
<i>Pinte/Schnelle</i>	0	0	0	0	0	0	9	0	0	0	0	9	0.15
plate	457	0	0	0	3	311	0	22	9	0	0	802	13.12
play disk	33	0	0	0	0	0	0	0	0	0	0	33	0.54
porringer	427	1	20	0	0	17	0	3	5	0	0	473	7.74
sieve	2	0	0	0	0	0	0	0	0	0	0	2	0.03
skillet	264	0	3	0	0	0	0	0	0	0	0	267	4.37
spindle whorl	0	0	0	0	0	0	1	0	0	0	0	1	0.02
spouted jar	0	0	0	0	0	0	3	0	0	0	0	3	0.05
storage jar	42	0	1	0	0	0	7	0	0	0	0	50	0.82
<i>tazza</i>	1	0	0	0	0	0	0	0	0	0	0	1	0.02
test	1	0	0	0	0	0	0	0	0	0	0	1	0.02
toys	1	0	3	0	0	0	0	0	0	0	0	4	0.07
unknown	224	6	23	0	0	12	7	0	0	0	0	272	4.45
total	5306	18	140	3	375	227	25	19	1	6114	100		

Table 13 Quantification by probable function.

	MNI	MNI%
food preparation	2720	44.49
kitchen/stock	1585	25.92
tableware	1314	21.49
hygiene	129	2.11
other/unknown	366	5.99
total	6114	100

The ceramics are not evenly spread across the castle site (Figure 43). The zone to the east of the lower court (assemblages [04/MIKA/8] and [04/MIKA/11]) contains the highest number of sherds and individuals. Also the areas to the north ([04/MIKA/7]) and the east ([04/MIKA/5]) of the lower court's rectangular expansion seem to have been preferred places for refuse disposal. The 1702 map by Senneton de Chermont (Figure 30) helps to understand why this is the case, as this zone is the only one with structural remains still standing. Other buildings on the lower court have been replaced by earthworks, following the destructions inflicted during the religious troubles. A remarkable concentration can furthermore be observed near the upper court's northern tower ([04/MIKA/12]). For the upper court, the unit next to the bridge ([02/MIKA/1-38]) and the one to the west of the southern tower ([03/MIKA/45]) also counted considerable numbers of ceramics. In between these two assemblages, only few finds were recovered. The limited number of vessels in this zone, consisting of assemblages [03/MIKA/44] and [03/MIKA/48], could perhaps be explained by earthworks erected on the adjoining part of the castle in the late 16th or early 17th century, as will be argued on numerous occasions below.

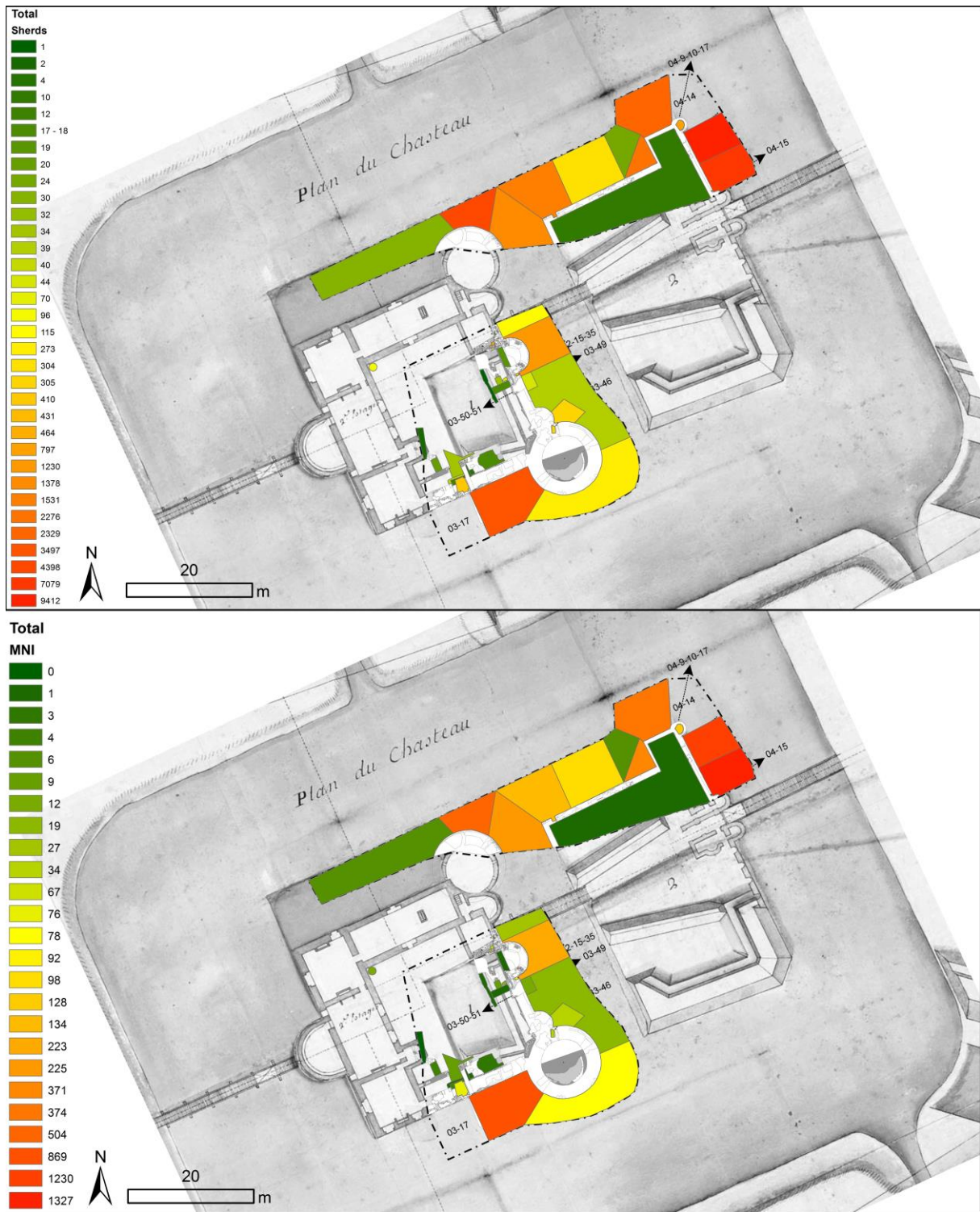


Figure 43 Total number of sherds and individuals at Middelburg's castle according to excavations units.

4.3.3 Crossfits

An issue that deserves particular attention is the occurrence of crossfits, as it makes us think about the depositional mechanisms and stratigraphic relationships at Middelburg's castle (Brown 1985, 35).

The matching of fragments across different units was not what was aimed for when processing the assemblage. The size of the collection made this unfeasible within the given time frame. Only for vessels with a distinctive design or decoration, crossfits were registered, resulting in the distribution pattern shown in Figure 44. This map shows a clear distinction between the upper and lower court in the occurrence of crossfits. However, the lack of crossfits at the upper court does not necessarily have to reflect a different pattern of refuse disposal between both parts of the castle. It may just be that there were no finds with a distinctive design or decoration at the upper court, hindering the find of crossfits. For the upper court, only one assemblage [03/MIKA/44/45] hints at possible crossfits. It is however more likely that it concerns a writing error, and that the 45 must be replaced by the adjacent assemblage 48. The assemblage is therefore left out of this crossfit discussion.

For the lower court, finds from different units mend together, sometimes over long distances. A vessel composed of fragments from assemblages [04/MIKA/1/2] and [04/MIKA/8] serves as the best example of these distances, as the pieces were found more than 25m apart. What are the implications of this observation, in terms of the functional interpretation of the castle domain, and which processes could explain the distribution of sherds across the site?

The crossfits registered between adjacent units (e.g. [04/MIKA/8] and [04/MIKA/11]) pose little interpretative problems. However, the mending of fragments between non-adjointing units is more problematic. It seems as if, during certain periods, broken ceramics were not immediately thrown in the moat, but were first gathered in one or multiple places before being discarded. The effect of this practice of refuse disposal on the functional interpretation of different zones in the castle must, in my opinion, be mitigated as there are many distinctive pots that do not mend with fragments from other units. Encouraging is also that there are no crossfits to be found between upper and lower court, allowing at least a minimal level of functional interpretation.

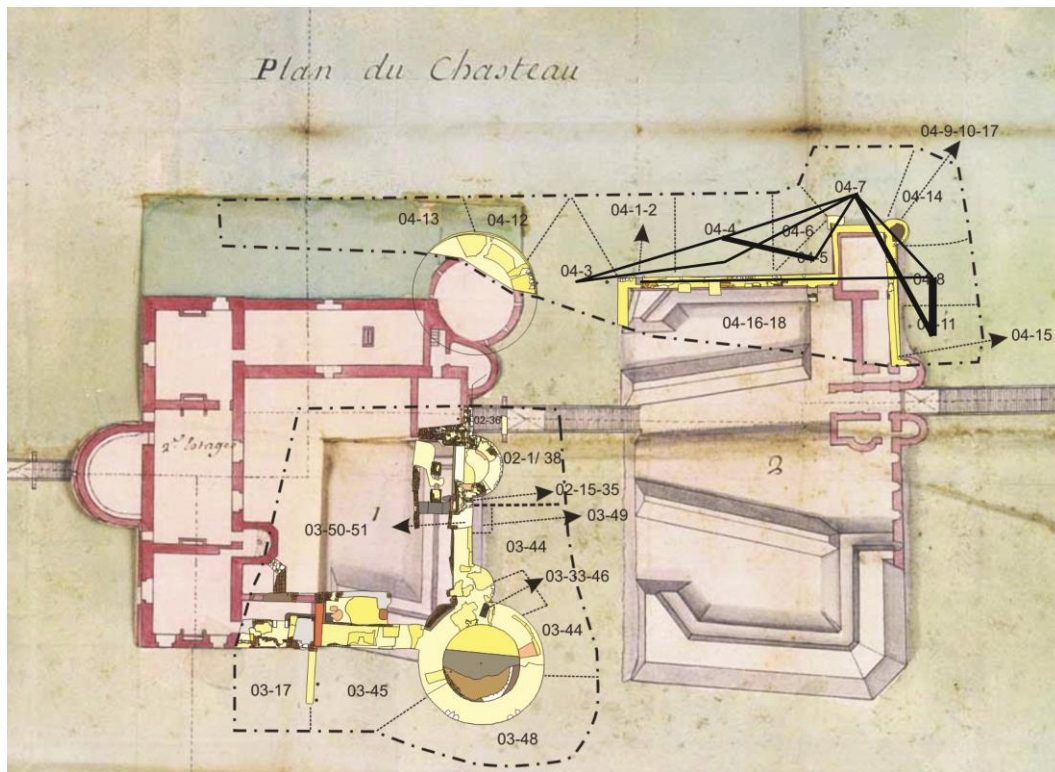


Figure 44 Crossfits at Middelburg's castle. The thickness of the lines is an indicator of the frequency by which sherds of different units match.

4.3.4 Fabrics and typology

4.3.4.1 Redware

Redware is by far the best represented category. A total of 31362 sherds, representing 5306 individuals were counted. As such, the ware type respectively makes up 86.61% and 86.77% of the moat's entire ceramic collection. This chapter comprises both the local/regional and imported redware finds, as a distinction is generally hard to make. Where possible, the Dutch provenance of vessels will be indicated. However, following the issues in provenancing this ware type, I have refrained from expressing the presence of Dutch redwares in absolute numbers or percentages.

Thirty-one different forms were identified: 11 bowls, 33 play disks, 457 plates, 2 melting pots, 46 frying pans, 264 skillets, 5 bird pots, 427 porringers, 34 lids, 21 flowerpots, 211 jugs, 41 basins, 2 sieves, 1039 large carinated bowls, 2317 cooking pots, 23 chamber pots, 42 storage jars, 1 candlestick, 44 ointment jars, 9 dripping pans, 3 troughs with two compartments, 31 colanders, 9 handled jars, 1 chafing dish, 2 oil lamps, 1 container, 1 *test* (a coal holder/brazier), 1 mask, 2 jars, 1 *tazza*, 1 miniature olive jar. The form type of another 224 vessels remained undetermined.

The distribution of this redware pottery at Middelburg's castle is uneven (Figure 45). The main concentrations are to be found to the east of the lower court, to the north of

the upper court's northern tower and to the southwest of its southern tower. The eastside of the upper court shows remarkable low densities of redware ceramics.

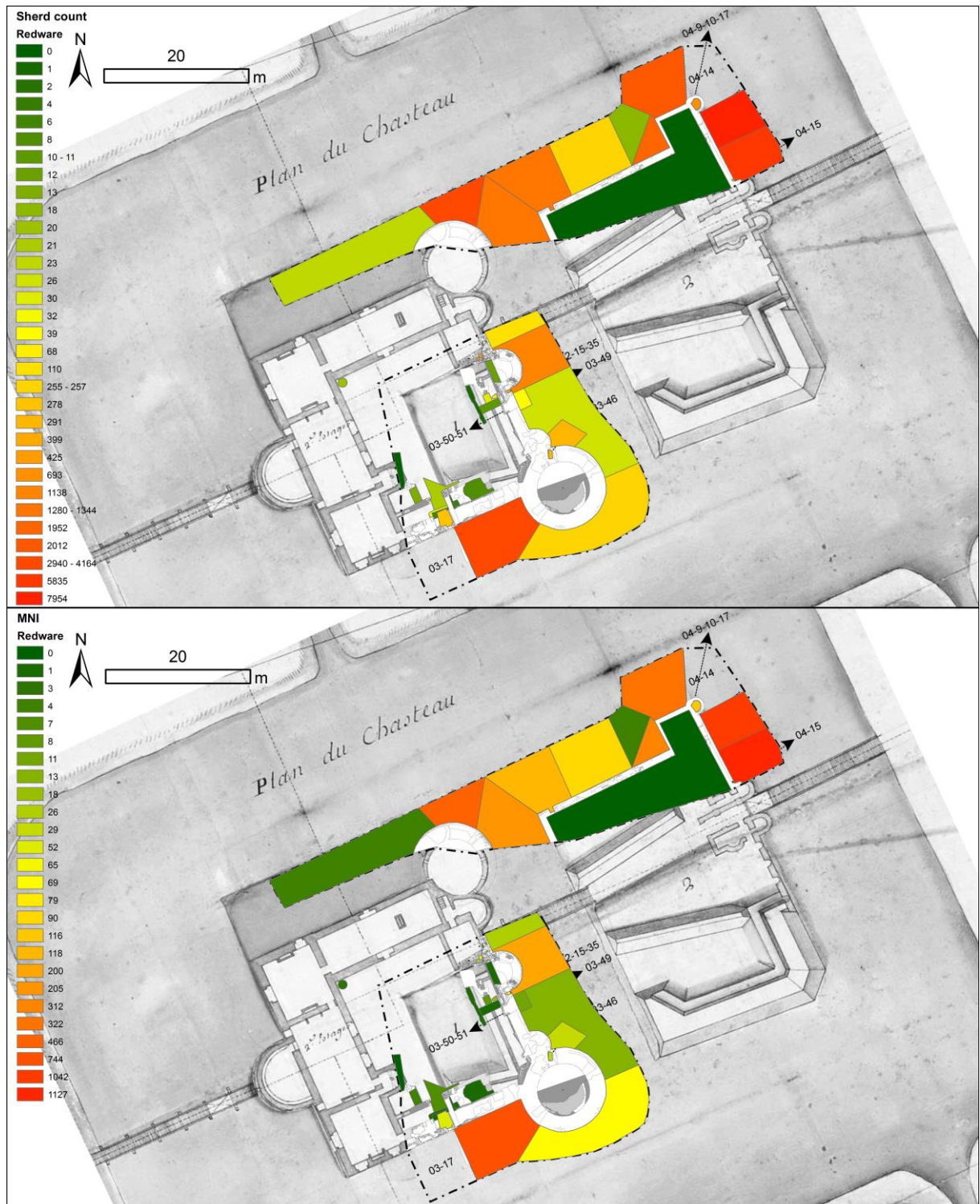


Figure 45 Distribution of redware pottery at Middelburg's castle.

4.3.4.1.1 Ceramics with an outdoor use

A first form has a flask-like design (Figure 46:1). One individual was counted in assemblage [04/MIKA/7], but a base fragment was also present in [02/MIKA/38]. Its function has been explained as a quicklime grenade, blinding the enemy when thrown and broken, or as a container for something in a local measure, since many vessels bear marks (Roy and Barbé 1998, 78-79). The hypothesis of this form being a grenade has previously been debunked by Despriet (2005, 32): the archaeological assemblages in which they are found are never linked to military activities, and it seems of little use to mark a throw-away article. If the vessel was thus indeed a container, it must have been used to store dry goods (since it is unglazed) of high value (since it was worthwhile marking it). Possible contents are spices or edible seeds (Despriet 2005, 34). Residue analysis holds further promise. The distribution of this form seems to be limited to what is more or less the Spanish Netherlands. Moreover, they are mainly found on castles or other high-status (religious) sites (Despriet 2005, 8, 10). However, one must be wary of circular reasoning, since it are those sites that are most frequently investigated and published. Some examples can be found in Brussels (Van Eenhooge 1999, 292, 294, fig. 24:169), Bruges (Hillewaert and Verhaeghe 1991, 211), Mechelen (De Poorter 2010, 45, fig. 1:4) or Tillegem – misidentified as jug or *drinkuit* – (De Zegher 1989, 152, fig. 42). As mentioned above, the vessels are often marked, in this particular case with gothic letters ‘M’ and ‘b’ in a dotted circle. Whereas the ‘b’ could refer to Bruges, the ‘M’ may point to Mary of Burgundy, countess of Flanders between 1477-1482. A parallel was found in a 16th-century assemblage at the Ghent hospice of Lille (Gubellini and Boniface 2002, 148). Other parallels also point to a 16th-century dating, such as the one in Saint-Omer (Roy and Barbé 1998, 83, 96, fig. 118), Kortrijk – where 18 lead pennies and a pilgrim badge point to a deposition c. 1550 – (Despriet 2005, 5-6), or in an early 16th-century assemblage at the Beaulieu abbey, Petegem (De Groote 2008a, 288, fig. 229). The 16th-century parallels could indicate that the ‘M’ should perhaps be explained otherwise, as Mary of Burgundy was already long deceased by then.

Another form of which the function is not entirely clear, is the trough with two compartments (Figure 46:2-4). Different functions have been suggested (Groeneweg 1992, 219), of which the feeding trough for birds is the most credible one. This interpretation is supported by a find in Ename, where the glaze of only one of the compartments is damaged, possibly from picking seeds, while the other – undamaged – compartment was filled with water (De Groote 2008a, 287). The Middelburg vessels constitute different types, but they are all internally glazed, with a lead glaze also covering the top. Moreover, the part connecting the two compartments is always equipped with a vertical loop handle and is consistently decorated with thumb impressions.

From the trough with two compartments, a link to the bird pot is easily made (Figure 46:5-7). Remarkable is that the only individuals were counted at the upper court.

A notion of status is thus possibly attached to the keeping of starlings. This hypothesis stands in contrast to the depiction of bird pots on modest houses in early modern painting (e.g. *Kermis* – Pieter Balten, Budapest Museum of Fine Arts, dated before 1565). Also contrary to this suggestion, is that some body sherds were found in the lower court assemblage [04/MIKA/8]. However, as will be argued below (see ‘4.3.4.6.2 Italian pottery’), the rectangular extension adjacent to this assemblage possibly had a representative function. Like the vessels in the upper court’s garderobe chute (De Clercq *et al.* 2007, 14, fig. 10:69, 19, fig. 13:109), bird pots with an opening in the base (rather than in the side) seem to be the preferred variant at Middelburg’s castle.

As with bird pots, flowerpots are unglazed (Figure 46:8-12). They are characterised by everted rims with grooved tops, bodies with a cylindrical shape, bases that have multiple perforations and are either flat or equipped with thumbed feet, and, when present, handles of the horizontal loop type. What furthermore marks all flowerpots, is that they are undecorated. This might possibly explain the function of a thus far undetermined vessel (Figure 46:13). It has an oval shape, with an internal lip under which a lead glaze was applied. The exterior is decorated with an incised floral motive, and also the top of the rim has a continuous pattern of incisions. Its fabric does not resemble the bright, iron-rich colours typical of Low Countries products, but leans closer to the brown variants seen with bird and flowerpots. Possibly, this vessel was used as an overpot, in which the dull flowerpots were placed.

A final form that is not immediately associated with an inside use, is the melting pot (Figure 46:14-15). Two individuals were counted, one on the upper court, and another one on the lower court. It is tempting to make a link to the military occupation at the castle. However, this should not necessarily be the case. The only reference for a ceramic melting pot was found at the 17th-century whaling station Smeerenburg, Spitsbergen (Vlierman and Hacquebord 1991, 19-20). Although it does not concern a typological parallel, it indicates that this form is not exclusively found with soldiers.

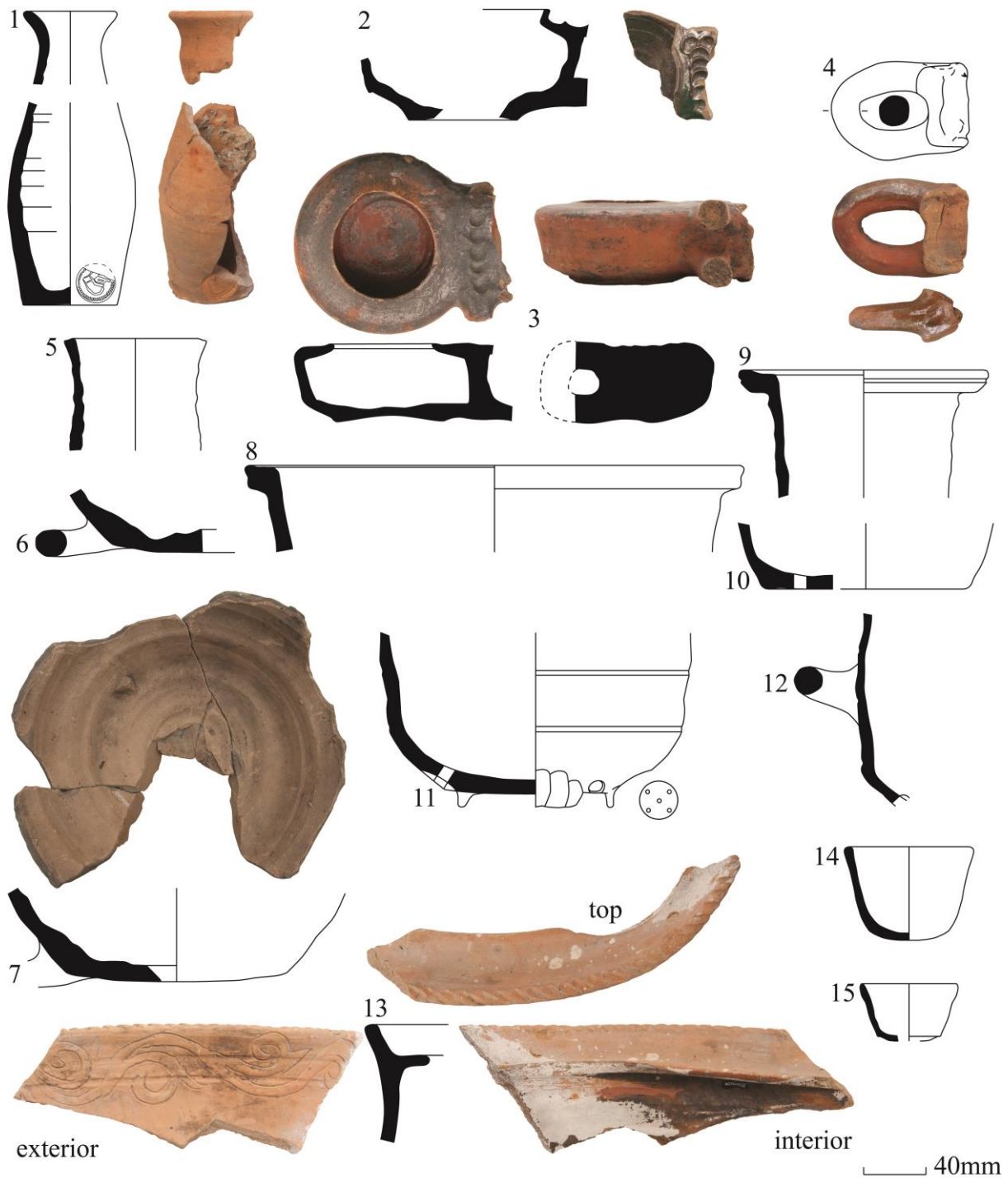


Figure 46 Redware pottery. 1: container, 2-4: troughs with two compartments, 5-7: bird pots, 8-12: flowerpots, 13: undetermined (overpot?), 14-15: melting pots.

4.3.4.1.2 Ceramics related to the personal sphere

A first category of domestic ceramics serves hygienic purposes. The unparalleled high numbers of ointment jars in the garderobe chutes (De Clercq *et al.* 2007, 19) is also reflected in the many finds of such vessels in the moat (44 redware and 11 tin-glazed vessels). In general, two types seem to occur: those with a cylindrical body (Figure 47:1-

11), imitating tin-glazed *albarelli*, and those with a more curvy design (Figure 47:12-31). These profiles show great resemblances to the jars in the chutes (De Clercq *et al.* 2007, 13, fig. 9:49-65, 18, fig. 12: 105-107; Poulain, De Groote and De Clercq 2013, 8, fig. 6:5-8, 15, fig. 11:5-7). These forms were thus certainly in production during the late 16th to early 17th century. However, their production period probably stretched over a longer time span. For the chutes, the myriad ointment jars have been related to the presence of a doctor, surgeon or pharmacist, treating wounded soldiers (De Clercq *et al.* 2007, 20). Another 55 vessels can now be added, supporting this hypothesis.

A following form associated with hygiene is the basin. A first type of basin is easily recognised by its Y-shaped rim (Figure 47:32-34). A strip of clay is often attached externally, under the rim, and decorated with thumb impressions. A parallel in one of the lower court garderobe chutes shows that this form and decoration pattern were certainly in production during the late 16th century (Poulain, De Groote and De Clercq 2013, 13, fig. 9:12, 14, fig. 10:1). On the basis of that clay strip, several other vessels were identified as basins (e.g. Figure 47:35-36). However, they lack in a Y-shaped rim and should possibly be interpreted as storage jars, rather than basins.

Chamber pots can also be relatively easily recognised by their rim design and their low centre of gravity. One vessel is archaeologically complete (Figure 47:37). It has an everted rim, with loop handle and base on a footring. Its lead glaze is highlighted with some copper green specks. Other chamber pots lack in the diagnostic everted rim, having a possibly-thickened rim on an outstanding collar instead (Figure 47:38-39). Nevertheless, they retain that low centre of gravity.

Ceramics used for lighting also constitute but a small percentage of the finds at Middelburg's castle. One oil lamp is relatively well-preserved (Figure 47:40). It consists of a type with a large oil bowl, dating to the 16th century. Depending on the author, parallels are dated in the last decades of that century (Hurst, Neal and van Beuningen 1986, 139) or between 1530-1575 (Bartels 1999, 704, cat. 633). Its base is not preserved, but is generally in the form of a dish (Figure 47:41). Also one candlestick was found to be present (Figure 47:42). Literature on ceramic candlesticks is limited. Hurst, Neal and van Beuningen (1986, 139) note that they became common in the 17th century.

A following form that is possibly connected to the candlestick is a lid (Figure 47:43), decorated with leaves in a white slip, as it may have been part of a so-called candle-maker's trough (De Groote 2008a, 165). A similar vessel is found in an assemblage in Geraardsbergen, and is dated to the first half of the 16th century (Beeckmans and Laurijns 1978, nr. 13). Two other archaeologically-complete lids are also decorated. One is decorated with a pattern of S-scrolls separated by green dots (Figure 47:44). A similar scheme on a jug was dated to the 17th century and provenanced in Holland or Friesland (de Kleyn 1986, 151, plate E). The decoration with another lid is more sober (Figure 47:45). It is but the knob that is indented. A similar finishing can be seen with a lid in one of the upper court garderobe chutes (De Clercq *et al.* 2007, 11, fig. 8:30).



Figure 47 Redware pottery. 1-31: ointment jars, 32-36: basins, 37-39: chamber pots, 40-41: oil lamps, 42: candlestick, 43-45: lids.

4.3.4.1.3 Forms associated with fire

From these lids, it is but a small step to other cooking utensils. Cooking pots are by far the most common form. Dating these vessels is not straightforward. All cooking pots in the castle's garderobe chutes are based on thumbed feet (De Clercq *et al.* 2007; Poulain, De Groote and De Clercq 2013). For cooking pots, the presence of thumbed feet thus seems to be a diagnostic criterion to differentiate between the 16th/early 17th century and the remaining part of that 17th century. It should be stressed that this is a regional trait. In the *Hof van Hoogstraten*, Brussels, cooking pots on tripod bases are already dated in the 16th century. Unfortunately, most vessels in Middelburg do not have their bases preserved. Moreover, plotting fragments with thumbed feet and those sherds that are part of a tripod base on the map of the castle did not show any particular pattern. However, the design of both rim and body provides some additional chronological anchor points. In general, 16th- and 17th-century cooking pots are undecorated and characterised by a wide rim opening on a narrow neck, two vertical loop handles and a lead glaze. However, variations do occur, e.g. as a white slip decoration with S-scrolls and dots (Figure 48:3), or in the form of two horizontal handles (Figure 48:4). Various vessels likely date to the 1500s. For example, two cooking pots (Figure 48:1-2) with a high shoulder and an outwardly-bent rim resemble those of the *Hof van Hoogstraten* (Van Eenhooge 1999, 285, fig. 17:130, 288). Also a cooking pot with a collared rim and bulged-out body has parallels for the 16th century (Ostkamp 2012, 132, cat. 15). A following set of complete or nearly-complete vessels (Figure 48:6-11) deviates from the above definition of a cooking pot, in that they are unglazed, only have one handle and a flat base. However, it was still opted to identify these vessels as cooking pots on the basis of preserved food residues with one of the individuals (see '4.5 Dietary practices'). One of these pots has two sherds attached to its interior, belonging to another vessel that was broken during firing. This does not seem really practical during cooking and washing up. Multiple functions thus remain possible for this type. The vessel with food residues was found in assemblage [03/MIKA/47]. Since the assemblage was situated in the rubble of the upper court's southern tower, following its destruction in the late 16th century, and was covered by earthworks in the beginning of the 17th century, this type should thus be dated between these two events. Moreover, it is remarkable that, besides the one vessel in [03/MIKA/47], all of the other cooking pots ascribed to this type were recovered from [04/MIKA/11]. In the 17th century, most cooking pots retain the basic design, with an outstanding rim and two vertical loop handles (Figure 48:12, Figure 49:1-2). Differences are that the pots now rest on a tripod base, the sides of the body are becoming increasingly straight, and the width grows larger, while the height diminishes. The depicted vessels resemble cooking pots from a cesspit layer in Bruges, dated to the second half of the 17th and first half of the 18th century (Hillewaert and Verhaeghe 1991, 220, fig. 178:4). During that 17th century, a new type appears, with two horizontal loop handles on the transition to the base

(Figure 49:3-4). In some cases (e.g. Figure 49:3), the rim design allows the pot to be hermetically sealed (Clevis and Kottman 1989, 107, cat. 11-79; Groeneweg 1992, 155). The identification of a final group of vessels as cooking pots is uncertain (Figure 49:5-7). Their everted rims and bases on footrings recall the chamber pots discussed above. However, the occurrence of soot traces and the presence of two handles with the vessels depicted on Figure 49:5-6 and the small volume shown by Figure 49:7, justify a determination as cooking pot. For the latter vessel, a function as strawberry jar could possibly be suggested (see the examples in de Graaf and Stam 1987).

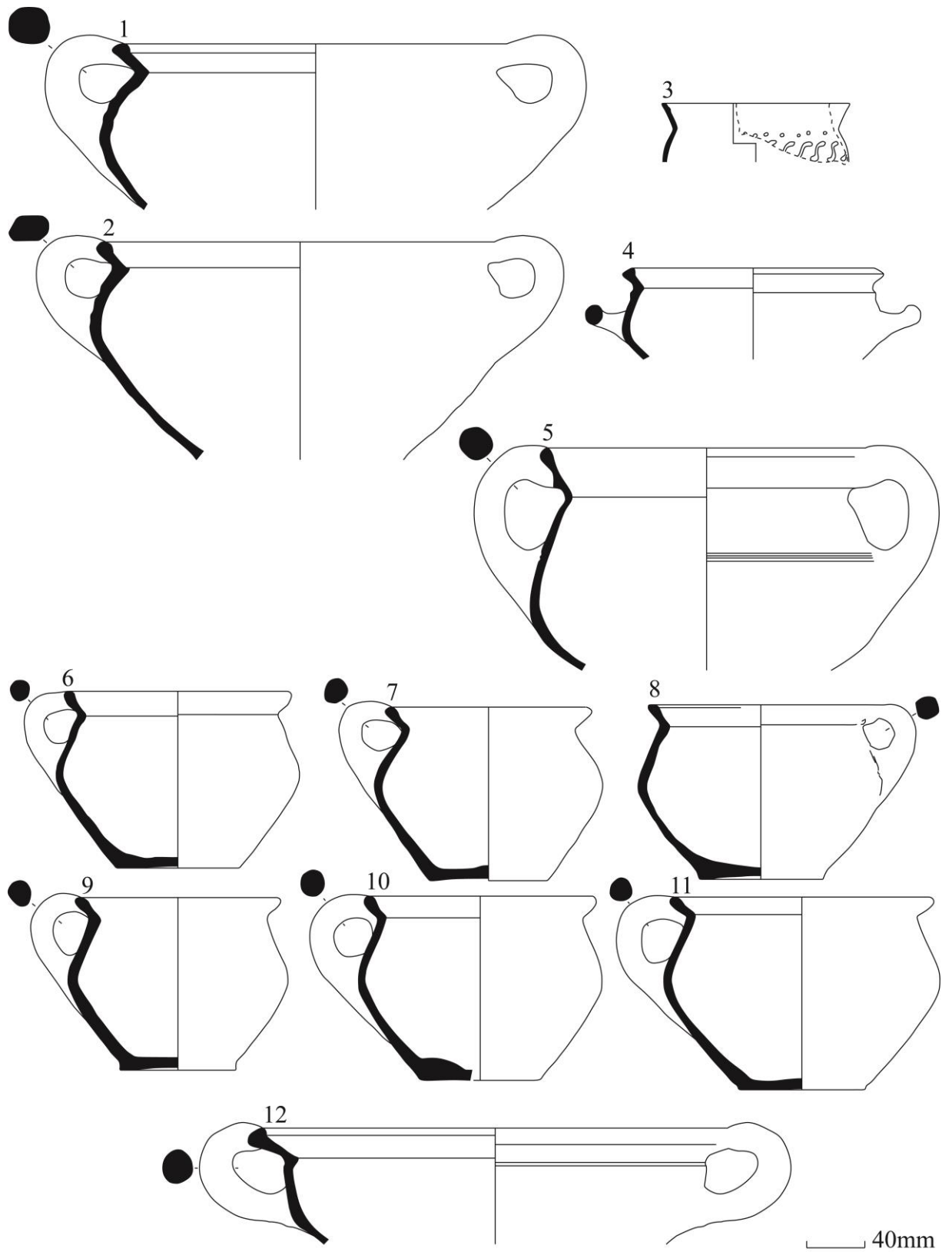


Figure 48 Redware pottery. 1-12: cooking pots.

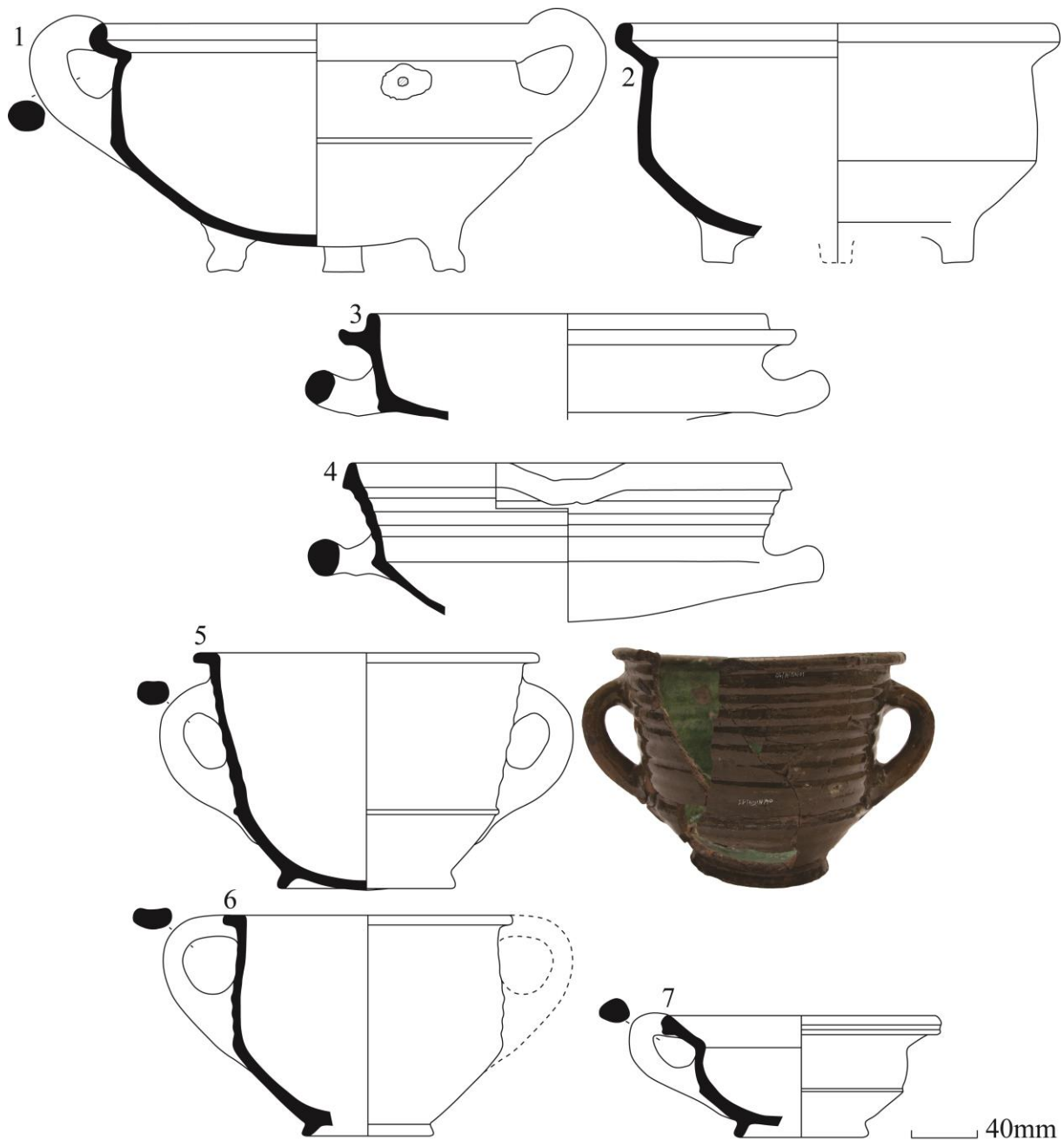


Figure 49 Redware pottery. 1-7: cooking pots.

Another form used for cooking is the skillet (Figure 50:1-10). Contrary to the cooking pots above, tripod bases do occur by the late 16th century, as is evident from the vessels found in the castle's garderobe chutes. This may be an indication of a differentiated use, with cooking pots used above a fire and skillets firmly put into hot embers. Next to tripod bases and bases with thumbed feet, skillets with a flat base (Figure 50:4-5) or base with footring (Figure 50:7) were also recovered from the moat, and may possibly be of a later date. Pinched handles are the general rule with skillets, although in one case a hollow handle was attached (Figure 50:3). These hollow handles belong to a different tradition and may thus possibly indicate that the vessel was imported from outside Middelburg's main pottery supply area. The resemblance to the skillets in the garderobe chutes would

date most vessels to the late 16th and early 17th century. However, several other skillets, distinguished by their triangular rims, are certainly of a 17th-century date (Clevis and Kottman 1989, 109, cat. 11-196; Groeneweg 1992, 82, fig. 45.458).

Frying pans also show a chronological variation. The oldest vessels are characterised by a thickened rim and sharp transition to a convex base (Figure 50:15-16). They have been dated between 1450 and 1550 (Ostkamp 2012, 129, cat. 8). For the late 16th century, several types seem to coexist. Both the type with spur (Figure 50:11-12) and groove (Figure 50:17-18) under the rim have parallels in the lower court garderobe chutes (Poulain, De Grootte and De Clercq 2013, 13, fig. 9:4-7). For frying pans in Bergen op Zoom, an evolution toward increasingly-undercut rims can be observed (Groeneweg 1992, 144, fig. 84). If this is also the case for Middelburg, the vessels depicted in Figure 50:11-12 could be seen as the precursors of those in Figure 50:13-14. Parallels indeed date the two latter frying pans to the 17th century (e.g. Groeneweg 1992, 82, fig. 45.451, 83, 46.474).

A final form related to the processing of hot food is the dripping pan. Different types occur. One vessel has a broad thickened rim and is based on feet (Figure 50:19). Others are rather atypical because of their flat, shallow design. Two similar dripping pans have an upright indented rim to which handles are attached (Figure 50:20-21). Another vessel is decorated by an incision of a straight and curvy line on its sloping rim (Figure 50:22).

Also in close proximity to fire is the fire cover (Figure 50:23). One body fragment is preserved. It is part of a half fire cover, replacing the circular types from the 16th century onward (Hurst, Neal and van Beuningen 1986, 138). Fire covers with a white slip decoration have been produced since the late 16th century, as evidenced by an example dated 1596 (Hurst, Neal and van Beuningen 1986, 155, plate IX). However, as white slip decoration reaches its height in the first half of the 17th century, it seems most likely that the sherd dates to this particular time period.

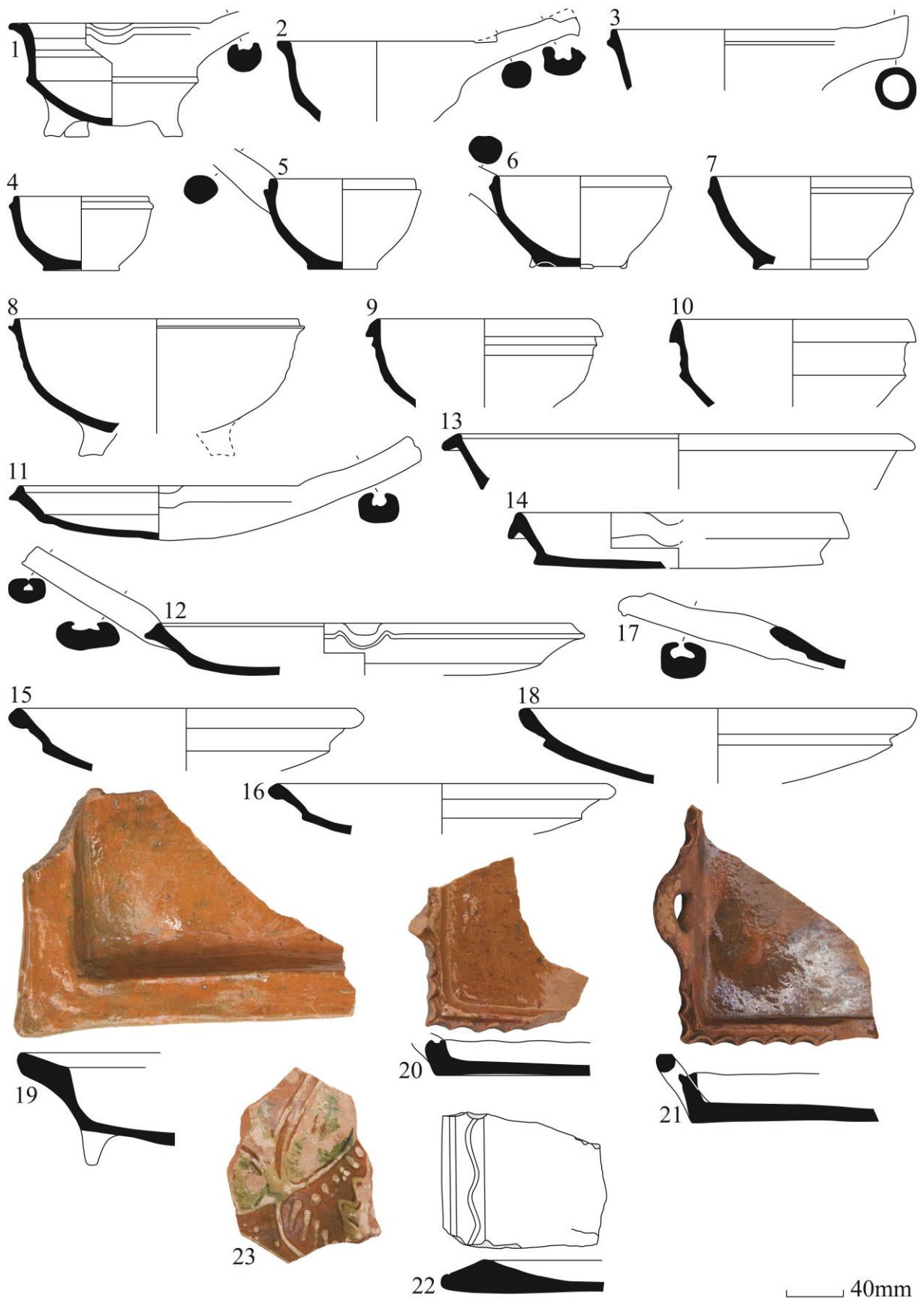


Figure 50 Redware pottery. 1-10: skillets, 11-18: frying pans, 19-22: dripping pans, 23: fire cover.

A series of other forms were equipped to transport heat. A brazier was used to hold coals, which is reflected in the presence of soot traces (Figure 51:1). This unglazed vessel has a square design, with a tripod base and one loop handle. Braziers would appear from the 17th century onward (Bult and Nooijen 1992, 89) and this seems as a reasonable date for this particular vessel. Only one other unglazed vessel was encountered in literature (van den Berg and Vaars 2009, 47, cat. 32). It is indeed dated to the 17th century, but is of a rounded type with straight handle. Braziers that are similar to the Middelburg example are often dated until 1750 (e.g. Jaspers, Eijskoot and Esser 2015, 142, cat. 21). It must, however, be noted that these possibly 18th-century vessels are consistently lead glazed. This might indicate that a 17th-century date can possibly be retained here. The chafing dish was also used to hold coals (Figure 51:2). However, the lack of soot traces could indicate that another fuel was appealed to. On the basis of its design, resembling contemporaneous whiteware chafing dishes (see '4.3.4.3 Whiteware'), the vessel is dated to the 17th century. Sixteenth-century chafing dishes have a more decorative, often crenelated design, see the examples published for the abbey of Beaulieu (De Groote 1992, 355, fig. 24) or Middelburg's Poor Clares convent (see '5.4.3.1 Redware'). Like the forms above, handled jars with inwardly-bent and perforated rims also functioned as heat transporters (Figure 51:3-4). A second type, with a more open design, should probably be seen as a durable shopping cart, allowing to transport other goods besides burning coals (Figure 51:5). Finally, the function of a miniature handled jar is not entirely clear. It possibly concerns a toy (Figure 51:6).

4.3.4.1.4 Toys

Redware toys are certainly present. The lion's share of these toys consists of play disks, made out of reworked tiles (Figure 51:7). One other unglazed vessel is shaped as a miniature olive jar, and is therefore also interpreted as a toy (Figure 51:8). The pale colour of the clay indicates that it does concern an import. As the vessel is completely preserved, it was not possible to investigate the fabric any further. Next to the question of provenance, it remains debatable whether the object was imported as such, or whether the object was made in the Low Countries, with imported clay. That the base does not resemble those of 'real' olive jars might perhaps plead in favour of the latter hypothesis. Another fragment that is noteworthy here, is shaped as a human head (Figure 51:9). To my knowledge, no other parallels are published. The face itself is covered in a manganese brown glaze, while the back is left unglazed and has a rather coarse finishing, with one part that is flattened out. This leads me to suggest that this does not concern a toy, but rather functioned as a building ornament, possibly attached to the roof timbers. An argument in favour of this hypothesis is some small damaging right under the flattened part. Under oblique lighting, an indentation becomes visible, possibly the result of the nail to which the mask was attached.



Figure 51 Redware pottery. 1: brazier, 2: chafing dish, 3-6: handled jars, 7: play disk, 8: miniature olive jar, 9: mask (building ornament), 10-19: plates.

4.3.4.1.5 Eating utensils

With the plate, we return to the ordinary household goods. As a common form, many different types could be distinguished. We will therefore limit ourselves mainly to a discussion of the finishing to determine a date and provenance. A first group of plates is undecorated. They are either covered in a colourless to brown- (Figure 51:10-13) or green-coloured glaze (Figure 51:14-15). Different colours can also be combined, in the form of a brown rim and green well (Figure 51:16-18, Figure 52:1) or by applying a colourless glaze on the rim and a slip-covered well (Figure 51:19). A plate with a similar glazing pattern has been dated between 1575 and 1625 (van Veen 2010, 133, cat. 25). Concerning provenance, Ostkamp (2012, 54) states that plates from Zeeland would have a slightly-paler green than other regions in the Netherlands. I have not ventured to use this rather subjective approach and will therefore refrain from assigning an origin to any of these undecorated plates.

The most common decoration pattern consists of slip stripes on the rim, combined with all of the glazing schemes above (Figure 52:2-10). The application of slip stripes on the rim was certainly in use since the late 16th century, as evidenced by finds in the castle's garderobe chutes (e.g. Poulain, De Groote and De Clercq 2013, 5, fig. 4:4). It could possibly stretch back even further, as similar plates were found in Bruges, in an assemblage dated to the second half of the 16th century (Swimberghe 1985, 186-188). To a lesser degree other decoration patterns occur, either as arches and dots (Figure 52:11), dots (Figure 52:12), a barred S-scroll (Figure 52:13), or a more complex geometric motive (Figure 52:14). For the barred S-scroll pattern, a parallel is present in one of the upper court garderobe chutes (De Clercq *et al.* 2007, 13, fig. 9:46). Before moving on to the more elaborately-decorated pieces, a particular group of plates is mentioned. They do not have a break from rim to well and should thus perhaps be seen as dishes, rather than plates. The well can either be covered in a green-coloured (Figure 53:1, 3) or colourless glaze (Figure 53:2) over a white slip layer.

As mentioned above, several other plates are extensively decorated with white slip and are likely to be dated between 1580-1650 (see '3.9.2.1 Local/regional'). Decorations have been influenced by maiolica and Werra productions, but have been altered to carry symbolic meaning (van Gangelen, Kersloot and Venhuis 1997, 95). These motives can be interpreted in various ways, but always reflect the ruling mentality of civil, Christian-humanistic values, with concepts as piety and combating vice, and the eternal cycle of life (van Gangelen, Kersloot and Venhuis 1997, 96-97, 105; van Gangelen 2000, 154). It is yet uncertain whether these patterns were understood correctly by contemporaries, or whether the plates were just bought for their richly-decorated appearance (van Gangelen 2000, 154). Garthoff-Zwaan and Ruempol (1988) have made a first attempt to interpret these symbols. However, we will adhere to the more recent revisions by van Gangelen, Kersloot and Venhuis (1997) and van Gangelen (2000).

A first base fragment on a footring depicts a heart, pierced by two arrows (Figure 53:5). Dots are furthermore punched in the white slip, following the outline of the heart and forming a cross in the middle of it. The human heart has been romanticised in lyrical love poetry since medieval times and subsequently introduced in the visual arts. It serves as both the symbol of religious and worldly love (van Gangelen, Kersloot and Venhuis 1997, 149). van Gangelen, Kersloot and Venhuis (1997, 101) adds that the heart also refers to the Christian vision on life after death, regeneration, resurrection and doing the right thing. Following Ostkamp (2004), the plate may have been given as a marital present. Floral motives were also applied (Figure 53:6, 7), and would refer to the life cycle, fertility and abundance (van Gangelen, Kersloot and Venhuis 1997, 133). The sun (Figure 53:8), then again, represents the source of life, vitality, fatherly authority, glory, victory, immortality and resurrection (van Gangelen, Kersloot and Venhuis 1997, 148). However, the most recurrent decorative motive is that of a bird, in particular pigeons (Figure 53:4, Figure 54:2-4) or cocks (Figure 54:1). Pigeons are the worldly symbol for love or voluptuousness. In a Christian context, it serves as a reference to the human soul, the Holy Spirit, innocence, humility, modesty, peacefulness, purity, unity, marital love and fidelity (van Gangelen, Kersloot and Venhuis 1997, 124). The plate with a cock is dated 1631. The animal is associated with fighting spirit, dominant watchfulness toward hens and a strong reproductive drive, hence also with fertility, voluptuousness and sexual potency. Militant men were held in high esteem and men were supposed to take up a dominant and protecting role in marriage. Moreover, the cockcrow is also associated with dispelling evil forces and vices (van Gangelen, Kersloot and Venhuis 1997, 125).

Whereas the provenance of the slipware above is unclear, the following plates can be attributed to Oosterhout. Imports from Oosterhout should not come as a surprise, as the town produced for a supra-regional market (Ostkamp 2012, 50). The export of slip-decorated plates from Oosterhout reaches its height between the late 16th and early 17th century. Oosterhout productions can be distinguished from other Dutch plates by the fact that they have a groove separating rim from well, rather than a sharp break. Also decorative motives differ, with longer slip lines that are spaced out more. Finally, the fabric would have a more yellow-orange colour than the average Low Countries redware (Bartels 1999, 113). The plates depicted here (Figure 55:1-7) are thus dated between 1575-1625 and have various parallels in the Netherlands (e.g. van Veen 2010, 133, cat. 26; Ostkamp 2012, 51, fig. 5.15, 52, fig. 5.17). For one of these plates (Figure 55:7), a provenance in Middelburg (the Netherlands) should also be considered (Ostkamp 2012, 52, fig. 5.17).

A final group of plates could not be assigned to a specific production centre. Nevertheless, they were likely imported as they display some rare decorative schemes. One plate (Figure 55:8) has a marbled appearance, an imitation of the pattern so often associated with Pisan productions. Two other plates are marked by a sgraffito decoration, one with sketchy brown lines on a green background (Figure 55:9), the other with a triangular pattern, filled up with series of double arches and three dots (Figure 55:10).

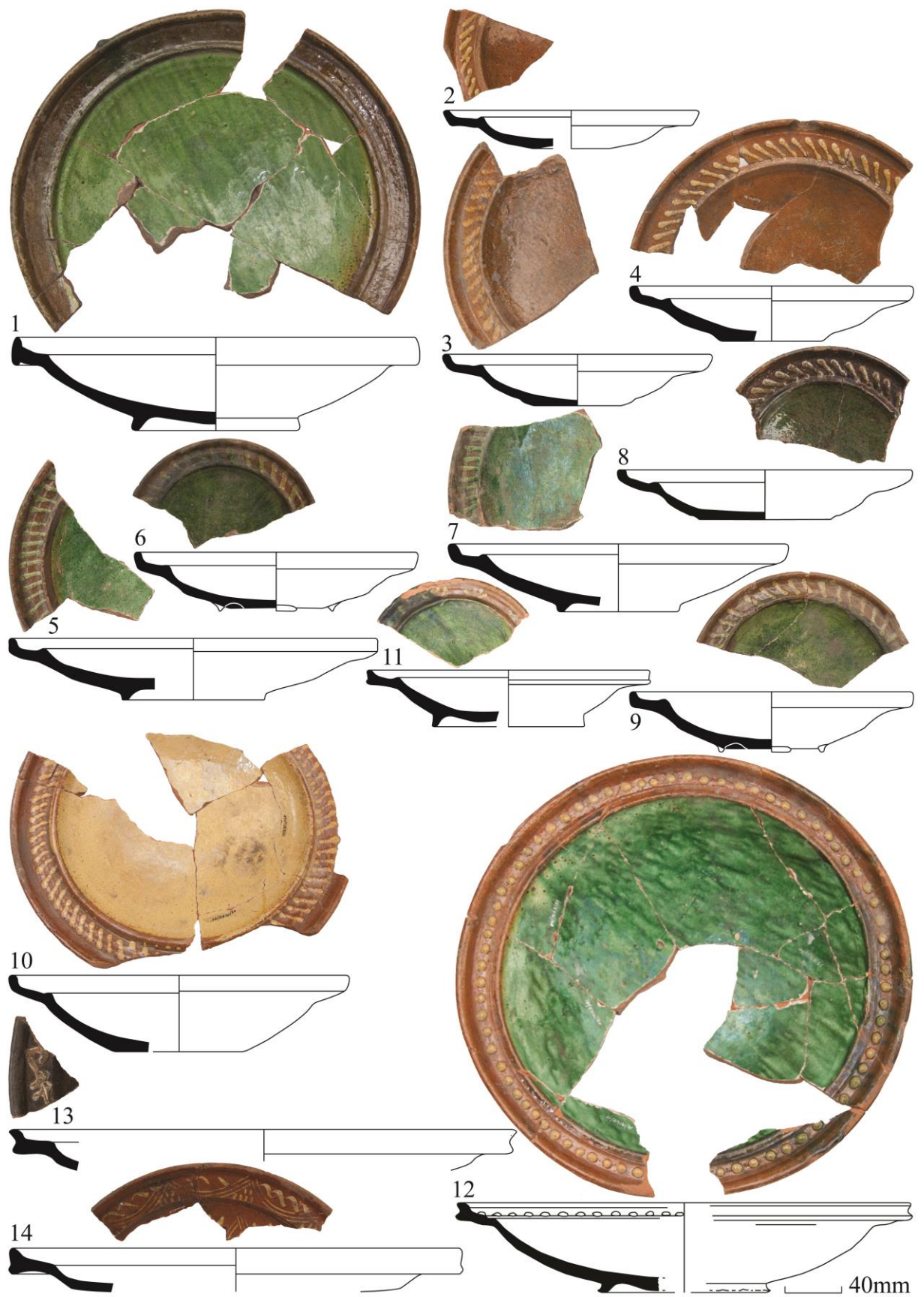


Figure 52 Redware pottery. 1-12: plates.

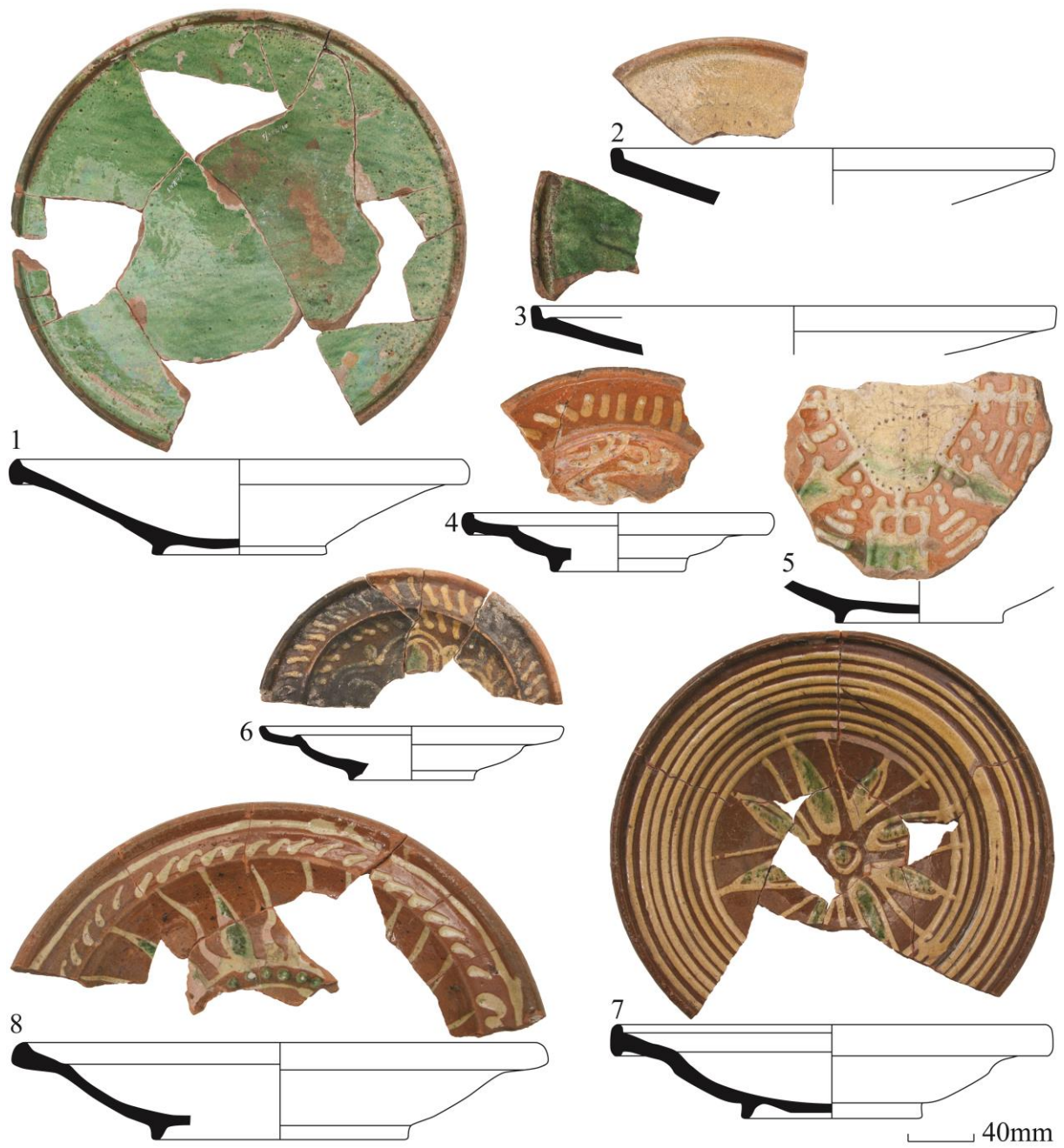


Figure 53 Redware pottery. 1-7: plates.

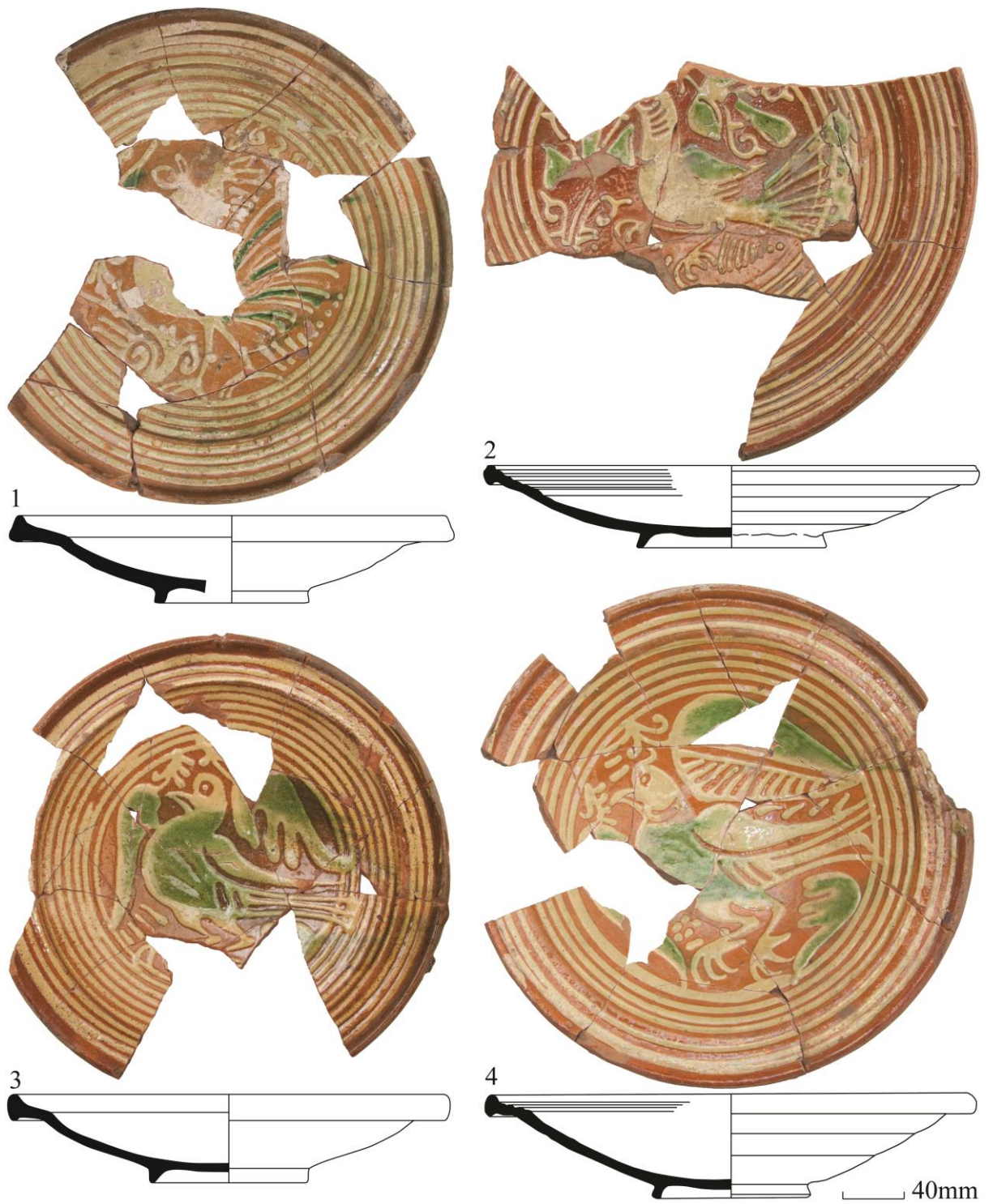


Figure 54 Redware pottery. 1-4: plates.



Figure 55 Redware pottery. 1-10: plates.

The discussion of plates brings us to another tableware form, namely the porringer. Most of the porringers are undecorated, and only covered in a colourless to brown- or green-coloured glaze (Figure 56:1-4). In the *Hof van Hoogstraten*, Brussels, porringers with a green-coloured glaze mainly date to the 16th century (Van Eenhooge 1999, 276). Moreover, profiles for porringers in the *Hof van Hoogstraten* (Van Eenhooge 1999, 275, fig. 9:87-91) closely resemble those in Middelburg, but also those of a certain Dutch provenance (see below). Either most porringers were imported from the present-day Netherlands, or this observation confirms that regional differences faded out during early modern times. A 16th-century date for green-coloured porringers is supported by the find of a vessel with a floral sgraffito decoration (Figure 56:5). An exact parallel was published for Bruges, and dated to the second half of the 16th century (Swimberghe 1985, 185, fig. 7). Comparable motives can also be seen with the wasters excavated in Aalst-Peperstraat (Bracke and Van Hove s.d., 109, fig. 113-114). Other colours than green are possibly introduced only later. A porringer with a yellow-coloured interior (Figure 56:7) has a parallel in an assemblage from The Hague, dated 1600-1650 (van Veen 2012, 390, cat. 50, 391, cat. 52). In a single case, a porringer was covered in a manganese purple, with a wavy slip line on the exterior of the rim (Figure 56:6).

Sgraffito seems to be a recurrent decoration technique in the later 16th century. Two vessels bear an inscription on the outer rim and were both found in assemblage [03/MIKA/45]. On one porringer (Figure 56:8) the text likely reads (O MATER DEI MEMENT)O::MEI. The words written on the other vessel (Figure 56:9) could not be reconstructed, but it might as well concern a similar Marian text. If so, we can add yet another two porringers with Marian texts to the ones already found in one of the upper court garderobe chutes (De Clercq *et al.* 2007, 13, fig. 9:43-44). One other parallel is known from Bruges and dates to the second half of the 16th century (Swimberghe 1985, 185). It shows that these vessels were certainly in use during the late 16th-early 17th century. De Clercq *et al.* (2007, 20) already raised the question whether these vessels were discarded because they were broken or because they communicated Catholic belief, possibly being in possession of the Poor Clares who resided on the castle at various occasions. These finds plead in favour of the latter hypothesis, as it seems unlikely that all four porringers were accidentally broken and discarded at the same time. A similar dating can perhaps also be proposed for two other sgraffito-decorated vessels (Figure 56:10-11). For both porringers, the outer rim is engraved with S-scrolls, while the interior of only one vessel is decorated with geometric and floral motives. Another vessel (Figure 56:12) distinguishes itself by its base with thumbed feet and trefoil handle, possibly inspired by metal forms.

As with the plates above, slipware is also well-represented. The height of its production similarly ranges between 1580 and 1650. A number of these porringers must certainly have been produced in the present-day Netherlands, such as a vessel with the arms of Amsterdam (Figure 56:13). According to van Gangelen, Kersloot and Venhuis (1997, 92),

porringers from South Holland would have no vertical slip stripes on the interior of the rim, whereas this feature would be characteristic of North Holland products. If this is indeed the case, both regions have supplied pottery to Middelburg.

As with the plates, floral motives and birds are the preferred decorative patterns. In most cases, the depicted flowers are likely tulips (e.g. Figure 56:15). As a spring flower, it makes reference to the sense of smell and serves as a love symbol. Moreover, spring is related to marriageable youth and blooming signifies the grace of God, hope and the following phase of bearing fruit. Finally, its sweet scent can be used as an image of voluptuousness (van Gangelen, Kersloot and Venhuis 1997, 136, 140). One porringer depicts flowers in a pot or vase. The same motive can be seen on maiolica plates and probably inspired these redware productions. It signifies the integration of the opposites nature (flowers) and culture (flowerpot), or it can be used as a variant on the representation of the tree of life sprouting from the well (van Gangelen, Kersloot and Venhuis 1997, 136-137). Pomegranates are also depicted (Figure 57:9). As an attribute of Venus, the seeds refer to marital fertility, but also to the unity of many under one authority, either church or state (van Gangelen, Kersloot and Venhuis 1997, 141). Concerning birds, next to doves (e.g. Figure 57:10) or cocks (Figure 57:11), peacocks can also be added to the decorative repertoire (Figure 57:12). A parallel for this porringer was found in a cesspit dated 1625-1650 (Gawronski 2012, 231, cat. 678, 322). As was the case for the other motives, the peacock also has several symbolic meanings. Since it was the attribute of Juno, it symbolises marriage and marital fidelity. Moreover, peacocks could be used to fend off evil and its meat would possess magical properties. Finally, its tail is related to the circle of life and the concept of resurrection (van Gangelen, Kersloot and Venhuis 1997, 125-126).

Other animals that figure on porringers are the stag (Figure 58:1) and fish (Figure 58:2). Stag bowls are generally dated to the first half of the 17th century (Hurst, Neal and van Beuningen 1986, 159, 161, fig. 75; Gawronski 2012, 231, cat. 676, 322). van Gangelen, Kersloot and Venhuis (1997, 132) wrongfully sees the stag as a unicorn. Nevertheless, the associations that both animals evoke remain the same: hard to control, a manly primal force with a sexual charge and with powdered horn as a universal medicine. The fish, then again, can be seen as a fertility symbol, and a phallic symbol in particular (van Gangelen, Kersloot and Venhuis 1997, 127). Two patterns remain unidentified (Figure 58:3-4). For the vessel depicted in Figure 58:3, a parallel was found in Delft (Garthoff-Zwaan and Ruempol 1988, 51, fig. 63).

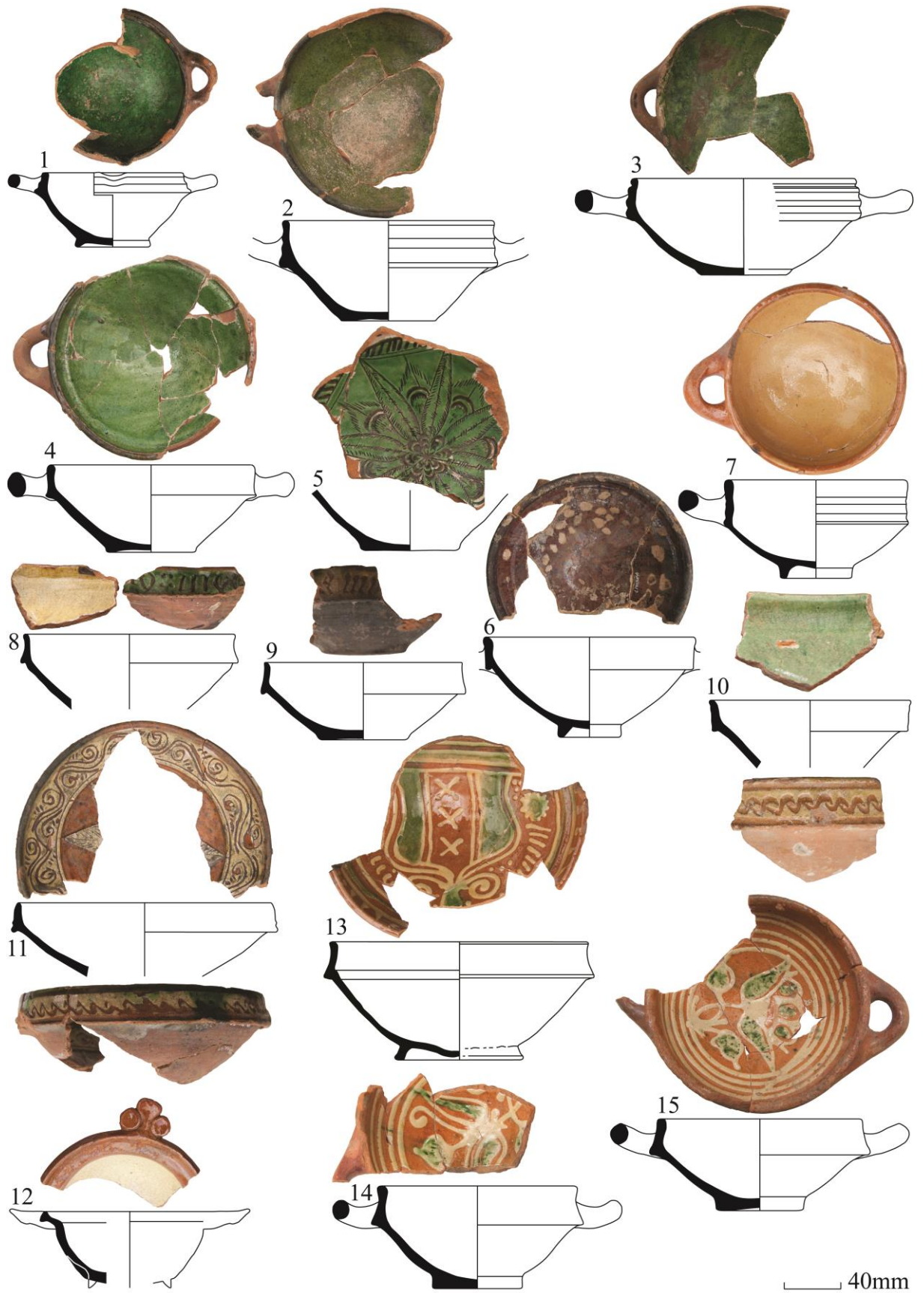


Figure 56 Redware pottery. 1-15: porringers.

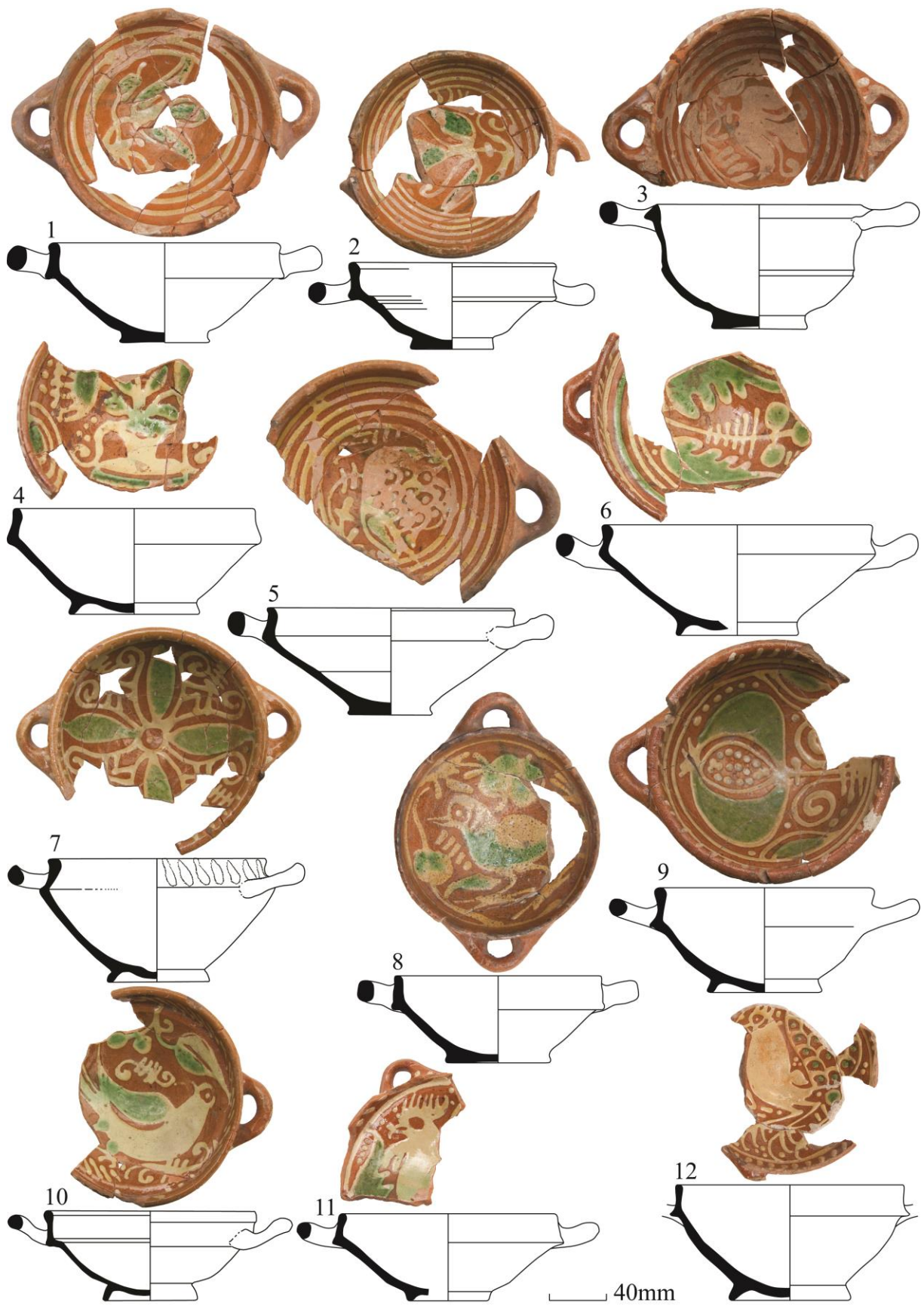


Figure 57 Redware pottery. 1-12: porringers.

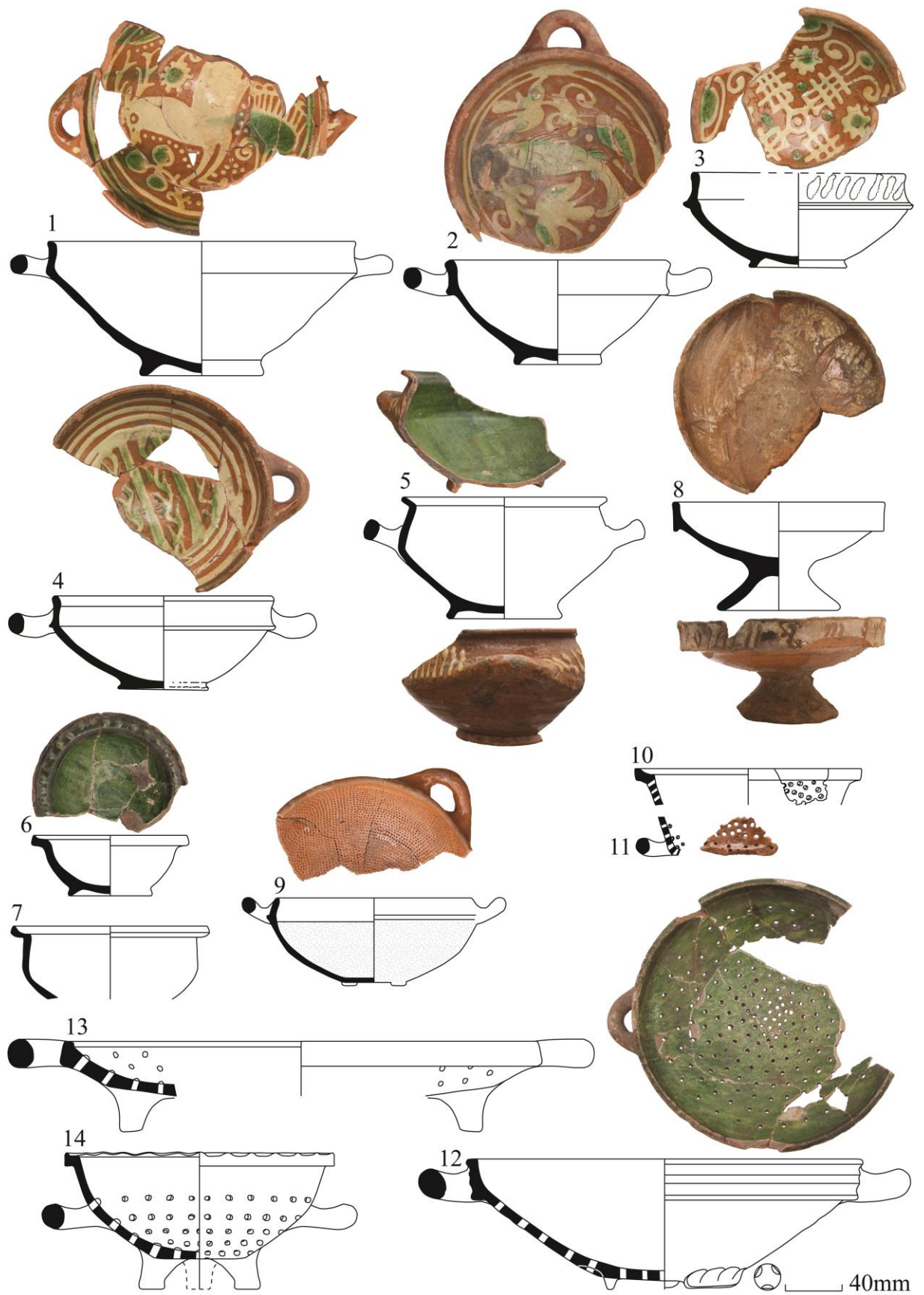


Figure 58 Redware pottery. 1-4: porringers, 5-7: bowls, 8: tazza, 9: sieve, 10-14: colanders.

Porringers are closely related to bowls (Figure 58:5-7). Different types exist. In general, no handles are present, although exceptions do occur. Decorations are possible, using different colours of glaze and by applying slip. A particular vessel is the *tazza* (Figure 58:8). It is decorated with sgraffito on both the inside and the outer rim, which dates it to the later 16th century. On the interior, a soldier is depicted with a feathered hat and halberd, against a background with an acorn and other floral motives. Unfortunately, post-depositional damaging hinders the legibility of the scene. On the outer rim, an inscription is present. After comparison with the published examples from the upper court's garderobe chutes (De Clercq *et al.* 2007, 13, fig. 9:43-44), this inscription does seem to exist out of letters, and not just some insignificant ornaments. However, it possibly does concern another text than the common 'O MATER DEI: MEMENTO MEI'. Unfortunately, the state of preservation makes it impossible to determine what was actually written. Groeneweg (1992, 223) notes that the variant 'O MARIA: MATER DEI' is commonly found with this form type.

4.3.4.1.6 Kitchen and stock

The remaining forms have their place in the kitchen. Two sieves were identified, belonging to one basic type (Figure 58:9). They are characterised by their porringer-like shape with myriad small perforations. Another vessel resembles these sieves in its small dimensions, but has larger perforations, with an everted rim and horizontal loop handles on the transition from body to base (Figure 58:10-11). A similar rim profile is found in one of the upper court garderobe chutes, which dates this type to the late 16th-early 17th century (De Clercq *et al.* 2007, 16, fig. 11:90). However, a parallel at the Poor Clares convent shows that the type was already in use during the first half of the 16th century (see '5.4.3.1 Redware'). The distribution of the sieve and these small colanders is restricted to the castle's upper court. A possible link to the consumption of fruit or wine could be suggested. Another parallel for the small colander in a rather wealthy, possibly religious assemblage in Bruges (Hillewaert and Verhaeghe 1991, 212, fig. 173:8) could confirm the association of this type to high-status practices. Other colanders come in the shape of large carinated bowls (Figure 58:12), shallow dishes (Figure 58:13) or bowls with indented rim (Figure 58:14). The colander shaped as a large carinated bowl is by far the most common type. One archaeologically-complete vessel is based on thumbed feet.

The discussion of large carinated bowls is limited here. Beside myriad variations on the rim type, all vessels respond to the same basic shape. One large carinated bowl is archaeologically complete and based on thumbed feet (Figure 59:1). As with most of the vessels, no handles are present. It are only but a few individuals that have handles attached to the rim (Figure 59:2). Whereas large carinated bowls were generally used to skim the cream of milk, storage jars could be used to hold all sorts of goods. They either have an upright rim on a closed, globular body (Figure 59:3-4), or a thickened and

undercut (Figure 59:5-7) or collared rim (Figure 59:8-9), all of which allow to securely close off the jars.

No jugs on thumbled feet were preserved, contrary to the 1519-1550 assemblage of the Poor Clares convent (see '5.4.3.1 Redware'). It might indicate that these vessels are of a later 16th- or 17th-century date. The hypothesis could be confirmed by a parallel for the vessel depicted on Figure 59:10 in one of the upper court garderobe chutes (De Clercq *et al.* 2007, 13, fig. 9:48), which dates it to the late 16th-early 17th century. Most jugs are undecorated, and are solely covered in a colourless to brown lead glaze. One vessel stands out by its external purple- and internal yellow-coloured glaze (Figure 59:15). As suspected, EDS (Energy-Dispersive X-ray Spectroscopy) showed that the purple glaze indeed had high manganese concentrations (probably in an Mn³⁺ oxidation state), but was low in iron. The yellow glaze showed the inverse pattern (pers. comm. Royal Belgian Institute of Natural Sciences). Another jug was decorated with slip lines on the exterior (Figure 60:1). As with several other vessels (e.g. Figure 60:2, 3), its large volume indicates that the jug probably functioned for storage, rather than serving at the table.

For a final group of vessels, the function is not entirely clear. A jar with undulating body, two vertical loop handles and base on a footring is covered in white slip and subsequently finished with an external colourless and internal copper-green glaze, hence imitating whiteware productions (Figure 60:4). A wavy design can also be seen with two other vessels (Figure 60:6-7). Figure 60:6 was found in assemblage [03/MIKA/47], which places this form in the late 16th-early 17th century. A following vessel (Figure 60:5) has a cylindrical body on a foot with a thickened rim and at least one handle attached to it. As with the small handled jar discussed above, it might also concern a toy. Two final bowls have a simple rim design and are internally glazed, colourless (Figure 60:8) or copper green (Figure 60:9) on a white slip layer. The vessel depicted on Figure 60:9 had some surface residues preserved, unfortunately analysis brought no further clarity concerning its function (see '4.5 Dietary practices'). As seen above, these latter two bowls could also be considered as whiteware imitations (compare to the vessel depicted in Figure 64:17).

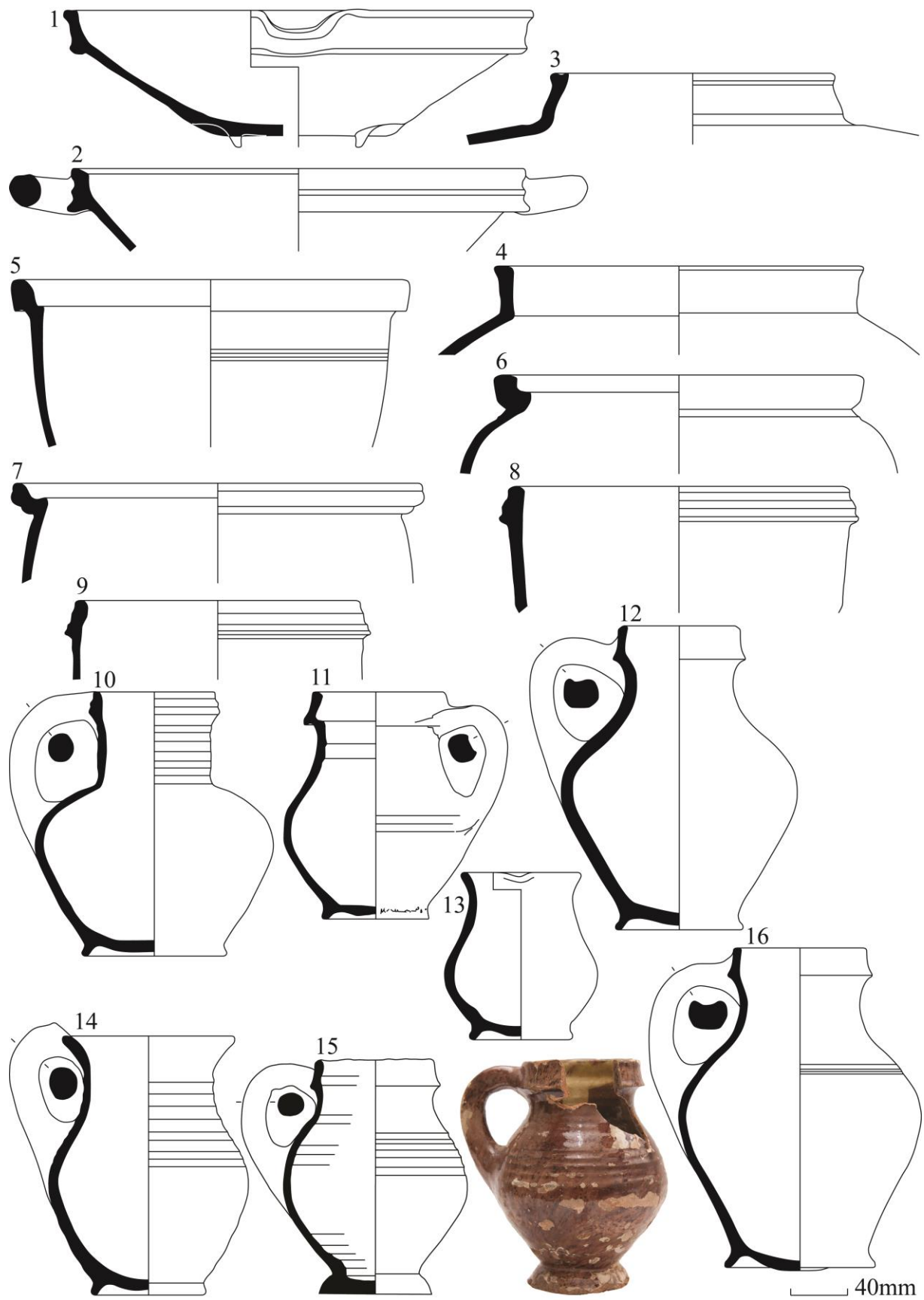


Figure 59 Redware pottery. 1-2: large carinated bowls, 3-9: storage jars, 10-16: jugs.



Figure 60 Redware pottery. 1-3: jugs, 4: jar, 5-9: unknown.

4.3.4.2 Greyware

The greyware in the Middelburg assemblage consists of 53 sherds and 18 individuals (4 cooking pots, 5 large carinated bowls, 1 jug, 1 porringer, 1 oil lamp, and 6 vessels that could not be identified because of their fragmentary state). The presence of the oil lamp (Figure 61) is noteworthy, as Hurst, Neal and van Beuningen (1986, 139) stated that they were never made in greyware. This claim was already debunked earlier, for example by the find of a greyware oil lamp at the Wealthy Clares abbey in Petegem (De Grootte 1992, 345, fig. 15:12).

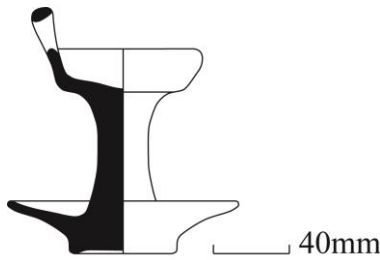


Figure 61 Greyware pottery: oil lamp.

The spatial distribution of this greyware (Figure 62) shows that 23 of these sherds, representing 8 individuals, were found on the upper court. Most greyware at the upper court was found in small assemblages spread across the building itself. In the moat, only the units near the northern tower [04/MIKA/12] and to the west of the southern tower [03/MIKA/45] contain some greyware sherds. The other units are devoid of any reduced material.

The lower court shows a different pattern, with greyware present both in the moat and on the adjacent structure. A particular cluster can be noticed in the northeastern garderobe chute and its outflow into the moat. A total of 86 sherds makes up more than half of the greyware material at Middelburg and shows that this ware type still lingered around the castle in the late 16th century.

The discrepancy in numbers between the upper and lower court might reflect their difference in function. Although some high-status rooms were certainly present at the lower court (see '4.3.4.6.2 Italian pottery'), ordinary household activities, as evidenced by the greyware associated with them, must also have been performed there.



Figure 62 Distribution of greyware sherds.

4.3.4.3 Whiteware

Spread across both upper- and lower court, 1066 sherds or 140 individuals (32 cooking pots, 29 jugs, 3 skillets, 20 porringers, 3 chafing dishes, 7 chamber pots, 11 pie dishes, 3 toys –1 fire cover and 2 jugs–, 3 bowls, 2 oil lamp, 1 large carinated bowl, 1 storage jar, 1 jar, 1 cup, and 23 unidentified vessels) of white-firing pottery were found. These are probably all made in the Netherlands, and Gouda in particular, because of the resemblance to Dutch redware productions.

Whiteware pottery was certainly in use since the late 16th century, as is evidenced by its presence in the lower court garderobe chutes, and may thus compose of East Frisian clays (see '3.9.3 Whiteware'). Most of the whitewares in the moat, however, point to a date in the 17th century. A selection of these finds is discussed here (Figure 63 and Figure 64). The cooking pots are one of the form categories typical of that 17th century. The biconical shapes with collared rim (Figure 63:1, 4) are generally dated 1600-1650 (Claeys, Jaspers and Ostkamp 2010, 560, cat. 124-126; Ostkamp 2015, 135, cat. 15). On the other hand, those cooking pots with straight sides (Figure 63:2-3) likely date somewhat later in that century. A double-handled cup (Figure 63:5) has a parallel in the first half of the 17th century (van Veen 2012, 404, cat. 89), and so does a chafing dish (Figure 63:6) with two loop handles and convex base on a footring (Hos 2009, 135, cat. 21). A vessel with an outstanding rim, rounded body and convex base (Figure 63:7) was identified as a bowl, although a cup or porringer are likely form types as well. Similar pots are dated 1550-1600 (Claeys, Jaspers and Ostkamp 2010, 515, cat. 6) or 1625-1675 (Claeys, Jaspers and Ostkamp 2010, 563, cat. 133). The identification of oil lamps (Figure 63:8) poses less problems. Parallels for the depicted vessels are dated to the 17th century (Claeys, Jaspers and Ostkamp 2010, 565, cat. 139), possibly stretching to the early 18th century (Jaspers, Eijskoot and Esser 2015, 144, cat. 27, 145, cat. 29). The rims of jugs can either be plain (Figure 63:9, 11) or profiled (Figure 63:10). Only one fragment (Figure 63:12) informs us on the design of the base, which in case is a profiled footring. Chamber pots were identified by their rim on an outstanding collar (Figure 63:13-14). The same rim design of the vessel depicted in Figure 64:18 did, however, not lead to an identification as chamber pot. Its straight sides rather point to a function as storage jar. An exact determination therefore remained unspecified. Only one large carinated bowl was identified (Figure 64:1), and also the skillet does not prove to be a very common form (Figure 64:2-3). A next series of vessels were used for shaping pies. They either have an upright rim, which can be incised, on an outstanding collar (Figure 64:4-5) or a plain upright, but indented rim (Figure 64:6). Parallels for the latter design are dated between 1625 and 1675 (Claeys, Jaspers and Ostkamp 2010, 543, cat.86-87; Dijkstra, Houkes and Ostkamp 2010, 2010, 138, fig. 4.66; van Veen 2012, 406, cat. 96). Whiteware double-handled bowls are often described as cups, following the Deventer system. However, I have opted to use the term porringer, because of the formal resemblance to redware porringers. As the pie dish described above, several

of the porringers (Figure 64:7-10) have parallels dated between the second and third quarter of the 17th century (de Jong-Lambregts 2004, 46, fig. 64; Claeys, Jaspers and Ostkamp 2010, 562, cat. 131-132; Gawronski 2012, 237, cat. 718-722, 323). The same date range could also be proposed for a vessel with pinched handle (Figure 64:12) (Jacobs and van Veen 1996, 81, fig. 79; Claeys, Jaspers and Ostkamp 2010, 563, cat. 135; Dijkstra, Houkes and Ostkamp 2010, 146, fig. 4.91), although its presence in an Amsterdam assemblage of the last quarter of the 17th century (Gawronski 2012, 236, cat. 717, 323), could indicate that it possibly had a longer use-life. For a porringer with trefoil handle (Figure 64:11), no comparison was found. Its form was most likely derived from metal examples. Two final form types that were identified are a jar with curvaceous body, two handles and convex base on a footring (Figure 64:13), and a set of toys: two jugs (Figure 64:14-15) and a fire cover (Figure 64:16). A rest group of 22 individuals remained undetermined, mainly because of their fragmentary state. Some of the more well-preserved vessels are a green-glazed bowl on a flat base (Figure 64:17) and a square-shaped jar on a footring with handle (Figure 64:19). Although the basic design reminds us of a *test* (a coal holder/brazier), the handle does not rhyme with this function.



Figure 63 Whiteware pottery. 1-4: cooking pots, 5: cup, 6: chafing dish, 7: bowl, 8: oil lamp, 9-12: jugs, 13-14: chamber pots.



Figure 64 Whiteware pottery. 1: large carinated bowl, 2-3: skillets, 4-6: pie dishes, 7-12: porringers, 13: jar, 14-16: toys (14-15: jugs, 16: fire cover), 17-19: unknown.

4.3.4.4 Hafner

In the Middelburg assemblage, 20 sherds or 3 individuals of Hafnerware were counted, all found on the upper court. The 3 individuals are all plates (Figure 65). Their coarse fabric places a possible provenance in Cologne (see '3.9.4 Hafner'). The plates are characterised by an upright lip, with an accentuated transition from rim to well. One vessel has a perforation in the rim (Figure 65:1). However, it is yet unclear whether this perforation was intended for hanging or merely part of the production process. The rim is always decorated, either with linked-up hemispherical (Figure 65:1) or wavy bands (Figure 65:2). A parallel for the latter has been found in Deventer, and has indeed been attributed to Cologne (Clevis and Kottman 1989, 129, cat. 11-71). Both decorations patterns are attested from the early 16th century onward (Gaimster 2006, 79). Given that these vessels indeed originate from Cologne, we can propose a date between 1500/1525 and 1550/1570. To our knowledge, Veeckman *et al.* (1992, 39, fig. 9) and De Poorter (1995, 159-160) are the only ones mentioning Hafnerware, respectively in Antwerp, dated 1575-1625, and in an assemblage found in Brussels, dated to the first half of the 17th century. The proposed dating should thus perhaps be adjusted in the future, when more evidence surfaces.

Although all 3 individuals are plates, there certainly must have been other Hafnerware forms at Middelburg's castle (e.g. frying pans or cooking pots), as is evident from the presence of flat tripod bases. The presence of these fragments, solely at the upper court, could indicate that these utilitarian coarsewares were not so common after all for early modern Flanders, but had a specific meaning in the first decades of the 16th century.



Figure 65 Hafnerware pottery. 1-2: plates.

4.3.4.5 Low Countries tin-glazed ware

A total of 1499 sherds, representing 352 individuals of tin-glazed ware were provenanced in the Low Countries. As such, these vessels make up respectively 4.14% and 5.72% of the moat's ceramic assemblage. Their distribution follows the overall spread of pottery on Middelburg's castle (Figure 66). 302 plates, 5 bowls, 17 porringers, 1 cup, 1 mug, 3 jugs and 11 ointment jars were identified. The form of another 12 vessels remained undetermined.

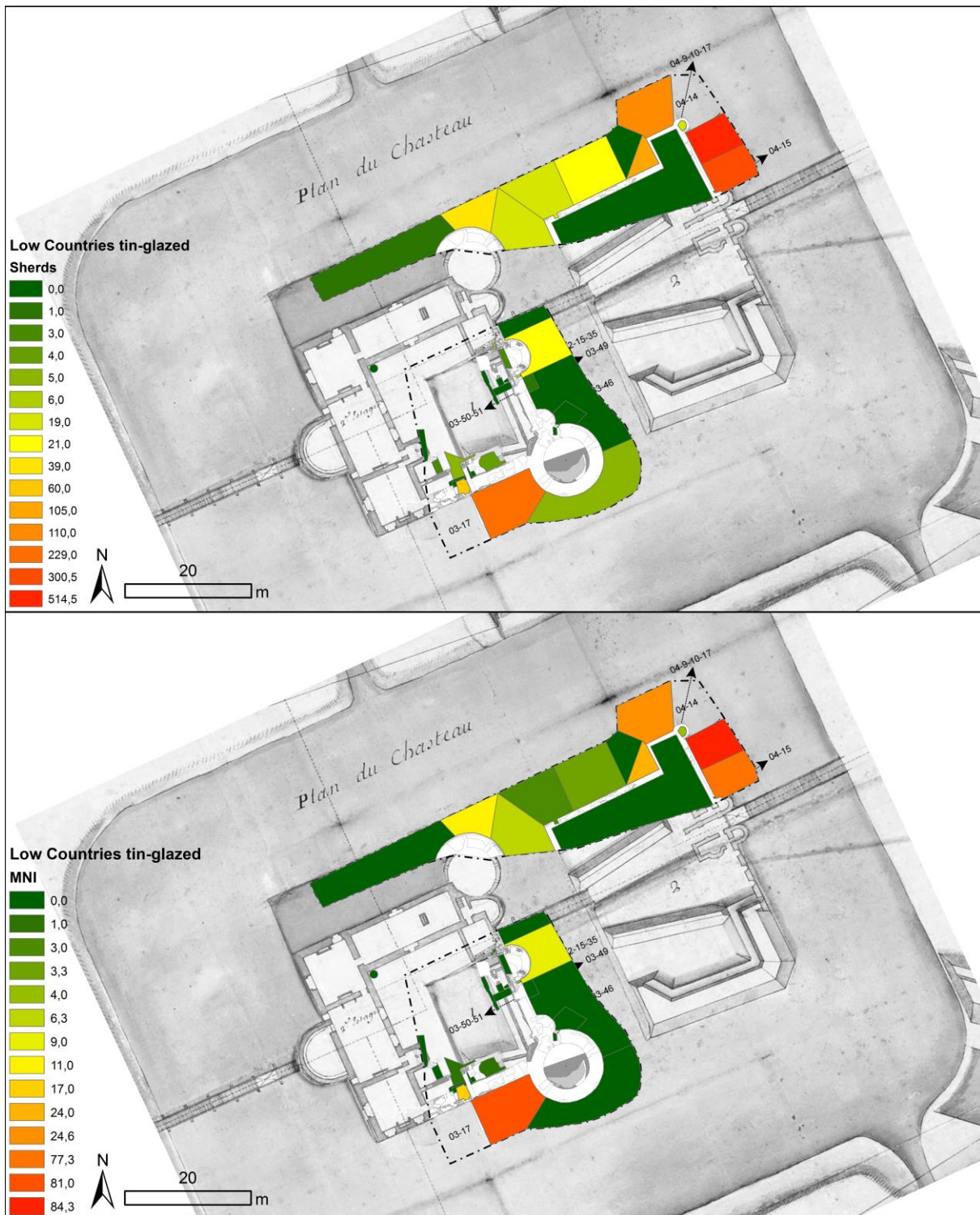


Figure 66 Distribution of Low Countries tin-glazed wares at Middelburg's castle. Crossfits explain the decimal places in the legend.

The oldest finds are part of maiolica plates. They are characterised by a geometric? or central rosette motive with stylised floral frieze and a rim decoration of concentric blue bands or a zigzag pattern in orange and blue (Figure 67:1-3). This blue and orange combination was already applied in Antwerp in the second half of the 16th century (Veeckman and Dumortier 1999, 145; 146, fig. 10; 165, cat. 8; 191, cat. 50). Parallels refine

this dating to the last quarter of that century (Korf 1981, fig. 203, 112, fig. 233). For the plates with the zigzag pattern, the dating should perhaps be stretched to the early 17th century (e.g. Dumortier 2002a, 41, fig. 19; De Clercq *et al.* 2007, 14, fig. 10:71; Poulain, De Groot and De Clercq 2013, 15, fig. 11:10). These late 16th-century finds cluster in and to the west of the upper court's southern tower (assemblages [03/MIKA/45] and [03/MIKA/47]). That no older finds were recovered is remarkable, as Low Countries maiolica was certainly present in Middelburg since the first half of the 16th century (at the Poor Clares convent, see '5.4.3.4 Tin-glazed ware'). Apparently, in that time period, the castle's occupants were more drawn toward tin-glazed wares of an Italian origin (see '4.3.4.6.2 Italian pottery').

A following series of plates can be dated to the turn of the 16th and 17th century. One vessel is characterised by a triangular patterning on the rim and floral motive in the centre (Figure 67:4). Although the triangular patterning has been found on early 17th-century wasters in Harlingen (Jaspers 2013, 28, fig. 48), older parallels are known, dated to the third quarter and second half of the 16th century (Falk and Gaimster 2002, 376, fig. 9; Jacobs and Vandeveld 2012, 142, cat. 44). A variation on this theme of triangular patterning can be seen with a following plate (Figure 67:5). It too is dated to the late 16th-early 17th century (Tietzel 1980, 118, cat. 11; Korf 1981, 107, fig. 207).

Another group of plates (Figure 67:6-7) is decorated with a chequerboard pattern, either polychrome (Italian influence) or monochrome blue (possibly a Dutch invention)(Jaspers 2013, 34). This pattern is often dated to the first quarter of the 17th century (e.g. Gawronski 2012, 203, cat. 503, 320; Oosterbaan and Griffioen 2016, 497, cat. 44). In Antwerp, production of vessels with chequerboard decoration started before 1615, as evidenced by the finds at the Augustian friary (Veeckman 2010). The rim of these vessels is consequently decorated with a cable pattern, which is generally dated only after 1600 (Korf 1981, 33; Jaspers 2013, 28). However, a porringer decorated with both a chequerboard and cable pattern, found in an Amsterdam assemblage dated 1595-1597 (Gawronski, Jayasena and IJzerman 2016, 43, fig. 12), shows that both decoration schemes already had their origins in the late 16th century.

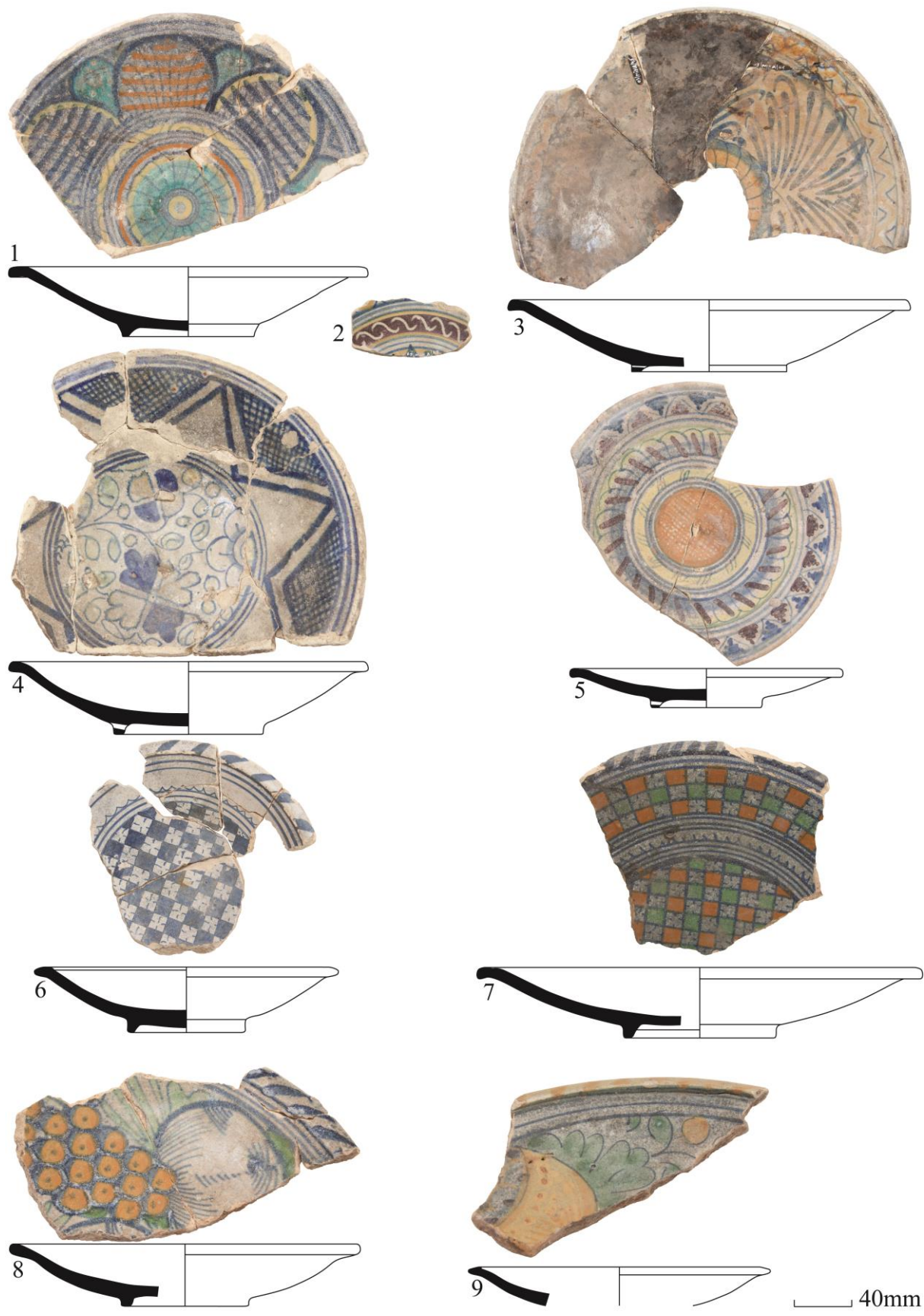


Figure 67 Low Countries tin-glazed ware. 1-9: plates.

That same cable pattern on the rim can also be seen with several other plates. The combination with pomegranates and grapes has been attested in early 17th-century wasters (Jaspers 2013, 38). Both the cable pattern and fruit decoration occur in mono- or polychrome variations (Figure 67:8-9, Figure 68:1-2). A monochrome piece is the only tin-glazed vessel with a, yet to be identified, potter's mark, reading IC or IG (Figure 68:2). Polychrome floral motives live on during the first half of the 17th century. One plate depicts a flower on a patch of ground (Figure 68:3). While parallels for the rim decoration with cable pattern, interlacing bands and serrated circle surrounding the central motive are dated to the late 16th and early 17th century (Tietzel 1980, 118, cat. 12; Jaspers 2013, 37; Gawronski, Jayasena and IJzerman 2016, 43, fig. 12), the central motive itself certainly lives on until the 1650s (Korf 1981, 39, fig. 89). Another vessel is decorated with oranges and grapes in a fruit bowl (Figure 68:4). Comparable plates are dated between 1620-1640 (Gawronski 2012, 243, cat. 765, 323). Polychrome faunal motives are more rare. When they do occur, a bear is depicted (Figure 68:5). A similar specimen was dated to the first half of the 17th century (Korf 1981, 246, fig. 739). The same orange colour used in painting the bear can be attested with some fragments depicting stylised flowers (Figure 68:6). A parallel with a 1639 date situates this pattern somewhere in the second quarter of the 17th century (Korf 1981, 36, fig. 78).

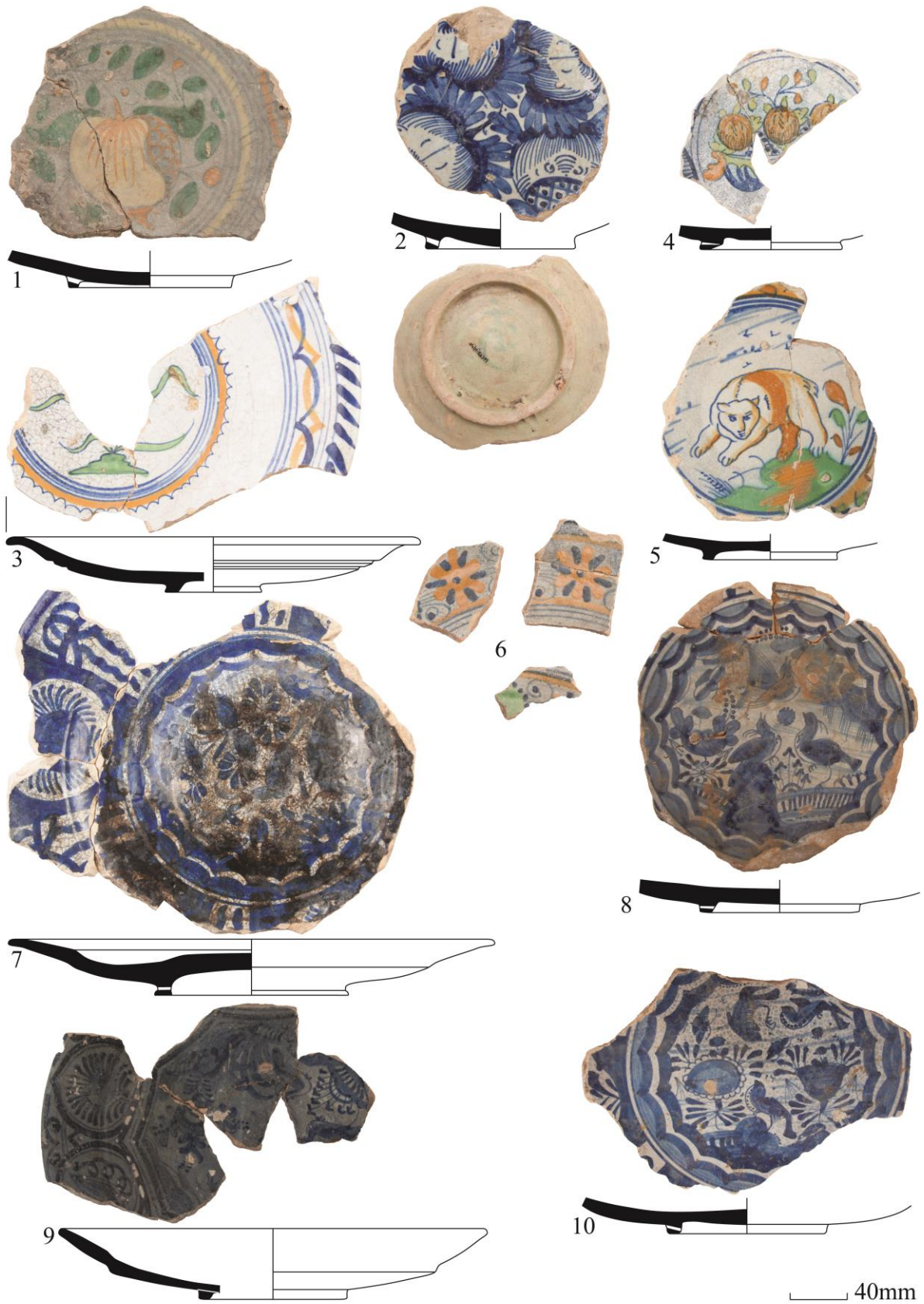


Figure 68 Low Countries tin-glazed ware. 1-10: plates (6 not to scale).

Under the influence of Chinese porcelain, maiolica plates were increasingly painted in a monochrome blue, with characteristic Wanli decorations on the rim. They are generally dated to the first half of the 17th century. For the greater part, these goods must have been produced in the Northern Netherlands. However, during the first half of the 17th century, tin-glazed production continued in Antwerp (Oost and Veeckman 2002, 60) and Ghent (Laleman *et al.* 1996). Although these recent productions are ill-known, a provenance in the Southern Netherlands should therefore remain considered.

Some of the plates stick close to their Chinese porcelain counterparts in terms of decoration. Of those vessels, the motive of a bird in a water garden is by far the most popular one (Figure 68:7-10, Figure 69:1-7, Figure 70:1). One to three birds in a pond with various plants are enclosed by a frieze which, in turn, separates the central motive from different styles of Wanli decorations on the rim. Another much-occurring oriental decoration scheme is that of one or multiple leaves, combined with scrolls. Monochromatic painting is dominant with this pattern (Figure 70:2-5). Only one polychrome plate was identified (Figure 70:6). One vessel displays a central motive consisting of a scroll and floral decorations (Figure 70:7). It distinguishes itself from the plates discussed above in its higher-quality painting and fabric, and fully-covering tin glaze. Given its dating in the first half of the 17th century, it probably concerns the oldest Dutch faience vessel in the Middelburg assemblage.

A following set of plates gives an interesting glance into the social world of the potter/painter, as it shows a personal impression of what a Chinaman would look like. One vessel depicts two seated individuals, possibly involved in a tea ceremony (Figure 71:1). Two similar vessels show a person with an alien-like head and Mohican haircut (Figure 71:2-3). They are possibly inspired by the so-called *zotjes*, Chinese child figurines on porcelain. On the better preserved plate, such a *zotje* is playing a board game. During the first half of the 17th century maiolica potters break free from these oriental themes. Wanli rim decorations are now combined with Dutch landscapes (Figure 71:4-5), a crucified Jesus (Figure 71:6), or fruit bowl (Figure 71:7).

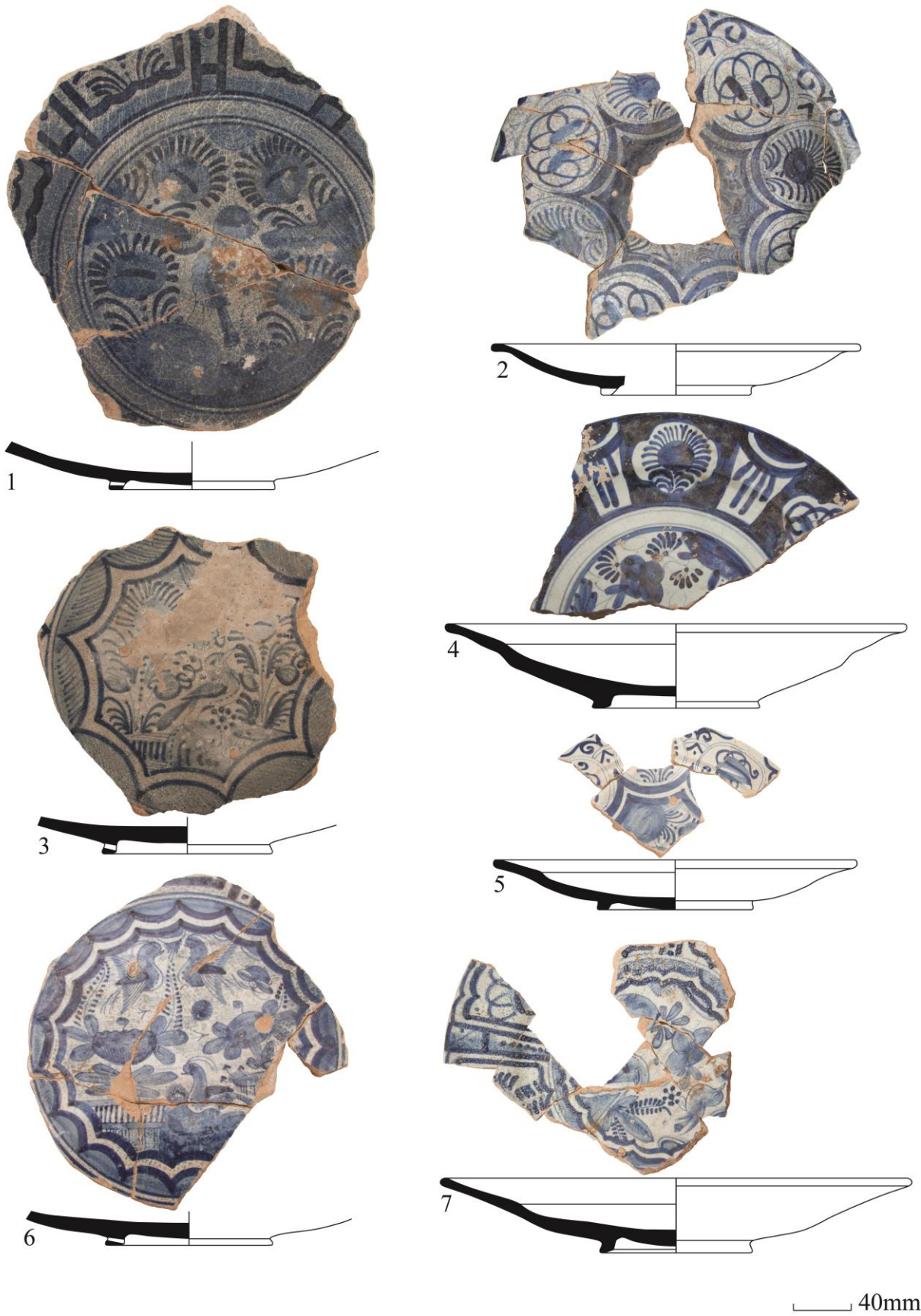


Figure 69 Low Countries tin-glazed ware. 1-7: plates.

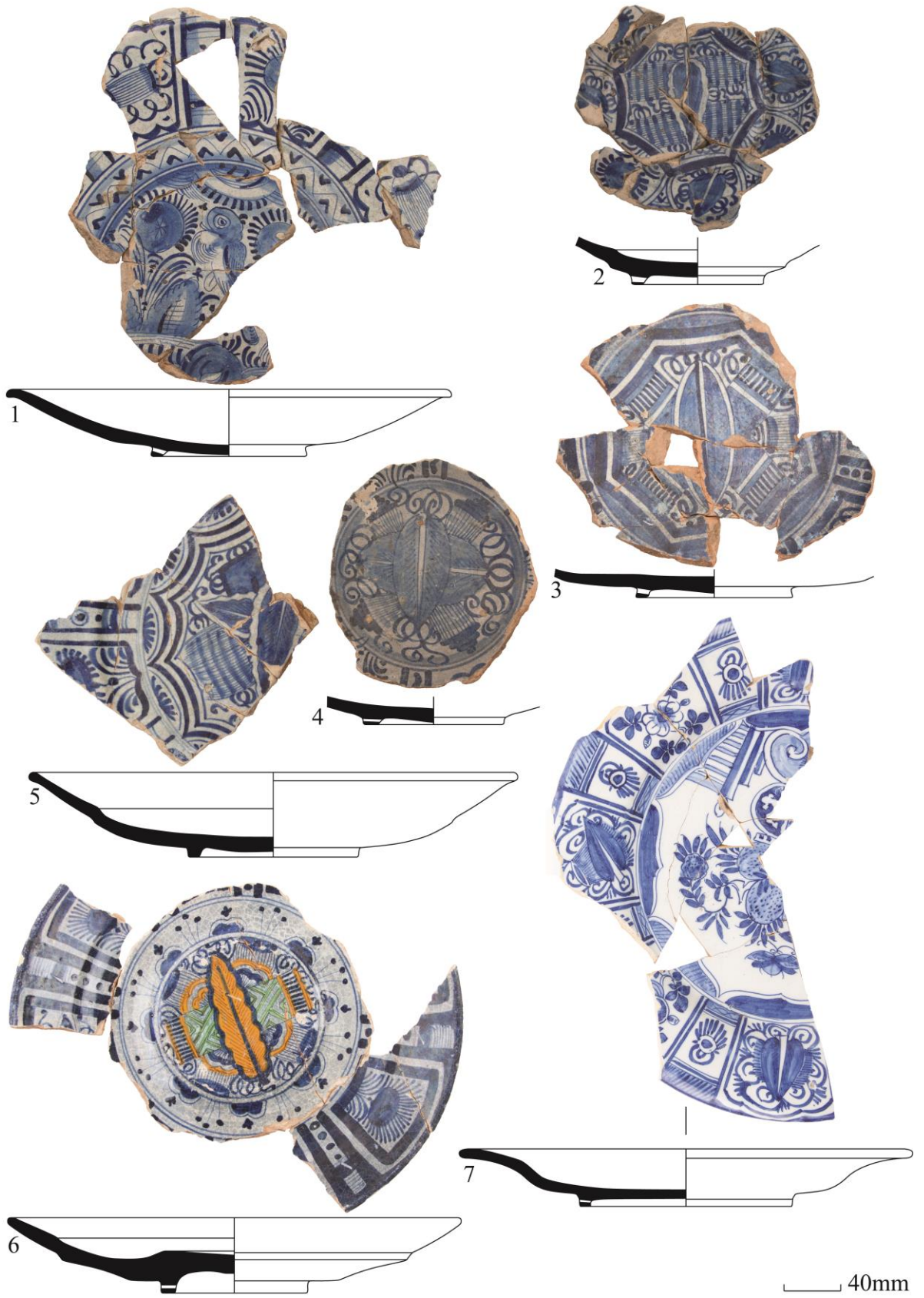


Figure 70 Low Countries tin-glazed ware. 1-7: plates.



Figure 71 Low Countries tin-glazed ware. 1-7: plates.

Oriental patterns continue to influence tin-glazed productions into the first decades of the second half of the 17th century, either as Wanli decorations on the rim and a flowerpot on the well (Figure 72:1) or as alternating landscapes and Chinese individuals

(Figure 72:2-3). Scholten interprets the latter decorative scheme as a response to the import of Japanese porcelain in a schematic style, an adulteration of the Chinese transitional style, and dates it between 1660-1680 (1993, 13, 126, 127, fig. 109). Other authors date the plates somewhat earlier, c. 1640-1660 (e.g. Gawronski 2012, 254, cat. 830, 324). One vessel (Figure 72:3) is marked with the number '26'. Their thin-walled design with a fine footring or flat base is a far cry from earlier maiolica plates. References to the East are increasingly lost, making way for influences closer to home. For example, Roman paintings in the *Domus Aurea* are reflected on a plate with a grotesque decoration of stylised angels, connected by tendrils (Figure 72:4). A landscape figures on the centre of the well. Such a *raffaellesche* decorations with coarsely-painted tendrils would be characteristic of the period around 1660 (Baart 2008, 130), possibly stretching from 1640 to 1675 (Faÿ-Hallé and Lahaussais 2003, 112, cat. 66; Jaspers, Eijskoot and Esser 2015, 149, cat. 35). Another plate searches inspiration in present-day Germany, depicting a Westerwald jug of the first half of the 17th century (Figure 72:5 and cover photo). A parallel has been recovered from an assemblage dated to the third quarter of the 17th century (Gawronski 2012, 259, cat. 871, 325). However, in my opinion, the vessel must be produced somewhere before 1660, as it would otherwise depict an already-outmoded jug, which seems rather illogical. Given the technological and stylistical evolution of tin-glazed wares, 1640 could function as a reasonable *terminus post quem*.

A next series of plates certainly dates to the second half of the 17th century. A first one depicts a crown, the number '4', and the words 'want niet (soo se)er de spijs' (Figure 72:6). The plate is part of a collection of 6 plates, displaying a maxim of 6 verses (Beemster 2009):

wij bidden ù o heer
 sent ùwen seegen neer
 op dees ù milde gaven
 want niet soo seer de spijs
 als wel ù seegen wijs
 ons voede kan en laaven

One dated parallel for this plate is known and reads 1683.¹ The same maxim was also found on products of the 'De Porceleyne Fles' workshop in Delft, owned by Quirijn Aldertsz and his wife Engeltje Kleijnoven. It allows to date the vessels in this workshop between 1660 and 1680 (Ostkamp 2006, 198, fig. 11-13, 199, fig. 14-15). A possible provenance in Delft, and even this very workshop, could therefore be considered.

Whereas the former plate bears a moralising message, others can be seen to serve as a means of propaganda. For example, a nearly-complete plate (Figure 72:7) depicts a portrait of Stadholder Prince William III (PWD3). As William was born in 1650, a *terminus*

¹ <http://hdl.handle.net/10934/RM0001.COLLECT.16314>

post quem can be placed in the late 1660s, since he is clearly not depicted as a child (e.g. Lunsingh Scheurleer 1994, 41, fig. 23). By contrast, the plate must have been produced before 1689, the year he was coronated King of England, Ireland, and Scotland. A parallel was attributed to Delft and confirms its dating c. 1670-1680 (Scholten 1993, 197, fig. 179). A following fragment, depicting a crown, may have been made to commemorate William's enthronement (Figure 72:8). It must thus date after 1689 but before his death in 1702. Other plates deal with more light-hearted subjects, such as an acrobat (Figure 72:9), a collection of fruit (Figure 72:10), or an angel (Figure 73:6).

Parallel to this faience production, plates were continued to be made in the former maiolica tradition, in terms of design, production and glazing. Chinese influences persist, but are now executed in a coarsely fashion (Figure 72:11-12). At the same time, typical Dutch motives were applied, such as a boat (Figure 73:1), fruit (Figure 73:2, 8), or stylised flowers (Figure 73:3). On one plate (Figure 73:4), the letters MA were painted. If this text reads MARIA, it could be seen as an expression of the devotion to Mary. Although this practice is restricted to Roman Catholic circles, the production of Marian texts has been documented for the Northern Netherlands (Korf 1981, 202-203). Rim decorations for these plates in maiolica tradition either consist out of lacework (Figure 73:5) or geometric motives (Figure 73:7). Next to cobalt-blue painting, purple colours make their (re)appearance in the late 17th century (Figure 73:9-11). One plate is decorated with a woman's portrait on the well. She is looking into the mirror which she holds in her left hand (Figure 73:9). The motive serves as a metaphor for the sense of sight (Lenting, van Gangelen and van Westing 1993, 257). Parallels date between 1675 and 1750 (Lenting, van Gangelen and van Westing 1993, 258, fig. 94; Jaspers and Scheffer-Mud 2009, 51, cat. 45)

A final category of plates is undecorated (Figure 74:1-11). In general, they follow the design of their decorated counterparts. However, in one case, a vessel is based on a footring (Figure 74:11). The attribution of plain tin-glazed pottery is particularly problematic. Because of the thin tin glaze, these vessels were provenanced in the Low Countries, with reservation. Production of plain tin-glazed pottery in the Netherlands commences in the 1640s and reaches its peak between 1675 and 1725 (Baart, Krook and Lagerweij 1990, 11). For now, only one type provides a further chronological anchor point. With a broad rim and small well, the so-called *kardinaalschotel* (Figure 74:5-6, 10) would date from the 1670s-1680s onward (van Geenen 2013, 65-66).



Figure 72 Low Countries tin-glazed ware. 1-12: plates (5 and 8 not to scale).



Figure 73 Low Countries tin-glazed ware. 1-11: plates.

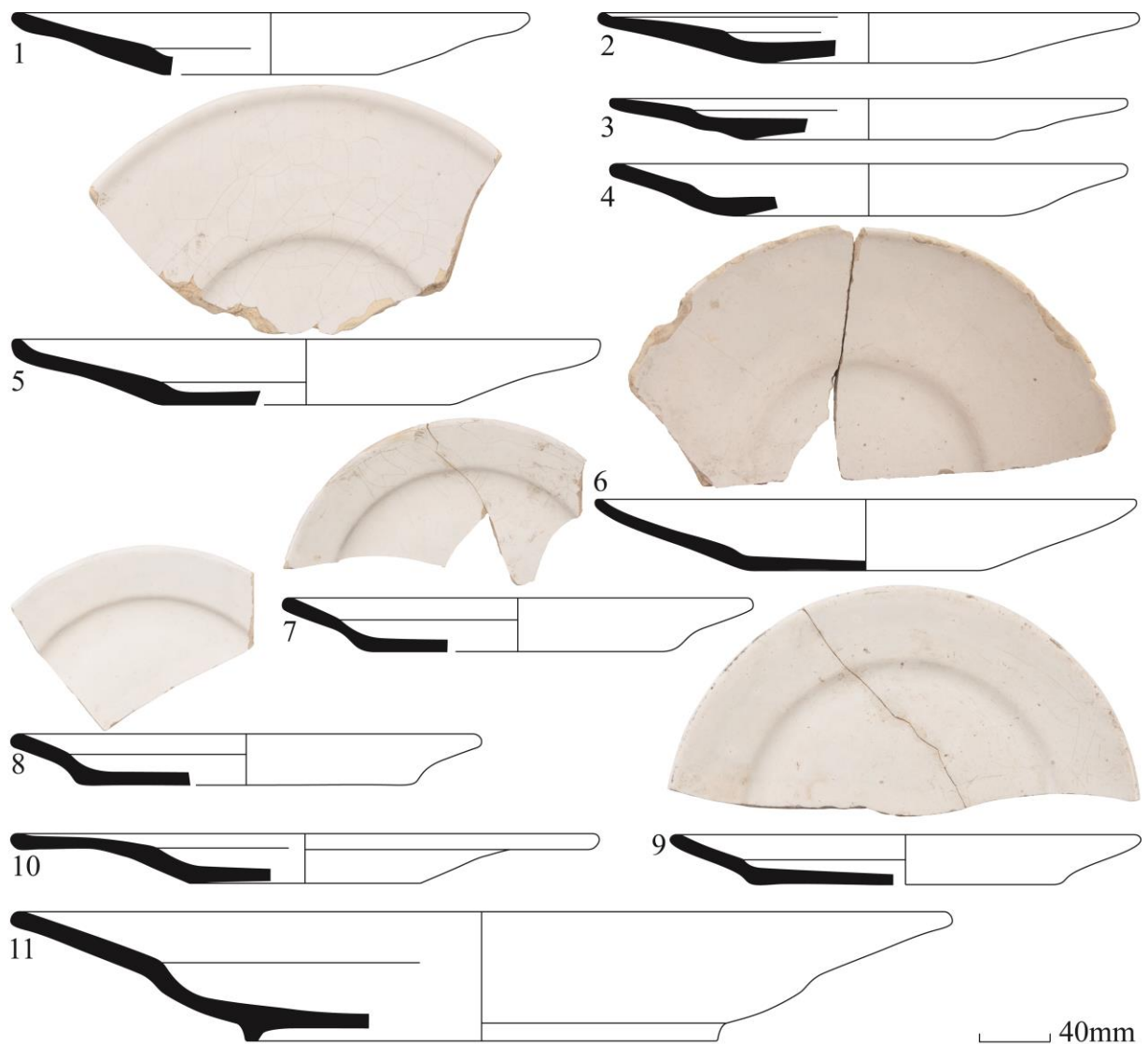


Figure 74 Low Countries tin-glazed ware. 1-11: plates.

Next to plates, several other forms were identified. Four bowls were counted. One is decorated with Wanli motives (Figure 75:1), which dates it to the first half of the 17th century, while the other bowls are fully covered in a plain tin glaze (Figure 75:2-3). The latter bowls are characterised by an everted rim and come both in large and small diameters. Parallels are dated between 1650 and 1725/1750 (Jacobs and van Veen 1996, 87, fig. 113; Jaspers, Eijskoot and Esser 2015, 154, cat. 49). A common decoration scheme with porringers consists of a chequerboard motive with cable pattern on the rim and crosshatched handle (Figure 75:5). As has been argued for the plates, these decorations date such porringers to the late 16th and early 17th century. A following set of porringers (Figure 75:4, 6-8) is decorated with Wanli motives, although not always easily legible because of post-depositional processes (e.g. Figure 75:7). While a next vessel tries to move away from these oriental references, with a floral decoration (Figure 75:9), others are completely undecorated (Figure 75:10-11). Whether the porringer with the five-lobed handle (Figure 75:11) is a Dutch product remains questionable. Parallels have been

attributed to the Netherlands, Italy as well as France and date to the first half of the 17th century (Baart, Krook and Lagerweij 1990, 20, fig. 15a-b, 21; Ostkamp 2014, 27, fig. 74). The lion's share of jugs recovered from the moat are equally undecorated (Figure 75:12-13, 15). One vessel (Figure 75:12) is relatively well-preserved, with a flat base, narrow collar, loop handle and lead gauge. If a Dutch provenance can be assumed for these jugs, they date from 1660 onward (Baart, Krook and Lagerweij 1990, 12). In contrast to these plain tin-glazed jugs, only one base fragment was found to be decorated, in case with a landscape scene (Figure 75:14). Two following vessels associated with drinking are a cup (Figure 75:16) and mug (Figure 75:17). The cup is decorated with a single floral motive on the interior, and flowers connected with tendrils on the exterior. Its presence could indicate the consumption of tea during the latter five decades of the 17th century at Middelburg's castle. Concerning the mug, no parallels were found. A date in the first half of the 17th century seems justified, given its technique and decoration. A final identified form is the ointment jar (Figure 75:18-24). Most are decorated with parallel stripes on the body in blue and orange. Similar patterns were found on ointment jars excavated in Antwerp's Nationalestraat, dated to the end of the 16th-beginning of the 17th century (Dumortier 2002a, 41, fig. 19). A particular jar (Figure 75:19) stands out, because of its size and deviant decoration pattern with floral motives. Finally, one vessel remained undetermined (Figure 75:25). As a closed form with upright rim, it resembles those jars often identified as mustard pots. However, such an identification remains provisional. The body of the jar is externally decorated. Unfortunately, post-depositional processes render this decoration illegible.

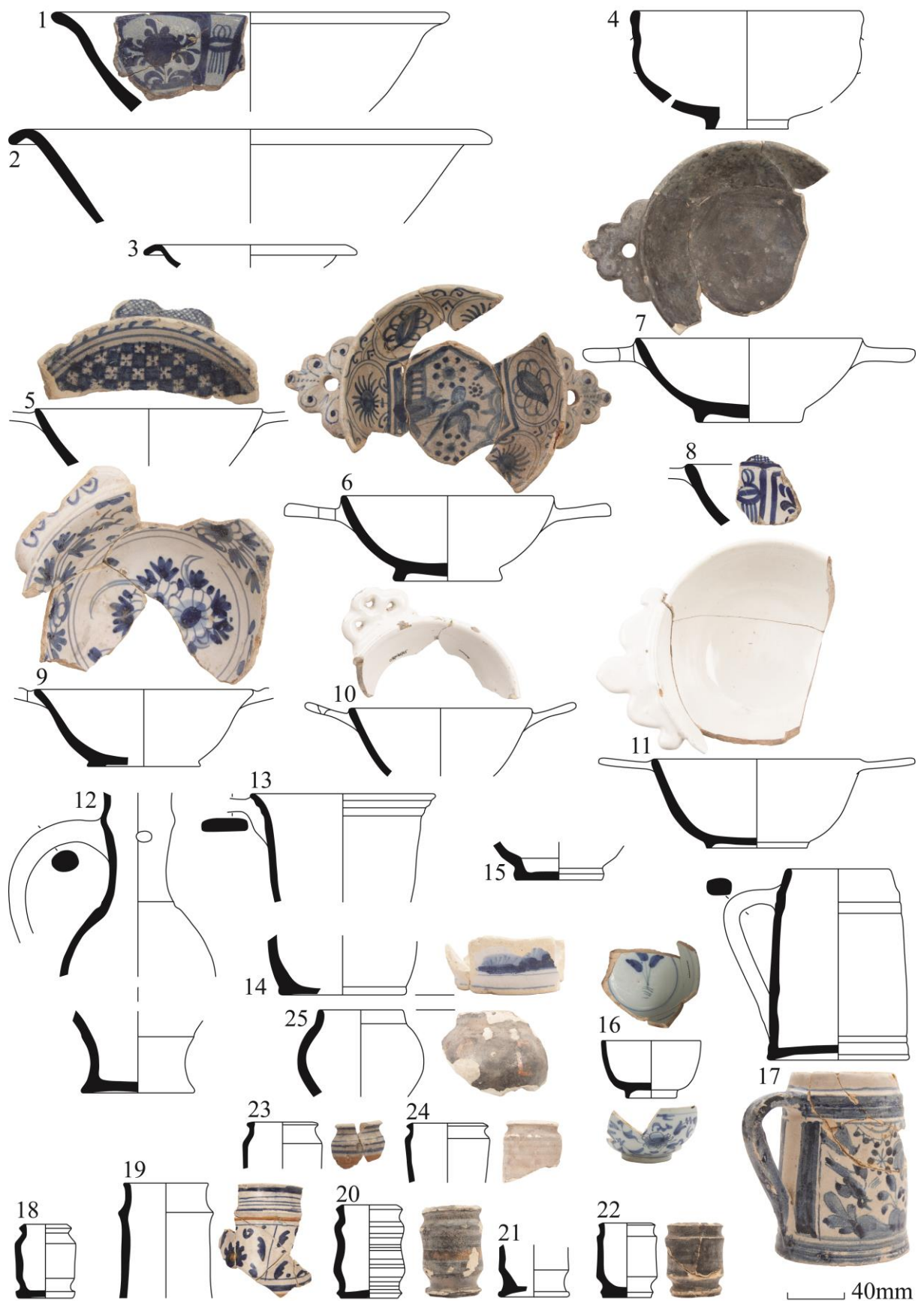


Figure 75 Low Countries tin-glazed ware. 1-3: bowls, 4-10: porringers, 12-15: jugs, 16: cup, 17: mug, 18-24: ointment jars, 25: unknown jar. Unprovenanced. 11: porringer.

4.3.4.6 Mediterranean imports

As they constitute a meaningful whole, I opted to discuss ceramics of a Mediterranean origin together. They follow the chapter on Low Countries tin-glazed ware, as the lion's share of Italian, Portuguese and Spanish ceramics are also covered in a tin glaze.

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4.3.4.6.1 Spanish pottery

The discussion of Mediterranean vessels at Middelburg's castle starts off with the Spanish imports, as they concern some of the oldest finds. A total of 12 fragments were found to be of a Spanish origin. A first is an overall tin-glazed bowl, or *escudilla* (Figure 76:1). It is characterised by sharply-angled sides and a concave inset base. To our knowledge, it concerns the first published example for Flanders. Its ware type is known as Plain White, previously coined as Columbia Plain, and is typical of the period from the late 15th to first half of the 17th century (Gutiérrez 2000, 44, fig. 2.26, 51). The provenance is probably to be found in Seville, and most likely in Triana, Seville's most productive city quarter in terms of pottery manufacture (Goggin 1968, 123; Gutiérrez 2000, 45).

The specific design of this vessel allows to refine its dating somewhat further. Goggin (1968, 121) already suggested that the inset base was an early variant, with footrings dominating in the later periods. This observation is confirmed by Boone's study of 55 *escudillas* at Qsar es-Seghir, a Portuguese garrison in northern Morocco, dated to 1458-1550 (1984, 84, table 6). Moreover, the vessel's rim diameter of 10cm was only recorded for what Boone defined as the middle period (c. 1495-c. 1520)(1984, 85, fig. 4).

Escudillas are sometimes depicted on paintings of Diego Velázquez (e.g. The Kitchen Maid, Art Institute of Chicago, c. 1620). The inclusion of Plain White pottery in these everyday scenes created the notion that this ware type was used by the common Sevillian (Marken 1994, 142). However, the find of this *escudilla* on a high-status site as Middelburg indicates that this meaning must have changed along the way.

A second fragment is part of a large Valencian (Manises) abraded lustreware dish with bryony decoration and was found on the castle's upper court (Figure 76:2). Coll Conesa (2008, 86-87) dates the use of bryony decoration in the production at Manises to the second quarter of the 15th century. Several wide dishes decorated with bryony foliage, like the Middelburg specimen, have been found in the mid-15th-century wreck at Cavoli, Sardinia (Martín-Bueno 1993, 84, 113-120; Martín Bueno 1998, 36, fig. 11). The cargo of the ship included a batch of Valencian tiles decorated with the arms of the Beccadelli family which can be dated shortly before the middle of the 15th century. Other parallels confirm the date of this decoration to the second or even third quarter of the 15th century (e.g.

Hurst, Neal and van Beuningen 1986, 46, fig. 19:45). Indeed, the use of bryony decoration extends to at least 1469, as is evidenced by the vessel likely made for the marriage between Lorenzo de' Medici and his first wife, Clarice Orsini. A second de' Medici and Orsini marriage would possibly date this pattern even later, to 1488 (Blake 1972, 77; Spallanzani 2006, 139, 140, fig. 16). However, the historical context outlined below, makes that this late 15th-century dating is not very likely. Hence, it is certain that this vessel was produced and probably also used during the second quarter and middle of the 15th century, thus during the lifetime of Pieter Bladelin, first lord of Middelburg and confidant to the Dukes of Burgundy. The date of deposition is harder to determine. A dish with similar decoration was found in an early 16th-century assemblage at the Wealthy Clares abbey of Beaulieu, indicating that these goods had a long use-life (De Groote 1992, 363, fig. 31). As for Middelburg, the small size of the sherd suggests that it was already discarded in the castle's moat in the 15th century, and that the moat was repeatedly cleared out in the years following its deposition. The lion's share of the ceramic material found in the moats is namely of a 16th- and 17th-century date. It is but this one fragment that certainly dates to the 1400s.

Mature Valencian wares are the most prevalent in De Groote's inventory of Mediterranean imports in Flanders (2014). Over two hundred refitted fragments are known, with the greater part deriving from the fishing village Raversijde (Pieters *et al.* 2013). For inland Flanders, the distribution of lustreware is restricted to large trade towns and monastic sites (De Groote 2008b, 41). As with Italian maiolica, De Groote connects the presence of Spanish tin-glazed wares in these monastic sites to the cult of the Holy Virgin (see also Blake (1999) and Blake *et al.* (2003), where Mediterranean vessels in England have been associated with the cult of the Holy Name of Jesus). The presence of Spanish maiolica on several castles (e.g. Aalter (Schynkel *et al.* 2012), Herzele (Beeckmans 1989), Koekelare (Dewilde *et al.* 1990), Steenhuffel (De Groote 2014, 7), and now also Middelburg) should not stand in contrast to this observation, as most castles were equipped with a chapel (De Groote 2014, 9). However, in the case of Middelburg, other factors can be added to the choices made in acquiring and using this dish.

First of all, Middelburg is located in the immediate coastal hinterland of the harbour towns of Bruges and Sluis. The area, as the whole coastal region of Flanders, shows a significant clustering of 15th-century Valencian pottery on a wide range of sites (monastic, noble, rural, urban) when compared to the inland sites. Here, as mentioned above, Valencian imports indeed seem to have been largely restricted to monastic and noble residences. Next to religious motives, it might therefore well be that Valencian pottery was simply more easily accessible near the coast. Direct contacts are most likely between local people (e.g. as pilots in the Raversijde case, or by personal contacts in the harbours) and merchants or sailors from the Mediterranean, who sold valuable merchandise which they took along in their personal belongings (called *portage*)(De Clercq *et al.* 2015, 163).

A second option and perhaps a more plausible one in the case of Bladelin, is the interpretation of the Middelburg dish in the well-established Burgundo-Aragonese network of political contacts. The close connection that was established in the 15th century between the Dukes of Burgundy and the Aragonese kings, who controlled the pottery production in Valencia, is clearly attested and evidenced by dishes produced in Manises and bearing the Burgundian coats-of-arms, imported into Bruges via Sluis (Hurst, Neal and van Beuningen 1986, 42). Although the central motive on the well was not preserved, the find in Middelburg can perhaps also be framed within this exchange of luxury objects that took place between the courts of Alfonso V (r. 1416-1458), King of Aragon, and Philip the Good (r. 1419-1467), Duke of Burgundy (De Clercq *et al.* 2015, 153). This argument has been furthered for a set of Valencian floor tiles that was found on Middelburg's castle, produced on demand, and some decorated with the initials of Pieter Bladelin. Bladelin could have acquired these tiles through his *personal contacts with foreign merchants in Bruges* (De Clercq *et al.* 2015, 164). However, it is suggested that the tiles arrived in Middelburg in the context of geopolitics in the Mediterranean, with Bladelin as an active mediator in the most intensive contacts between the Burgundian and Aragonese courts during the 1440-50s (De Clercq *et al.* 2015, 164). The dish that is discussed here should probably also be understood in the context of these mid-15th-century political developments. As with the tiles, it displayed the established political bonds between Burgundy and Aragon and the role played by Bladelin in this process.

A final group of fragments with a Spanish provenance are part of so-called olive jars. With 10 non-diagnostic body sherds, these vessels are only present in limited numbers. Nevertheless, a certain concentration can still be noticed. Seven fragments, of which 5 are certainly of the same vessel, cluster around the northern tower of the upper court. As these olive jars are lacking in Middelburg assemblages dating to the 16th and early 17th centuries, it could be suggested that these vessels are to be associated with later 17th-century consumption. However, this argument of absence is, admittedly, not a very compelling one.

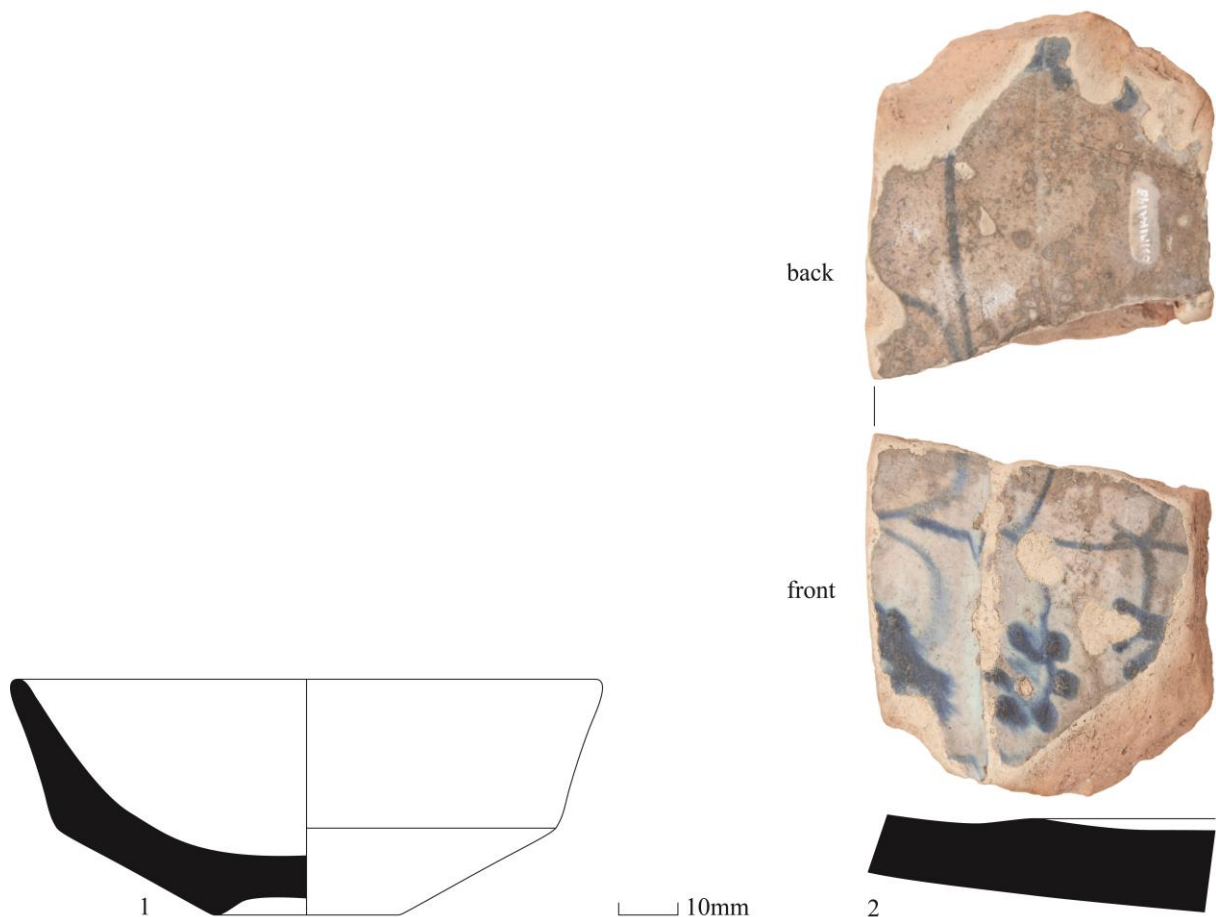


Figure 76 Seville (Triana?), 1: *escudilla*. Valencia (Manises), 2: dish.

4.3.4.6.2 Italian pottery

In the Middelburg assemblage, 94 sherds of Italian pottery were found, representing a rim-based minimum of 18 individuals (12 fluted dishes and 6 plates). Of the total amount of sherds and individuals present on Middelburg's castle, this category forms respectively 0.24% and 0.26%. It is possible that these numbers are too low, as it is especially its particular decoration that allows to distinguish Italian maiolica as such. Some of the plain white tin-glazed body sherds may therefore have been wrongfully registered as Dutch. Their numbers must, however, be limited.

Table 14 shows the different provenances attributed to these sherds and individuals. The largest group consists of those vessels that are certainly and possibly from a Montelupo origin. Their percentage of individuals is remarkably high, and can be explained by the presence of some highly-fragmented fluted dishes, resulting in many rim fragments and, thus, individuals. In terms of sherd count, vessels of an Adriatic origin are second best represented. They are followed by ceramics of an unknown provenance, mainly plain white fluted dishes, and, finally, by pottery originating from Liguria.

Table 14 Quantification of different provenances.

	Montelupo	Montelupo?	Adriatic (Faenza?)	Liguria	unknown	total
sherds	17	25	26	3	23	94
sherds%	18.09	26.60	27.66	3.19	24,47	100
MNI	4	8	3	0	3	18
MNI%	22.22	44.44	16.67	0.00	16.67	100

In the 16th century, Montelupo is said to have a near monopoly on the trade of polychrome maiolica in the Mediterranean and Northern Europe (Hurst, Neal and van Beuningen 1986, 12). It should thus not come as a surprise that this production is also best represented at Middelburg's castle.

A first vessel (Figure 77:1) from Montelupo consists of fragments found in the moat to the east of the lower court and of a sherd recovered from one of the lower court's garderobe chutes, indicating that the vessel was discarded in the late 16th century. The vessel was previously misidentified as an Antwerp production (Poulain, De Groote and De Clercq 2013, 6, 8, fig. 6:20). This misidentification is telling of the current lack of knowledge on Italian maiolica imports in Flanders, as stated above. The plate has an outwardly-kinked rim and concave base. Except for this base, the fragment has an overall white-coloured tin glaze. The inside is decorated with polychrome motives of stylised helmets? and shields (see Berti's decoration pattern 29 *armi e scudi* [1998, 124]). It is dated to 1490-1510 (Berti 1998, 273, fig. 89), meaning that the plate was used over several generations before it was deposited in the castle's chute and moat. A parallel has been found on the site of the *Parijse Hallen* in Bruges, but the find and its context remain unpublished.

A following vessel (Figure 77:2) can also be identified as a plate. It consists of a simple, outwardly-bent rim, with a tin glaze on both the in- and outside. The exterior is decorated with several concentric circles, while the interior depicts a geometric interlace in blue, normally connecting different lozenges (not preserved). This decoration pattern is termed a *losanghe* or, following Berti (1998, 192), *nodo orientale evoluto*. Published examples are dated 1550/70-1580/90 (Berti 1998, 363, fig. 282, 364, fig. 284-5; Thornton and Wilson 2009, 213, 214, fig. 134) and 1590-1610 (Berti 2015, 89, fig. 11, fig. 12), but this dating should perhaps be stretched to 1550-1630 (pers. comm. Fausto Berti). During this period, this decoration pattern can be considered as one of the most diffused ones (Berti 1998, 192). It would particularly be common on Montelupo products of the second half of the 16th century (Thornton and Wilson 2009, 213). No similar net patterns found have thus far been found in earlier 16th-century wasters at Montelupo (Hurst, Neal and van Beuningen 1986, 15, fig. 2.3). As the vessel is only partly preserved, it is difficult to say whether it concerns a monochrome (e.g. Berti 1998, 364, fig. 285; 2015, 89, fig. 11) or polychrome dish

(e.g. Berti 1998, 363, fig. 282, 364, fig. 284; 2015, 89, fig. 12). Parallels in Northern Europe have been documented for Amsterdam (Baart 1983, 175, fig. 8) and Kinlochbervie, Scotland (Brown and Curnow 2004, 34, 35, fig.6:15-18, 37, fig. 7).

A next group of sherds (Figure 77:3-5) all belong to a polychrome fluted dish or *crepina*. The fluted dish was one of the innovations made in early 16th-century Faenza, copying metal forms (Hurst, Neal and van Beuningen 1986, 22). However, the vessels found in Middelburg most likely originate from Montelupo, and imitate these Faentine *a ricamo* prototypes (Thornton and Wilson 2009, 213). Their fabric is fine, hard and grey-coloured. As such, it is rather different from the other Montelupo productions described above with whiter fabrics (Hurst, Neal and van Beuningen 1986, 23). The decoration pattern has been coined as *compendiario 'a settori'* (Berti 1998, 197). *Compendiario* refers to sketchy blue, yellow and orange decorations on a white background. The decoration style originated in Faenza around 1550 and then successfully spread to different production sites across Italy (Jaspers 2011b, 16-17). *A settori*, on the other hand, makes reference to the different panels which decorate the internal flutes. Broad radial panels are divided into smaller triangular ones, and alternate with narrower panels, each with pointed edging. The panels are filled up with geometrical and floral motives in blue, orange, yellow and green. The well depicts a walking human, angel or putto with a staff or spear. Different parallels allow to provide a dating for these vessels. For example, with a Montelupo plate preserved in the Victoria & Albert Museum, the broader panels are also subdivided in smaller ones. It is dated 1560-1580 (Berti 1998, 374, fig. 308, 375; Thornton and Wilson 2009, 212, 213, fig. 133). A similar stylised polychrome flower can be found on a vessel dated 1590-1620 (Berti 1998, 376, fig. 312). A parallel for the monochrome floral motive in the trapezoidal panel confirms a dating for this group of fragments in the second half of the 16th and early 17th century, as it is dated between 1580 and 1620 (Berti 1998, 376, fig. 313). As with the finds above, this decoration pattern seems to have been widely diffused. Parallels are, once again, found in Amsterdam (Baart 1983, 176, fig. 12) and at the Kinlochbervie site in Scotland (Brown and Curnow 2004, 34, 35, fig. 6:11-12). The latter is particularly striking as it also is decorated with diagonal stripes on the back.

A second group of fragments is decorated in *berrettino*, consisting of both a blue tin glaze and decoration. This decoration type was first produced in Faenza, but only *berrettino* from Veneto and Liguria was thus far found in the Netherlands (Jaspers 2009, 3; 2011a, 12; 2011b, 12-13). Ligurian *berrettino* is rather rare in the Middelburg assemblage. Only three sherds were found, of which one is depicted here (Figure 77:6). The crossing arcs decorating the background are known as *cestino* and are typical of Ligurian productions from the second half of the 16th century onward (Jaspers 2011b, 13; Wrathmell *et al.* 2016, 81). It is, however, impossible to differentiate between the different ceramic centres (e.g. Albisola, Genoa and Savona) on a visual basis (Hurst, Neal and van Beuningen 1986, 26). Similar arcs can be seen on a plate dated 1575-1625 (Hurst, Neal and

van Beuningen 1986, 29, fig. 11:22). It might indicate that this fragment could once again be placed in that transition of the 16th to 17th century.

That Ligurian *berrettino* is hardly present in Middelburg, constitutes a possible difference between the Southern and Northern Netherlands, where such finds are more frequent and can be dated from the second half of the 16th century onward. In contrast, most of the *berrettino* vessels in Middelburg, described below, resemble Faentine productions of the first half of the 16th century. However, an attribution to Faenza remains uncertain. The provenance is therefore placed in the wider Adriatic region, also comprising other production centres in Veneto and Romagna.

A first example is a base fragment of a plate (Figure 77:7). Its well is decorated with a monochrome *a trofei* decoration in blue. A similar pattern can be seen on Faenza vessels, dated to the second quarter of the 16th century (Sannipoli 2010, 315). This decoration pattern is rather rare, as such trophies are mostly used as a complementary frieze to the central decoration on the well, not as the dominant figuration (Sannipoli 2010, 303). The Faenza parallels furthermore resemble this Middelburg vessel in the decoration of the back. The base is decorated by two lines, with four squiggles radiating away from this base, to the rim. For a body and rim fragment of a plate (Figure 77:8-9) only the decoration on the back is preserved. For the body fragment, wavy rays can once again be seen, framing an undetermined pattern. The rim fragment displays a pattern of hatched concentric circles. A possible parallel for both decoration schemes is depicted in the 1942 aquarelle of Luigi Girelli and dates 1534 (Bojani 1997, XVII). It confirms the dating of this Faentine *berrettino* in the second quarter of the 16th century.

The provenance of a final group of vessels remains uncertain, although they most likely originate from Montelupo and date to the second half of the 16th century (pers. comm. Carmen Ravanelli). A first series of vessels consists of identical fluted dishes. Two of the eight individuals are depicted here (Figure 77:10-11). They are characterised by an upward-flaring rim, angular design of the footring, and a thick overall white tin glaze. The inside is decorated with oak leaves in blue (*a fogliami partiti* or *foglia bleu*). It is this bipartite blue leaf decoration that justifies the Montelupo attribution. Similar examples have been published by Berti (1998, 369, fig. 297, 298). Three other *crespine* do not display this decoration pattern, although this might be the result of their fragmentary preservation. For these three individuals, we have refrained from assigning a specific provenance, although they follow the possible Montelupo vessels in their rim design. Two plain body fragments of a fluted dish were furthermore found in one of the garderobe chutes on the upper court of the Middelburg's castle (De Clercq *et al.* 2007, 15, 17). It shows that *crespine* were certainly in use in the Low Countries from the late 16th century or early 17th century onward.

A following fragment is part of a vase (Figure 77:12). The vessel is based on a footring and opens up near the rim. The body is cylindrical and is decorated with a *compendiario* aigrette motif in yellow and blue. As with the finds above, a provenance in 16th-century

Montelupo can be assumed (pers. comm. Carmen Ravanelli). This stands in contrast to the many *compendiario* finds in the Netherlands that likely originate from Liguria (Jaspers 2011b, 17).

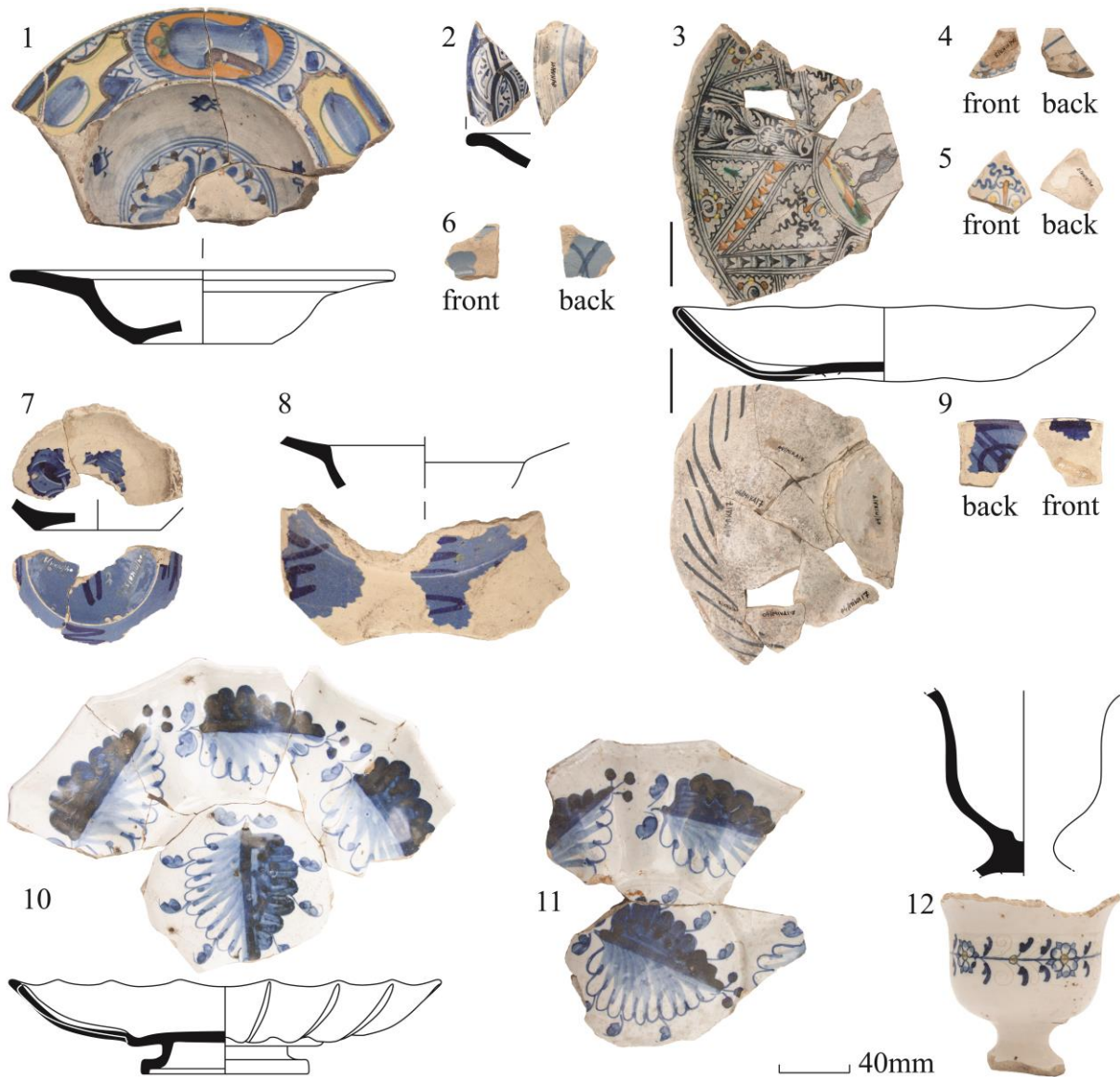


Figure 77 Montelupo, 1-2: plate, 3-5: fluted dish. Ligurian *berrettino*, 6: plate. Adriatic (Faentine?) *berrettino*, 7-9: plate. Montelupo?, 10-11: fluted dish, 12: vase.

When these Italian ceramics are plotted onto the excavation plan of Middelburg's castle (Figure 78), some interesting observations can be made.

Contrary to what one would expect, most Italian ceramics were found on the lower court, the place where personnel is normally accommodated and household activities are performed (De Clercq, Dumolyn and Haemers 2007, 17, 19). Moreover, a particular cluster can be noticed near the rectangular extension of this lower court. This extension lengthens the façade facing the city, creating *the impression of a much larger building* (De Clercq, Dumolyn and Haemers 2007, 17). The presence of Italian maiolica on the lower court can be explained by the fact that Middelburg's castle architecture probably did not

fully respond to the normal plan. The building was equipped with a reception room in the lower court, which confronted the visitor with the wealth, power and noble identity of the castle's occupant. This reception room was already conceived as such by Bladelin, first lord of Middelburg, as many fragments of the afore-mentioned tin-glazed Valencian floor tiles were found in this area, bearing the emblem of Bladelin and of the Order of the Golden Fleece, of which he was treasurer (De Clercq, Dumolyn and Haemers 2007, 17, 23, fig. 4, 24; De Clercq *et al.* 2015). The clustering of Italian pottery, but also of the Spanish *escudilla*, discussed above, in the northeastern corner seems to reveal that the reception room must be situated in or near the rectangular extension. As none of the ceramics date to the life of Bladelin, the ceramics furthermore show that the important function of this room must have lived on throughout the later 15th to early 17th century.

Chronologically, it is furthermore of particular interest that the distribution of late 15th and early 16th-century maiolica (Figure 77:1, 7-9) is limited to the lower court. Finds on the upper court, by contrast, are restricted to a Ligurian *berrettino* plate (Figure 77:6) and Montelupo(?) fluted dishes (Figure 77:10), which date from the second half of the 16th well into the 17th century. The production dates of the early lower court finds fall together with the rule of Guillaume II Hugonet (1493-1537), the third lord of Middelburg. These finds must, however, been kept in use after his death by his daughter and son-in-law, as one find (Figure 77:1) was recovered from a late 16th-century fill of one of the lower court's garderobe chutes. In that later 16th century, the spatial distribution of Italian pottery on the castle shows a dramatic shift. Italian ceramics are now found on both the upper- and lower court and have thus lost their exclusive connection to the afore-mentioned reception room, although the main concentration remains in that area.

Italian soldiers must have been present at or near Middelburg's castle, when Ambrogio Spinola reconquered Middelburg on July 27, 1604 (Martens 2006, 300-301). The purchase of these relatively-expensive ceramics by soldiers seems however unlikely, as they mainly appealed to low-cost, locally-produced ceramics (Poulain, Pieters and De Clercq 2016). The use of these vessels may therefore rather be linked to the period prior to military occupation, the civilian interlude after 1590, or to the more prosperous period after the Twelve Years' Truce. It remains however possible that these goods were discarded under military occupation. The deliberate destruction of objects with reference to former occupants has already been suggested for some of the finds at Middelburg's castle (e.g. De Clercq *et al.* 2007, 32).

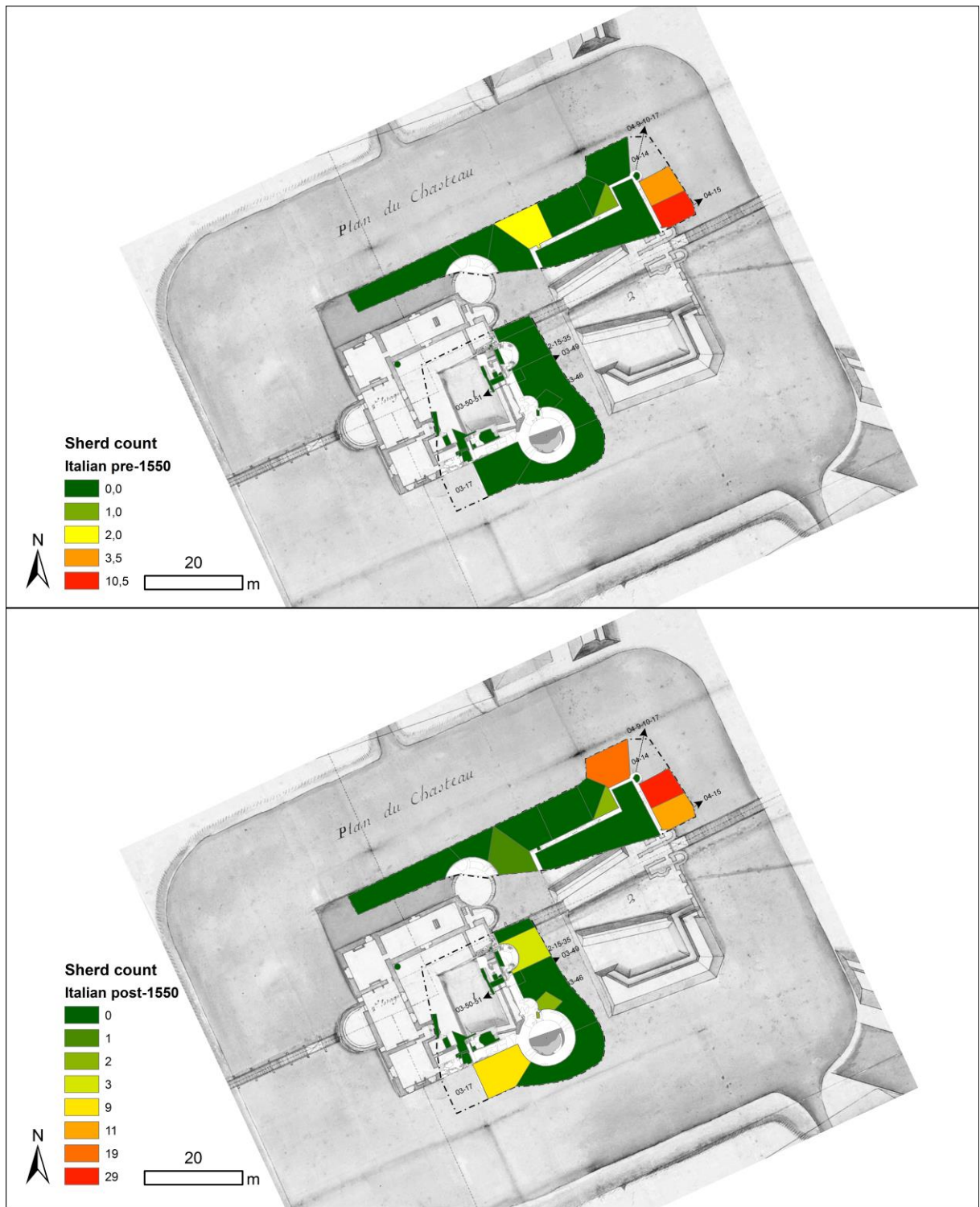


Figure 78 Distribution of Italian sherds in the excavated units. A sherd found on the interface of two assemblages was divided between those two assemblages, explaining the decimal places in the legend.

4.3.4.6.3 Portuguese pottery

A final category of Mediterranean imports has a Portuguese provenance (Figure 79). Six faience fragments were identified, belonging to four individuals, two on the upper court

(Figure 79:1-2) and another two on the lower court (Figure 79:3-4). The main period of Portuguese imports into the Low Countries starts around 1610 (pers. comm. Nina Linde Jaspers) and ends c. 1660 (Casimiro 2011, 150). These vessels most likely originate from Lisbon, as no imports from other production centres are currently known in Flanders and the Netherlands (Claeys, Jaspers and Ostkamp 2010, 140).

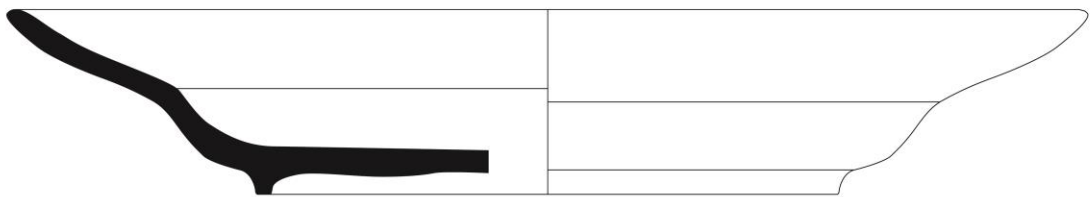
What is immediately apparent, is the difference in quality of painting and glazing between the upper and lower court finds. The lower court finds consist of a plate (Figure 79:3) and fluted dish (Figure 79:4). The plate is characterised by a sharp break from well to lip, which is decorated with a geometrical motive of arches and dots. On the exterior, blue lines are painted, connecting rim to base. These stripes are a recurrent decoration pattern, as they can also be seen with the fluted dish. This vessel is furthermore covered with a high-quality tin glaze and Chinese decorations, displaying chrysanthemums on a comparted lip. Portuguese potters already started using such oriental motives in the last two decades of the 16th century (Casimiro 2011, 133). This particular vessel should, however, be dated between 1610-35, a period where Chinese models are faithfully reproduced (Casimiro 2011, 145).

The finds on the upper court concern two plates. A first, archaeologically-complete vessel (Figure 79:1) has a rounded rim, break from lip to well, and a flat base on a footring. Both the in- and exterior are decorated. On the inside, the well displays floral motives, while the lip is painted with half concentric circles. The latter motive is frequently found on everyday wares from about 1640 (Casimiro 2011, 139). A parallel for the decoration on the second plate (Figure 79:2) was not found, although the zigzag pattern on the lip could also be indicative of the period 1635-1660, when Portuguese faience loses its decorative refinement (Casimiro 2011, 146). Similar patterns are known on faience plates produced in the Netherlands. A possible provenance in the Low Countries should therefore also be considered.

It thus seems that there is a differentiated dating between the finds of the upper and lower court. The dates for the finds at the lower court range from 1610 to 1635. By contrast, the vessels at the upper court are more recent, and date between 1635 and 1660. It could be suggested that this pattern reflects the destruction of the upper court, inflicted by the acts of war of 1604, possibly rendering it uninhabitable or only partly inhabitable in the following 30 years.



1



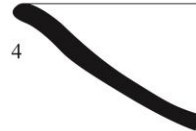
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Figure 79 Portuguese (Lisbon?) faience, 1-3: plate, 4: fluted dish.

4.3.4.6.4 Preliminary conclusion

Before moving on to the remaining ceramic categories, the information provided by the Mediterranean imports is drawn together.

The presence of Mediterranean maiolica at the castle of Middelburg constitutes an important find for Flanders, as it concerns the largest collection of finds documented in an excavation context. A wide range of provenances was identified, with ceramics coming from Spain, Portugal and Italy. Spanish pottery was imported from Seville (Triana?) and Valencia (Manises), and illustrates the changing meaning of pottery and its use in the construction of a noble identity. A Plain White *escudilla*, a common good in early 16th-century Seville, possibly functioned in the lower court's reception room, which confronted the visitors of the castle with the status of Middelburg's lord. This process of display and identity-building was not new, as is evidenced by a lustreware plate dating to the life of Pieter Bladelin, founder of Middelburg. In using this dish, Bladelin expressed his position among European courts. That such dishes were indeed present in late medieval court spaces is illustrated by the vessels depicted in the Book of Hours for Engelbert of Nassau, dated to the 1470s.

The Portuguese ceramics highlight another aspect of life on Middelburg's castle and possibly attest to the destruction of the upper court following the 1604 attacks. As the finds on the upper court can only be dated from 1635 onward, it could indicate that this area of the castle remained uninhabited for about 30 years.

Finally, the assemblage sheds an interesting light on the differences in supply and consumption of Italian wares between the Netherlands and Flanders. For the first half of the 16th century, the general pattern observed in Flanders significantly differs from the Netherlands, where Italian pottery seems to be nearly completely lacking. Following De Groote (2014), the consumption of Italian ceramics in Flanders originated in a monastic context. However, the development of Antwerp as one of Europe's main ports, at the expense of Bruges, and the prominent role played by the Italian community in this process, entailed that these goods lost their religious connotation and began to be appreciated by a broader public of well-to-do.

At Middelburg's castle, the location of this early maiolica near the lower court's reception room illustrates the new representative status Italian ceramics had acquired. Their value can be deduced from the fact that they were in use for multiple generations. Already for the late medieval period, De Groote observed that most of the finds are older than the assemblage in which they are found (2014, 3). The fact that these vessels were thrown away after all, despite their monetary value, should perhaps be linked to the troubles of the 1570s and 80s, as the fill of the chutes on the upper and lower court, in which some Italian fragments were found, is likely related to military activity. As with the several intact liturgical toys (De Clercq *et al.* 2007, 32, fig. 18) and possible tankard of the Catholic canon Adolf d'Hooge (Poulain, De Groote and De Clercq 2013, 15, fig. 11), these

Italian ceramics may have been deliberately discarded because of their reference to the beliefs and values of the castle's occupants.

Changes can be noticed at the turn of the 17th century. As the Dutch take over the trade in Italian pottery, Ligurian imports now also surface at the castle of Middelburg. However, the situation continues to differ with the Netherlands, where Ligurian imports make up nearly half of Italian imports on sites before 1600, and about a quarter in the first half of the 17th century (Jaspers 2011b, 13). Whereas 16th-century Italian ceramics are associated with high- and middle-class households, this is no longer the case for the 17th century since the elite was shifting its desire for Mediterranean ceramics to the more expensive Chinese porcelain (Baart 1991, 234). As only 1 porcelain individual was counted (0.02% of the total ceramic collection), it could confirm that Middelburg indeed never regained its pre-war status, with less wealthier families or bailiffs now inhabiting the castle.

4.3.4.7 Stoneware

The stoneware in the Middelburg assemblage comprises of 1981 sherds, representing a minimum of 227 individuals (184 jugs, 9 *Pinten/Schnellen*, 7 storage jars, 3 spouted jars, 2 flasks, 6 oil jugs, 2 cups, 1 (mustard?) pot, 1 spindle whorl, 3 chamber pots, 1 bottle, 1 drinking cup, and 7 unidentified vessels). The southeastern corner of the upper court and the zone adjacent to the northern boundary wall of the lower court show low densities of stoneware (Figure 80). However, this distribution mainly follows the overall spread of pottery on the site (Figure 43).

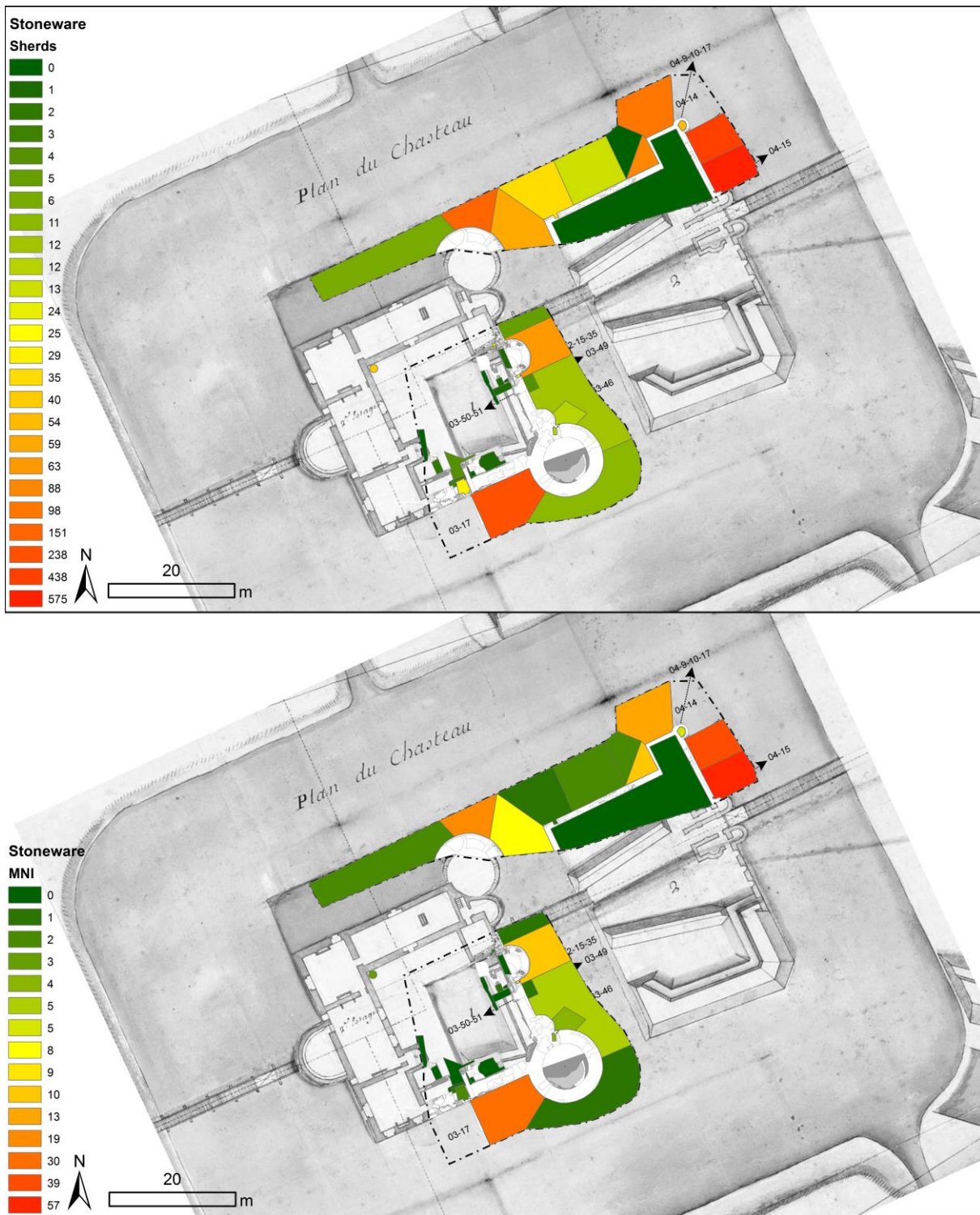


Figure 80 Stoneware (sherds and MNI) at Middelburg's castle.

All major stoneware production centres are represented, with dates ranging from the late 15th to early 18th century. One of the oldest finds, is a Siegburg drinking cup (Figure 81:1). Its use is associated with the consumption of wine. The drinking cup is therefore often found in more wealthy assemblages. However, this does not entail that the cup itself was expensive (Ostkamp 2012, 44). It should rather be seen as a cheap commodity, functioning in high-end practices. Parallels are dated to the late 15th and

early 16th centuries (Gawronski 2012, 149, cat. 209, 317; Ostkamp 2012, 127, cat. 1). By contrast, another fragment (Figure 81:2) is characteristic of Siegburg's later 16th-century production. It concerns a decorated *Schnelle*, depicting a building. This fragment could possibly be part of a larger scene referring to the Parable of Lazarus (compare Hähnel 1987, 226, fig. 376, 227). The production of such *Schnellen* with relief ornament, with a wide range of mythological, biblical and allegorical scenes, is dated to the second half of the 16th century (Hurst, Neal and van Beuningen 1986, 177; Gaimster 1997, 166). Although visually attractive, these *Schnellen* are outnumbered by the undecorated, smaller *Pinten* (Figure 81:3-7). Cups were also used for drinking. One vessel (Figure 81:8) originates from Bouffioulx but is unfortunately never narrowly dated (Matthys 1971, 27, fig. 7:39-41; De Smet and De Meester 1988, 52, fig. 85). A second cup (Figure 81:9) is finished with a lobed footring, indicating that it concerns a production of the first half of the 16th century. Because of its small dimensions, a jug (Figure 81:10) can also be exclusively associated with drinking purposes. It is a Cologne production dated to the second quarter of the 16th century (Ostkamp 2012, 47). Parallels for this so-called *Zylinderhalskrug* (referring to its cylindrical neck) or oak jug (because of its decoration with oak leaves and acorns) were found in wasters from the Maximinenstraße kilns (Hurst, Neal and van Beuningen 1986, 208, 209, fig. 101.326; Reineking-von Bock 1986, 231, cat. 265; Unger 2007, 211 et passim). For the Low Countries, parallels are found in the stoneware stock of Jan-Peterss and Cornelis-de-Kanneman, two Bergen op Zoom merchants, in this case however with roses and rose leaves instead of acorns (Vandenbulcke and Groeneweg 1988, 345, fig. 3:5; Groeneweg 2000, 128, fig. 4:d), but also in Aalst (De Groote *et al.* 2004, 335, fig. 51:10) and Oldenzaal (Ostkamp 1999, 83).

Another vessel with an early dating, is a flask with decoration of a face on the neck (Figure 81:11a-d). It resembles the incised and applied faces on piper jugs from Aachen and Raeren, generally dated around the turn of the 15th and 16th century (Hurst, Neal and van Beuningen 1986, 191, fig. 93.297, 192, 194). The piper jugs can be seen as precursors of the 16th- and 17th-century *Bartmann* jugs. There are many theories on the origin and meaning of this peculiar decoration pattern. For example, it has been explained as an apotropaion, fertility symbol, reference to the mythical figure of the wild man, manifestation of the individual self, a portrait, the figure of Christ or the Holy Trinity (van Hees 2006, 8-13; Ostkamp 2007, 53-55; Unger 2007, 71). Several of these *Bartmänner* have been identified in this assemblage. A first vessel (Figure 81:12) combines the *Bartmann* applique with a set of arms, often seen on piper jugs. It is the only vessel without a brown engobe and possibly originates from Cologne. A second jug, decorated with a band of stylised foliage (?) with alternating acanthus leaves and medallions on both sides of this central band (Figure 81:13). Its ovoid body is dated to the 17th century (e.g. Hurst, Neal and van Beuningen 1986, 217, fig. 106.335). Together with the mottled aspect of its salt glaze, Frechen is the most likely provenance. With a similar vessel (Figure 81:14), only a

small part of the *Bartmann* applique is preserved. It is furthermore decorated with several identical medallions of an imaginary coat of arms, depicting a crossed trident.



Figure 81 Rhenish stoneware. 1: drinking cup, 2: *Schnelle*, 3-7: *Pinten*, 9: cup, 10: jug, 11a-d: flask, 12-14: jugs. Bouffioulx stoneware. 8: cup.

Although *Bartmann* jugs are often associated with Frechen or Cologne productions, the decoration pattern was also applied in other centres. An example from Raeren has a part of its pewter lid still preserved and is decorated with two medallions, one with a bust and inscription of IVLIVS C(AESAR) and one with a hatched coat of arms featuring a peacock (Figure 82:1). The latter might refer to the famous Raeren potter Jan Emens, as his workshop was situated in the hamlet *Pfau* (peacock)(Mennicken 2013, 455). A final vessel with *Bartmann* decoration is a jug with an oblique band, with alternate right and left facing animal heads (of deers?) and foliage in between (Figure 82:2). It concerns a Siegburg production and has been dated between 1568 and 1605 (Hurst, Neal and van Beuningen 1986, 184, pl. 34).

As with the mark of Jan Emens, other potter's marks also point to a provenance in Raeren. Two jugs are decorated with an identical medallion consisting of a feathered coat of arms with a jug and cross, to which three M's are connected (Figure 82:5-6). The mark has been identified as the one of Meister Merten Mennicken (Hellebrandt 1967, 62, 65, fig. 55; Kohneman 1982, 54). Another Raeren production is only preserved by a body sherd and depicts a soldier in an architectural frieze with the date 1602 (Figure 82:4). A parallel is published by Kohneman (1982, 142). A following vessel (Figure 82:7) with a medallion of a bird (a common crane), jug and cup on a potter's wheel, with initials EK, is also likely of a Raeren origin. The initials possibly refer to Everhart Kalf (1593-1637) or Engel Kran (1550-1605)(Hellebrandt 1967, 68, 70), both Raeren potters. Given the depiction of a common crane on the potter's mark, Engel Kran seems the most likely candidate. A further argument for this attribution is that similar jugs are dated to the late 16th century (Hurst, Neal and van Beuningen 1986, 200, fig. 96.313), corresponding to Kran's production period. Other medallion jugs can also be placed in that time period, as is illustrated by a vessel dated 1577 (Figure 82:8). The jug is furthermore decorated with the coat of arms of the KVNING ZV DENNEMA(RK). The king of Denmark then in power was Frederick II. His foreign policy was characterised by support for the Protestant cause (Lockhart 2004). Several protestant troops prove to be present at Middelburg's castle in the 1570s and 80s (see '4.1 Middelburg-in-Flanders: location and history' and 'Appendix'). The vessel may thus well have belonged to one of these Protestant soldiers.

The application of decoration on Raeren productions reaches its height in that same period, with the development of panel jugs by Jan Emens in the 1570s (Hurst, Neal and van Beuningen 1986, 194). Several of such jugs are present at Middelburg's castle. One body fragment is part of a Peasant Dance jug (Figure 82:3), characteristic of the last quarter of the 16th century (Hurst, Neal and van Beuningen 1986, 202). The sherd depicts dancing peasants, part of an inscription (ICH VERDANS) and is dated 1595. Another vessel was produced one year later, in 1596 (Figure 82:9). It concerns a Seven Electors jug, with the moralising proverb (DE) PESSER EN DIE KAN HAT MICH GEMACHT SU EINEN ERMEM MAN WIE ICH (NICHTS MEHR HABE SO MUSS ICH LASSEN AB). A parallel was found in Woerden, the Netherlands (Jezeer 2009, 35, cat. 1). This particular vessel could be

considered as an early example of a Seven Electors jug, as most of these would be dated to the first decade of the 17th century (Hurst, Neal and van Beuningen 1986, 204). Other vessels are also highly decorated, but have not retained the panel design. Their decorations are characterised by geometric and floral motives on the body, with medallions on their cylindrical necks. One vessel has a spherical design (Figure 82:10) and is dated 1575-1625 (Gawronski 2012, 178, cat. 360, 318), while the heavily-profiled body of another (Figure 82:11) recalls some of the Westerwald-type vessels described below.



Figure 82 Rhenish stoneware. 1-11: jugs.

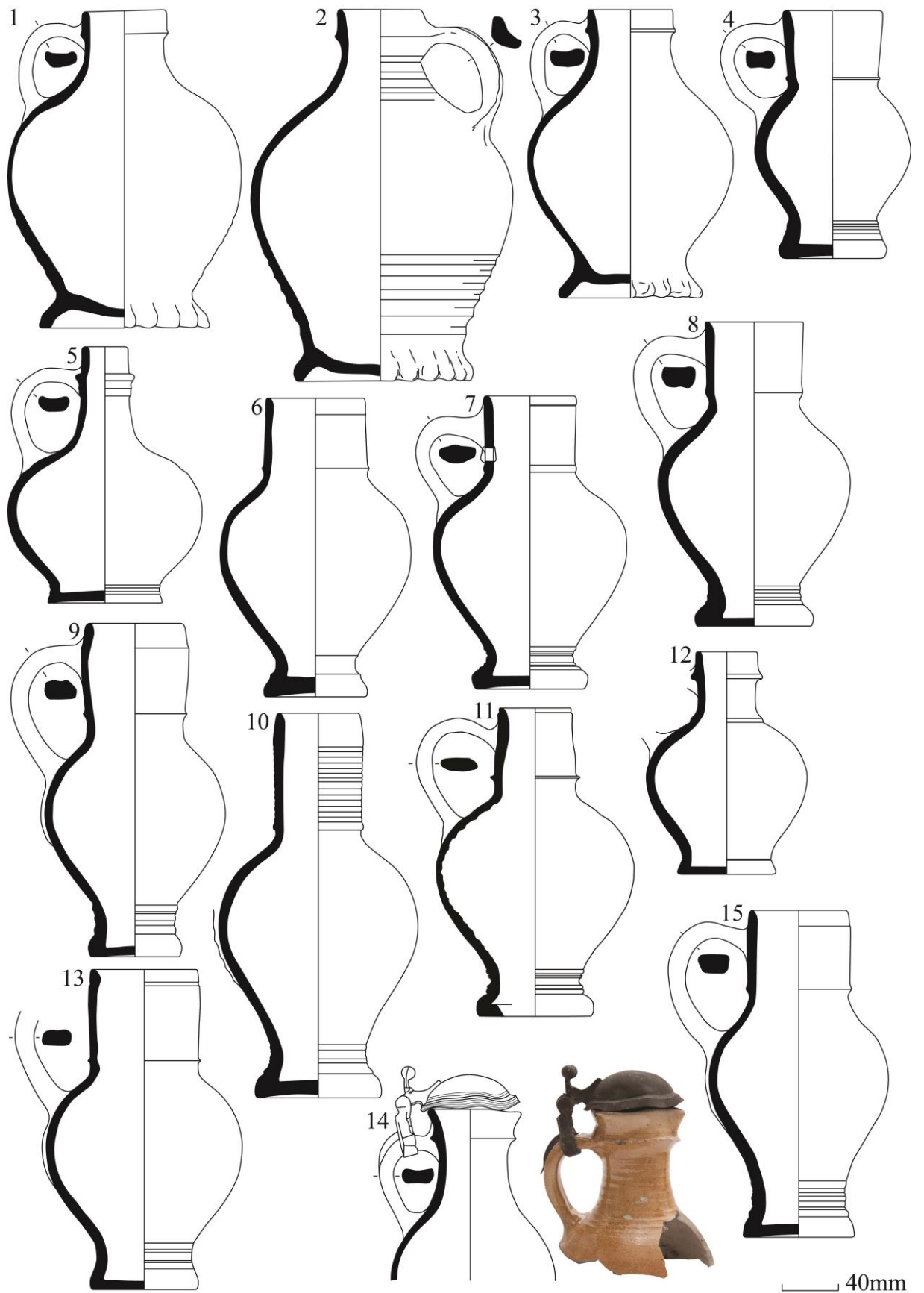


Figure 83 Rhenish stoneware. 1-15: jugs.

Next to these decorated wares, there is a whole range of vessels representing a more modest production, also often associated with Raeren or its surrounding hamlets. Those with a footring (Figure 83:1-3) are typical of the first half of the 16th century, while others (Figure 83:4-15) resemble the medallion jugs of the later 16th century. Remarkable is that the pewter lid is still preserved with one of these vessels (Figure 83:14). While the jugs described above are used in serving and drinking liquids, a set of smaller vessels should be identified as oil jugs (Figure 84:1-4). They are generally dated to the 16th century (Hurst, Neal and van Beuningen 1986, 198). Two final vessels that are possibly of a Raeren provenance are somewhat special. A first is a miniature tripartite drinking jug (Figure 84:5), consisting of three mutually-connected jugs, serving as communicating vessels. These finds have their origin in the 15th and early 16th century, and probably make reference to the Holy Trinity (Mennicken 2013, 113-114). A second fragment is shaped in the form of an animal's backside (horse?)(Figure 84:6). An aquamanile is the most likely identification. The faceted design of the legs can also be seen on other 16th- and 17th-century Raeren products. However, this attribution is provisional, as the dark colour of the engobe would rather be typical of Cologne (pers. comm. Ralph Mennicken). Parallels are so far undocumented.

Some miscellaneous forms are a spindle whorl of a globular type (Figure 84:7), dated to the 16th century (Hurst, Neal and van Beuningen 1986, 206) and a (mustard?) pot (Figure 84:8). Several spouted jars, used for skimming cream of milk, were also identified (Figure 84:9-12). They are consistently based on a footring. Remarkably, these were only recovered from assemblage [03/MIKA/45], possibly indicating that this part of the castle functioned in dairy processing. Finally, a series of large vessels should be identified as storage jars. One jar is decorated with incisions and rouletting (Figure 84:13), while another one has a cobalt-blue spot on the shoulder (Figure 85:1). The application of blue as a decorative pattern finds its origin in the late 16th century and reached its peak in Westerwald-type productions.

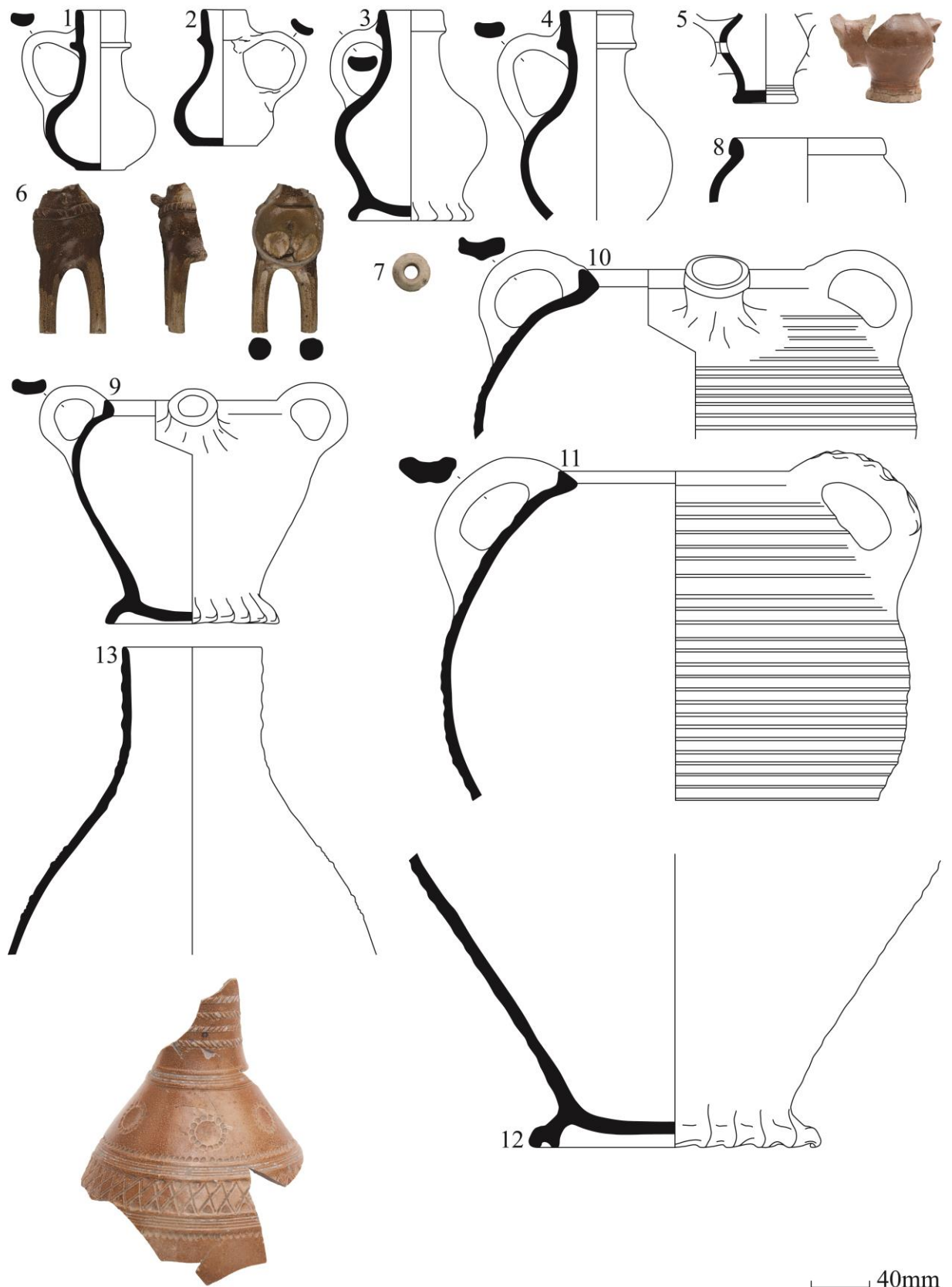


Figure 84 Rhenish stoneware. 1-4: oil jugs, 5: miniature tripartite jug, 6: aquamanile, 7: spindle whorl, 8: (mustard?) pot, 9-12: spouted jars, 13: storage jar.



Figure 85 Rhenish stoneware. 1: storage jar, 2-6: jugs, 7: chamber pot. 2, 4 and 5 not to scale.

Westerwald-type finds are relatively scarce at Middelburg's castle, possibly flowing from the increasing popularity of drinking glasses in the 17th century. The lack of cobalt-blue decorations in the castle's garderobe chutes, indicates that this tradition only

appeared in Middelburg somewhere after the turn of the 16th and 17th century, and not immediately following its development in the 1580s (Hurst, Neal and van Beuningen 1986, 224). One of the oldest finds with cobalt-blue decoration is a panel jug in the Raeren tradition, depicting a war scene (Figure 85:2). It is thus unclear whether it concerns a late Raeren or early Westerwald production. For the first half of the 17th century, one small jug is completely preserved (Figure 85:3). It is dated 1630 and depicts the escutcheon of Amsterdam and a crucified Jesus, flanked by two female figurines. Finds of the second half of the 17th century are generally characterised by floral and geometrical relief ornaments on a cobalt-blue background (Figure 85:4-5)(Klinge 1996, 45-46; Vos 2012, 118, fig. 7.9). One vessel stands out by its stamped floral motives (Figure 85:6).

Westerwald productions were not restricted to jugs. One chamber pot (Figure 85:7) depicts a medallion of an (imaginary?) escutcheon with lion supporters, a motive developed through the 17th century (Hurst, Neal and van Beuningen 1986, 183). Parallels are dated between 1625 and 1675 (Hurst, Neal and van Beuningen 1986, 224, fig. 108.339; Gawronski 2012, 214, cat. 571, 215, cat. 572, 321). A final fragment is part of a bottle (not depicted). German mineral water was only imported into the Low Countries from c. 1640 onward (Bitter 2004, 22), This *terminus post quem* is in line with several archaeological assemblages, such as a ship possibly wrecked in the 1660s (Vos 2012, 193, 210, fig. 11.15) or the *De Drye Mooren* inn (1661-1663)(Hupperetz 1994, 5-6).

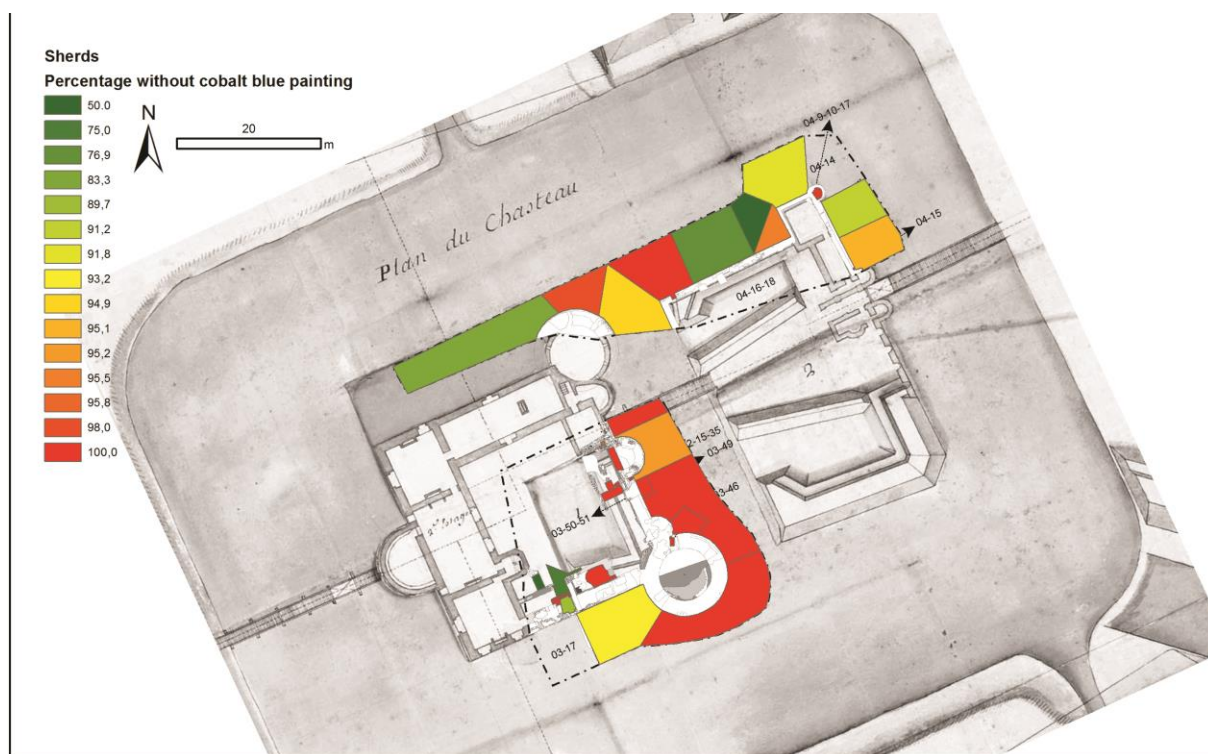


Figure 86 Percentage of stoneware sherds without cobalt-blue decoration in Westerwald tradition.

Westerwald-type ceramics are clustered in particular parts of the castle's moat (Figure 86). For the upper court, no finds were made in the southeastern corner. This observation can probably be explained by the earthworks that were erected here in the early 17th century. Only the zone adjacent to the bridge was still used to discard broken pottery. On the lower court, only the garderobe chutes lack in this find category. As already stated above, both observations show that Westerwald-type goods were probably only consumed at Middelburg's castle after the early 17th century.

4.3.4.8 Werra

In the moat's assemblage 59 sherds and 25 individuals (22 plates and 3 bowls/porringers) were found. Some of these vessels are depicted here (Figure 87). A first plate (Figure 87:1) is decorated with a pillow, symbolising the seventh day of creation on which God rested. It is also often seen as part of a wedding gift (Bruijn, Janssen and Hoffman-Klerkx 1992, 101). A second plate (Figure 87:2) displays a decorative band on the rim. It seems as if a '10' is written across the concentric circles on this rim. If so, the vessel should be dated 1610 and is possibly of an Enkhuizer provenance, as the application of dates over these zones of concentric circles is almost exclusively found with these Dutch productions (Ostkamp and Venhuis 2009, 43). On the well, the hind legs of an animal are preserved. Comparison with an Enkhuizer parallel suggests that a hare is depicted, signifying the hope of salvation (Bruijn, Janssen and Hoffman-Klerkx 1992, 252, fig. 169). Other plates also have a faunal theme, with decorations of a bird (part of a wing, Figure 87:3) or a sheep? (Figure 87:6). The best preserved vessel is dated 1613 and displays a man with moustache and feathered hat (Figure 87:4). A parallel for the decorative band on the rim was attested in Enkhuizen (Bruijn, Janssen and Hoffman-Klerkx 1992, 60, fig. 34:3). Although it does not necessarily place the provenance of this piece in this town, it confirms the use of this decorative pattern in the early 17th century. A final vessel (Figure 87:5) depicts acorns, as a symbol of fertility (Bruijn, Janssen and Hoffman-Klerkx 1992, 95).

It is remarkable that most of these Werra finds are situated on the lower court. During the 2002 campaign, only 3 sherds of Werra ceramics were recovered, in the assemblage [03/MIKA/45] a mere 2 fragments. This near absence of Werra ceramics on the upper court supports the idea that this part of the castle was heavily destroyed during the troubles of the late 16th and early 17th centuries, an observation previously put forward for the Portuguese ceramics (see '4.3.4.6.3 Portuguese pottery') and the Weser ceramics below (see '4.3.4.9 Weser'). Moreover, Werra ceramics were not present in any of the garderobe chutes, possibly suggesting that these goods were not consumed prior to the early 17th century. This hypothesis could be confirmed by the fact that the only two dated pieces (Figure 87:2, 4) point to the 1610s. It would signify a difference with the

Netherlands, where the popularity of this ware type is situated in the last decade of the 16th century.



Figure 87 Werra pottery. 1-4: plates, 5-6: porringers/bowls.

4.3.4.9 Weser

In total, 62 sherds were found, representing 19 individuals (9 plates, 2 jugs, 5 porringers, 3 cups). Figure 88 shows the attested form diversity and characteristic Weser decorations, consisting of dots and wavy bands in alternating red and green.

Only 3 fragments were found on the upper court, during the 2002 campaign. All the other fragments were recovered from the lower court. The 2003 campaign remained remarkably free of Weser finds. Again, it shows that activity at Middelburg's castle at the turn of the century was mainly to be situated on the lower court. As with Werra ware, no fragments were present in any of the garderobe chutes, possibly indicating that Weser ceramics were only in vogue from the early 17th century onward.



Figure 88 Weser pottery. 1-2: porringers, 3: jug, 4: cup, 5-6: plates.

4.3.4.10 Chinese porcelain

The ceramic assemblage at Middelburg's castle brought to light one individual of Chinese kraak porcelain, divided over six fragments. It concerns a *klapmuts* (pers. comm. Jordi Bruggeman), found on the upper court (Figure 89). *Klapmutsen* should be seen as something in between deep dishes and shallow bowls. They are considered as one of the most typical, but most un-Chinese shapes, with its design possibly determined by the shape of European spoons. Its name, however, is derived from Dutch woollen caps (Rinaldi 1989, 118). The vessel is characterised by a foliated rim and angled footring, covered with sand particles. This sand attached to the footring derives from the sand that was *sprinkled on the bottom of the saggars*. This practice prevented the vessels from touching and sticking to these saggars, which had a higher temperature (Rinaldi 1989, 53). Moreover, underglaze cobalt-blue decorations cover both the in- and outside of the vessel. The rim displays alternating larger and narrower panels with auspicious symbols. The well is also decorated, but the pattern could not be determined because of the fragmentary state.

Given the production period of kraak porcelain (see '3.9.9 Porcelain'), a cautious dating for this vessel is placed in the first half of the 17th century. The assemblage in which it was found, [03/MIKA/13], allows to narrow this dating somewhat further, as it concerns the retaining wall for the bastion that was erected in the beginning of the 17th century. Although the exact date for these works on the upper court remains a matter of debate, it must be placed within the first two decades of the 1600s.

How should the presence of one porcelain vessel at Middelburg's castle be interpreted? The VOC (*Vereenigde Oostindische Compagnie*) imported 3 million pieces of porcelain by 1645 (Jörg 2003, 6). That only one piece made it to Middelburg, seems rather little. Unfortunately, research on early porcelain in the Southern Netherlands is still in its infancy. The presence of porcelain in literary and iconographical sources has been attested since the middle of the 16th century. However, archaeological finds of this early period remain forthcoming. It is only from the later 16th century onward that porcelain starts to appear in large trading towns and elite residences (Bruggeman 2010). Bruggeman (2010, 32) mentions that considerable numbers of Asiatic porcelain are to be found in depots across Flanders. Although yet to be quantified, it seems to me that these numbers hardly compare to the amount of porcelain present in the Northern Netherlands. Is the one individual at Middelburg's castle evident of disrupted trade networks following the religious troubles, or does it merely reflect the loss of status of the castle's occupants?

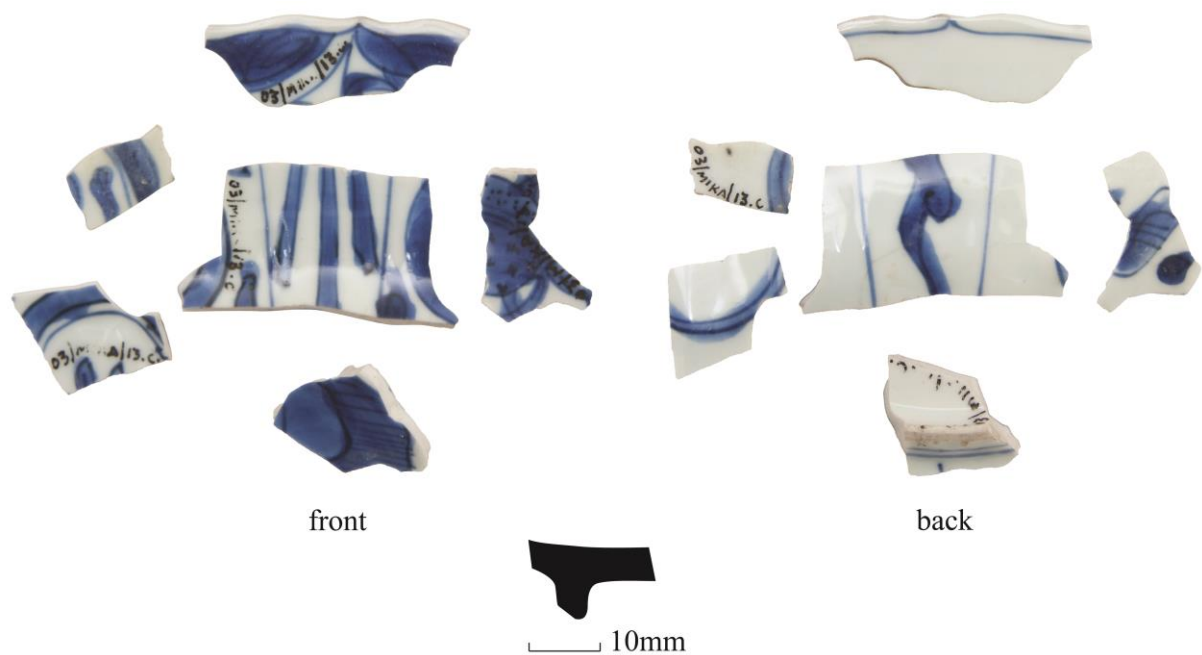


Figure 89 Chinese kraak porcelain *klapmuts*.

4.3.5 Relation to other material categories

The following paragraphs will relate the ceramics above to some of the other material categories recovered at Middelburg's castle. It will allow to add information on the dating of these ceramics, the social groups which consumed them and their demographic composition, and the functional characterisation of the castle.

4.3.5.1 Leather

A first category that will be considered is leather. The discussion is based on the study by Camerlynck and Moens (2016). In total, 4760 fragments of leather were recovered. Their distribution is plotted on Figure 90. Compared to the spread of pottery on the site (Figure 43), this distribution is relatively similar, with high concentrations of finds near the upper court's northern tower and the eastern lower court. However, on a more detailed level, some interesting observations can be made. With 1148 fragments, most leather can be found in assemblage [04/MIKA/12]. As such, it makes up 26% of the ceramics recovered from this unit (4392 sherds). A similar percentage was attested for assemblage [04/MIKA/5], with 590 leather fragments for 2261 sherds. Remarkable is that for the adjacent assemblage [04/MIKA/6] 234 leather fragments were recovered, or 975% of a total of 24 sherds. The reasons behind this discrepancy are not immediately clear. Furthermore, no leather fragments were registered for assemblage [04/MIKA/7], whereas over 2300 ceramic sherds were present in this unit. The distribution map below (Figure 90) seems to suggest that far more leather fragments were found on the upper than lower court, with exception of the area surrounding the upper court's northern tower. However, this must be somewhat mitigated, as c. 400 fragments of the 2003 campaign could not be assigned to a specific assemblage, and are thus not shown on the map. Taken these latter fragments into account, 2275 leather finds are present on the upper court, compared to 2485 for the lower court.

Also the chronological range of the leather finds is relatively similar to that of ceramics, with the largest body of fragments dating to the 16th and early 17th century. Later finds are less well represented, although occupation in the later 17th and early 18th century clearly speaks from the other material categories. However, this difference is largely due to the current state of research, in which 17th-century finds are hard to identify (pers. comm. Jan Moens).

A more detailed look into these leather finds allows an insight into the demographic composition of the castle's occupants. Based on shoe sizes, shoes could be attributed to men, women or children. For the upper court, this distribution was respectively 54%, 12% and 34%. For the lower court, these numbers are respectively 46%, 16% and 38%. Although the differences between upper and lower court are not really significant, this data

indicates that there was a considerable number of women, but certainly children, living at the castle.

Finally, also the military presence at Middelburg's castle is evidenced by the leather fragments. A part of a sword holder is undoubtedly the most illustrative find. However, also a fire bucket would have come in handy during the troublesome times of the late 16th-early 17th century. This military presence does not only comprise of soldiers. Many leather fragments indicate that a cobbler was also active at the castle. The find of a cobbler's knife in upper court assemblage [03/MIKA/24] dates this activity to the late 16th and early 17th century, as it was subsequently covered by the earthworks on this part of the castle.

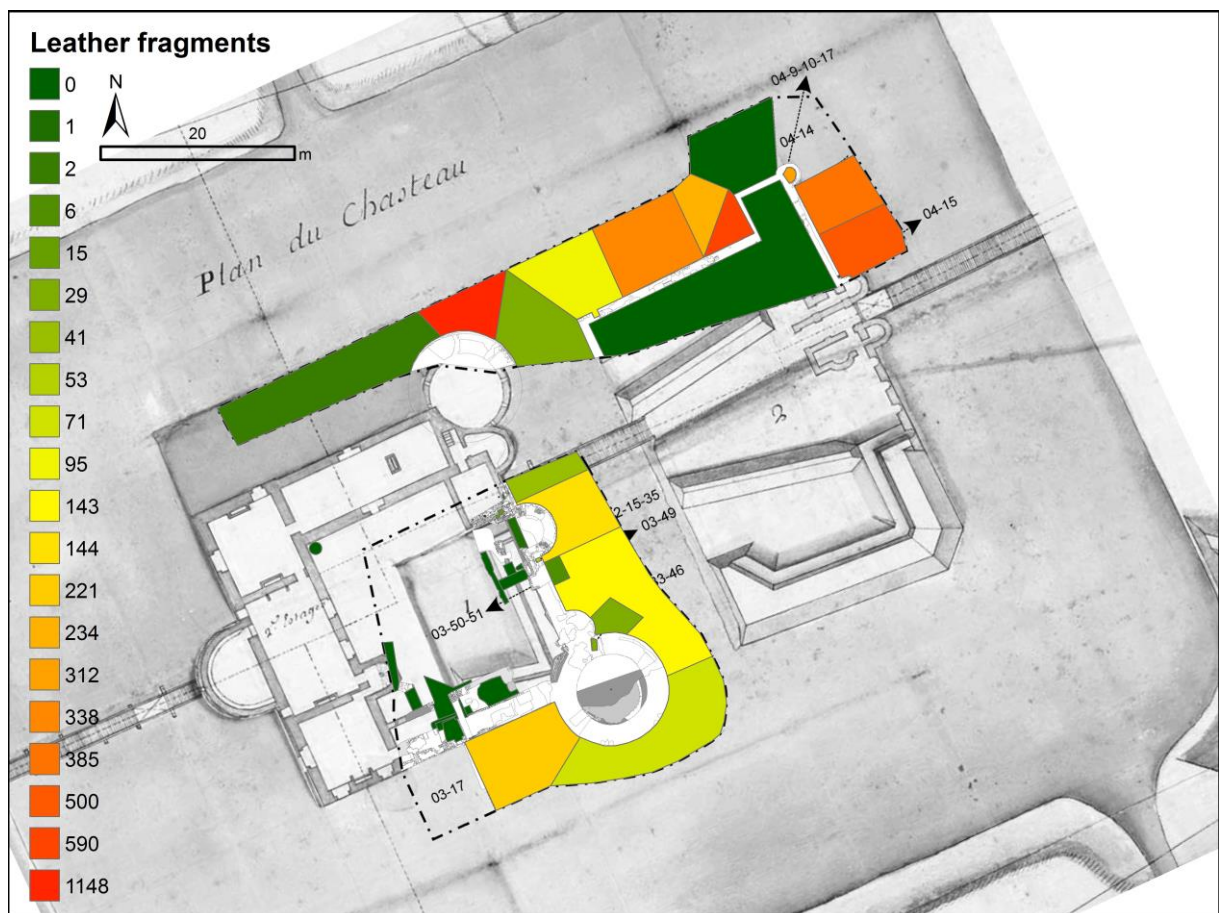


Figure 90 Distribution of leather fragments at Middelburg's castle (data Camerlynck and Moens, map by author).

4.3.5.2 Clay pipes

A study of Middelburg's clay pipes was made by van Oostveen (2015). In total, 410 fragments were counted, representing a minimum number of 82 pipes (van Oostveen 2015, 10). The distribution of these clay pipes at the site is comparable to that of the ceramics, with the greatest concentrations situated to the east of the lower court, adjacent to the upper court's northern tower, to the south of the bridge and to the west of the upper court's southern tower (Figure 91).

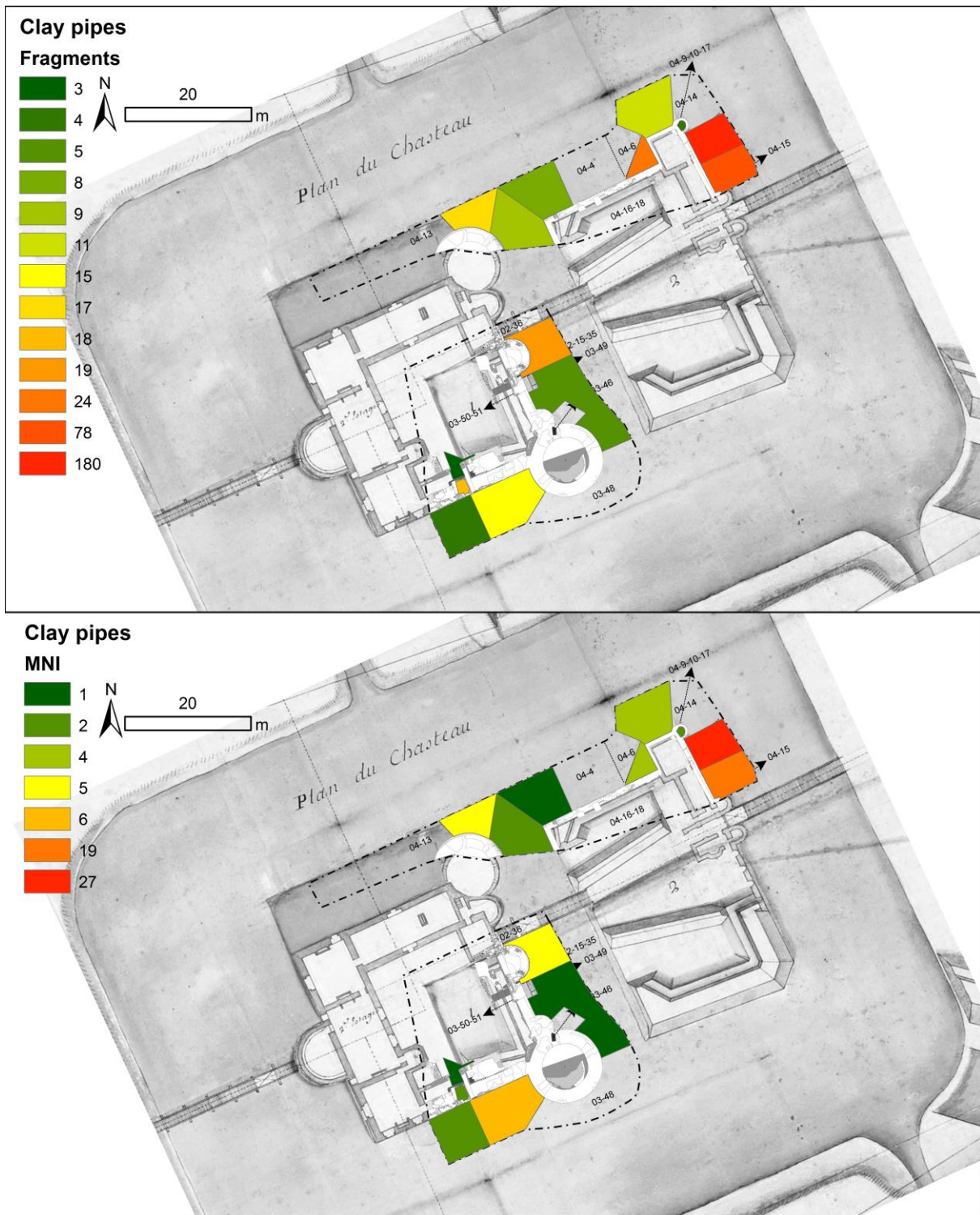


Figure 91 Distribution of clay pipes at Middelburg's castle.

There would seem to be a certain chronological differentiation between these different zones, with pipes from the 2002 campaign dating between 1630 and 1710, pipes from the 2003 campaign mainly produced around 1660 and, finally, pipes of the 2004 campaign to be situated from the first quarter of the 17th to the first quarter of the 18th century (van Oostveen 2015, 10). Particularly striking, is that two fragments from assemblage [04/MIKA/11] can be dated before 1625 (van Oostveen 2015, 11). van Oostveen (2015, 14)

suggests a possible link to the military consumption of tobacco, as the practice was not yet very widespread at the time and introduced into our regions by English soldiers. The idea of a military consumption of tobacco is furthered by the presence of Jonas pipes, hence called because it is interpreted as a reference to the Book of Jonah, in which he is swallowed by a whale. This particular type is generally associated with seamen. If this is indeed the case, it would testify to the maritime sphere of influence at Middelburg. However, van Oostveen (2015, 14) notes that these Jonas pipes are increasingly found in military assemblages. Such a link between soldiers and this type of clay pipe might thus also explain their presence at the castle. In the latter case, it is yet unclear (to me) why soldiers would have preferred a Jonas pipe over another one.

The distinction between products of a fine quality, and those with a coarser finishing may give some further insights into the consumers (Figure 92). At the upper court, clay pipes of a fine quality seem to be better represented. Although low in numbers, a certain element of status could explain this patterning. For pipes dating to the first quarter of the 18th century, coarse products are much more prevalent than what would normally be expected (van Oostveen 2015, 12). This observation is in line with the ruinous state of the castle and the presence of soldiers during that time period (see '4.1 Middelburg-in-Flanders: location and history').

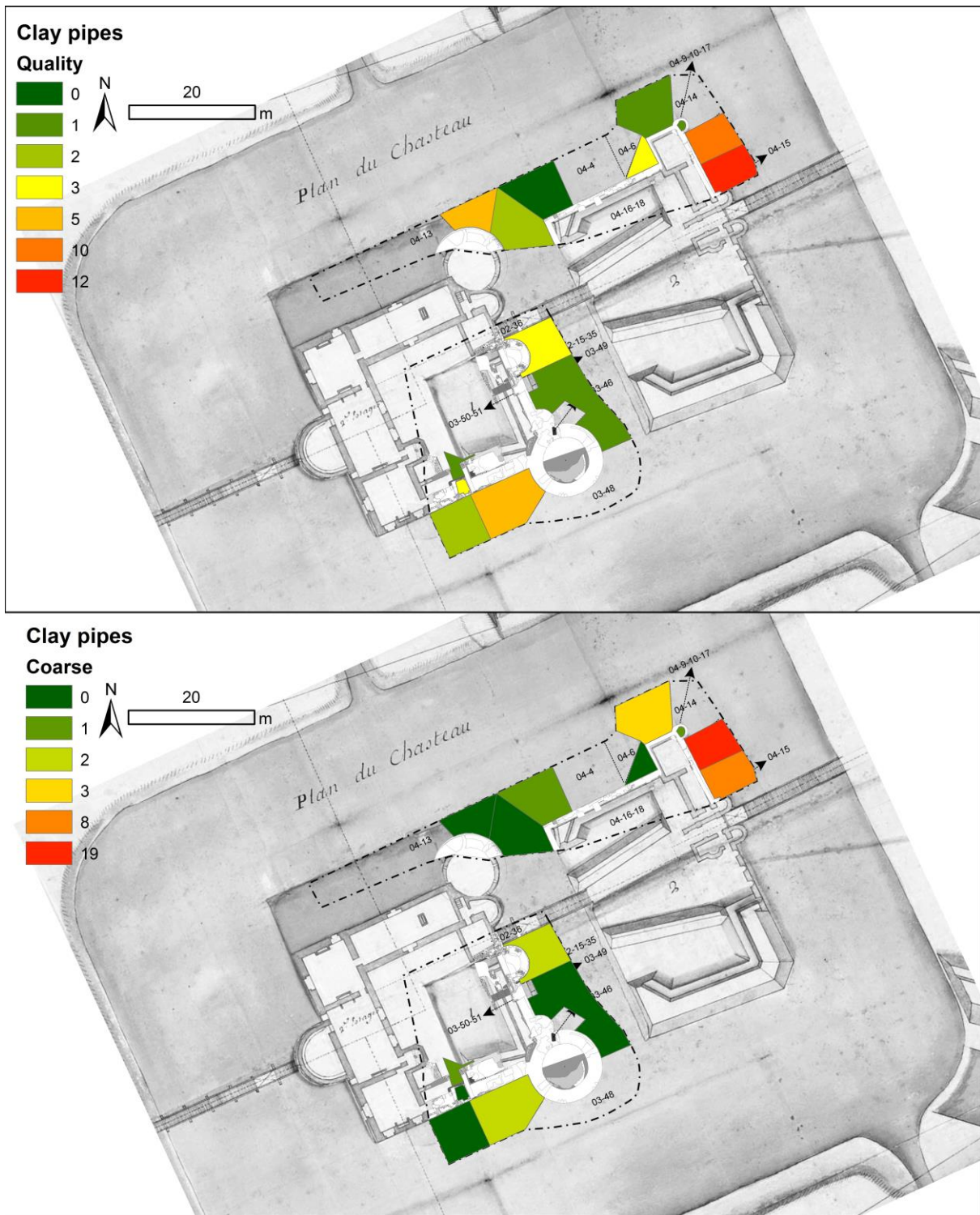


Figure 92 Distribution of fine (top) and coarse quality (below) clay pipes at Middelburg's castle.

The study of clay pipes finally sheds some light on issues concerning the provenance and dating of ceramics. Several pipes, dated to 1650-1680 and originating from Gouda, are produced according to a Zeeland model, specifically made for that region (van Oostveen 2015, 11). As was already suggested for the Jonas pipes above, it shows that Middelburg is situated in a maritime sphere of influence. For 16th-century ceramics, this coastal

influence was already clear, for example in the use of cooking pots with thumbled feet or from the several parallels found in the nearby Bruges. Although these regional features fade out during the 17th century, with supra-regional production centres as Gouda or Oosterhout, it possibly shows that the import of ceramics ran through Zeeland, and that this coastal region continued to share a certain material culture.

Concerning the date of pottery, no clay pipes were found dating after 1725 (van Oostveen 2015, 14). For some of the ceramic finds of which the date range stretched to the first half of the 18th century, 1725 can thus also be taken as a chronological limit.

4.3.5.3 Coins, tokens and coin weights

For the analysis of 44 coins, 58 tokens and 8 coin weights, the upper and lower chronological limit of every find (as identified by Frans De Buyser and Luk Beeckmans) was listed. Outliers, such as a coin dated 1388-1402 in assemblage [04/MIKA/1], and undatable items were subsequently removed, leaving us with a selection of 89 finds. Following this procedure, the minimum and maximum values for the upper court range between 1465 and 1710. The oldest find on the lower court is of a slightly more recent date, from 1480 onward, and so is the youngest one, dated until 1715. These dates confirm the image resulting from the analysis of the ceramics and clay pipes and are in line with the historical narrative.

The upper court as the monetary heart of the castle can be deduced from the number of finds. With 61 objects, the upper court counts more than double of the items retrieved from the lower court (28). For the upper court, assemblages [02/MIKA/38] and [03/MIKA/44] are both particularly rich in finds, each counting 17. The many finds in the latter assemblage are surprising, given that only few ceramics were recovered from this unit. Some sort of financial activity could thus possibly be suspected near the upper court's eastern boundary wall. For the lower court, it is garderobe chute [04/MIKA/1/2] which counts most of the finds, 8 in total. Contrary to the abundance of other material categories in [04/MIKA/8] and [04/MIKA/11], both contain but two finds. It once again illustrates that coins, tokens and coin weights followed a different deposition process.

If the loss of coins, tokens and coin weights reflects financial activity, the 16th century seems to be the Golden Age of Middelburg's castle, as most of the finds date to this period.

4.3.5.4 Metal military objects

Recent MA research has focused on Middelburg's metal military objects (Scheerlinck 2016). A large part of the recovered weapon parts, accessories and lead shot would date to the Eighty Years' War. For the lead shot, up to 80% could even be related to the period of this conflict. The French-Dutch occupation at the castle (1684, 1689-1697) and the War of the Spanish Succession (1701-1713) are also represented in the finds, but only to a lesser degree (Scheerlinck 2016, 158, 159). This pattern resembles that of the ceramics, with the

majority of vessels dating from the second half of the 16th to the first half of the 17th century. However, that soldiers were also present at the castle in more recent periods, might plead in favour of a military interpretation of certain late 17th- to early 18th-century ceramic forms, e.g. the tin-glazed plates representing prince/king William of Orange. Their use may well have functioned within the social discourse of the Dutch soldiers at the castle.

These weapon parts and accessories do not only testify to the presence of Dutch troops in Middelburg. Objects were also found to be made in England, Portugal, and Spain or Italy, although the fact that they were produced in these regions does not necessarily entail that those nationalities were actually accommodated at the castle (Scheerlinck 2016, 153). Different processes can account for a change in ownership of the weapons, from trade to looting.

The presence of these metal objects in the moat, despite their high recyclable value, might be explained by the occupation at the castle of both sides of the conflict. The deliberate destruction and discard of material culture has already been suggested on several occasions above, and can also be the case for the military finds considered here. A fitting of a triangular powder flask, depicting a Spanish soldier dressed according to the fashion of the second half of the 16th century, might be illustrative of this process. Particularly the fact that the gold leaf, originally covering the object, was no longer present, suggests that this gold finishing was recuperated by a Dutch soldier, prior to the discard of the fitting in the moat (Scheerlinck 2016, 179). Deliberate destruction was thus only partial in this case.

The study of metal military objects furthermore allowed to distinguish certain functional zones within the castle. For example, indications for the production of lead shot are concentrated around the upper court's southern tower. The presence of a ceramic melting pot at the lower court might add a second location for the melting of lead and the casting of lead shot (Scheerlinck 2016, 185, 312, fig. 232-233). Moreover, a medical post at the upper court could also speak from the metal finds, confirming the presence of a doctor, surgeon or pharmacist, suggested earlier on the basis of the many ointment jars in the garderobe chutes (Scheerlinck 2016, 186-187, 314, fig. 236). Finally, the many finds of metal cooking- and tableware, especially in assemblages [03/MIKA/45] and [03/MIKA/48] would also situate a kitchen/dining room at that upper court (Scheerlinck 2016, 190). This observation complements the ceramic distribution of probable functions made below (Figure 94), with a concentration of vessels related to tableware, kitchen and storage in this zone.

4.3.6 Interpretation

4.3.6.1 Typochronological analysis

Moats are generally not appreciated for their typochronological qualities. Although several new pottery types were attested for Middelburg, dating was always based on comparisons with other assemblages and not intrinsic within the moat itself. However, one assemblage ([03/MIKA/47]) does carry typochronological potential as it was found in the rubble of the upper court's southern tower and covered by the earthworks that were subsequently erected in that zone. Historical sources hence date this concentration of finds between the late 16th and early 17th century. A *terminus ante quem* should be sought between 1601 and 1607, a period for which the acts of war have been documented by Pompeo Giustiniano. In his report, he mentions that count Frederik van (den) Bergh fortified the city of Middelburg and its castle (Martens 2006, 300). This dating is confirmed by the material itself, in particular by a pewter plate bearing the arms and initials (MvP) of Maximilian van Praet, lord of Moerkerke (Figure 93:9). This plate possibly came along with its owner, or rather with plundering soldiers (De Clercq, Pype and Mortier 2004, 290). As van Praet acquired the castle of Moerkerke after the death of its previous owner in 1577 and already sold it in 1586,² it was certainly in use between these two dates, possibly continuing to be in circulation until the early 17th century.

The other finds in this assemblage are ceramics. Some of these have already been discussed above, but are grouped together here because of their typochronological importance. Two pots show the same profile, with an outstanding rim and flat base (Figure 93:1-2). They are furthermore unglazed and have one vertical loop handle. The dimensions of both pots are also similar. Rim diameters range between 15 and 17cm, with a height of 12cm and base diameters of 8.2 and 8.5cm. This results in a width/height ratio of 1:0.7-0.8. The presence of food residues with one of the individuals (see '4.5 Dietary practices') allowed an identification as cooking pots. One other cooking pot has a flattened top and is likely of the double-handled type (Figure 93:3). The only plate in this assemblage seems to be of a rather deep type and is internally covered in a copper-green lead glaze (Figure 93:4). A final redware vessel remained undetermined. Its curvaceous body is fully covered with a colourless lead glaze (Figure 93:5).

The two stoneware fragments in this assemblage are externally characterised by a brown engobe (Figure 93:6-7). They are both part of a jug, although it certainly does not concern the same vessel, since the base fragment has a salt glaze on the interior, while the rim fragment lacks in this finishing. A final sherd is part of a maiolica plate

² http://www.heerlijkheidvanmoerkerke.be/index_files/Page815.htm

(Figure 93:8). Its colour pattern and frieze of S-scrolls are diagnostic for the time period to which the assemblage is dated.

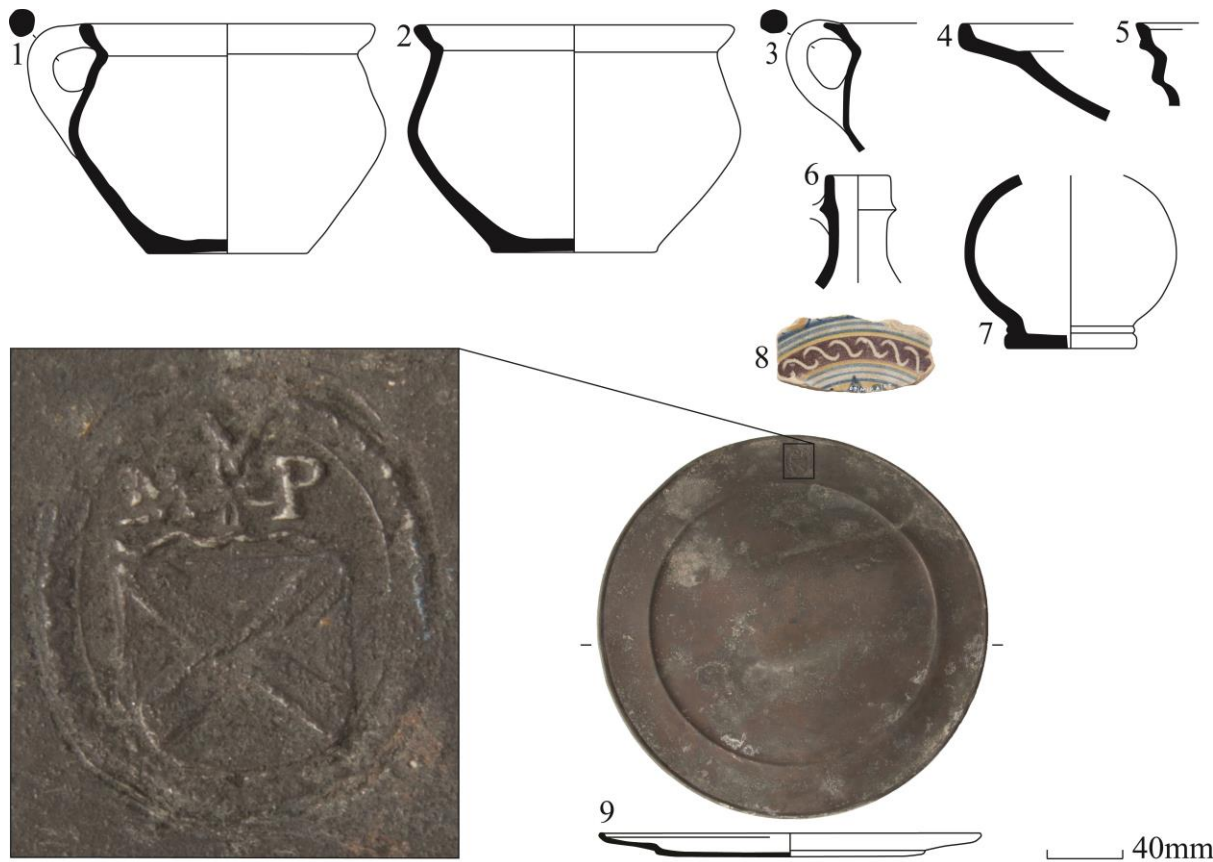


Figure 93 Assemblage [03/MIKA/47]. Redware pottery. 1-3: cooking pots, 4: plate, 5: unknown. Rhenish stoneware. 6-7: jugs. Low Countries maiolica. 8: plate. Pewter. 9: plate of Maximilian van Praet.

4.3.6.2 Spatio-functional analysis

Although the occurrence of crossfits showed that there is no simple one-to-one relation between the position of an object in the moat and the function of the adjacent area in the castle (see '4.3.3 Crossfits'), the grouping of vessels according to their probable functions did allow to discern certain functional zones (Figure 94).

Of the excavated units, most vessels related to food preparation (e.g. cooking pots, lids and skillets) can procentually be found in the moat surrounding the lower court. The functional character of this space was already suggested on the basis of the many greyware sherds, and now seems to be confirmed. By contrast, the distribution of forms related to kitchen and stock (mainly jugs, large carinated bowls and storage jars) is mainly situated around the upper court. Tableware (largely determined by plates and porringers) shows a two-sided image, with a concentration near the lower court's rectangular expansion (possibly linked to the presence of a reception room), and to the south of the upper court's southern tower. For forms related to hygiene, the image is largely disturbed by the low number of vessels in assemblages [04/MIKA/6] and [04/MIKA/13], resulting in

high percentages for this particular category. Pottery associated with hygiene, particularly ointment jars, remain best represented within the upper court garderobe chutes.

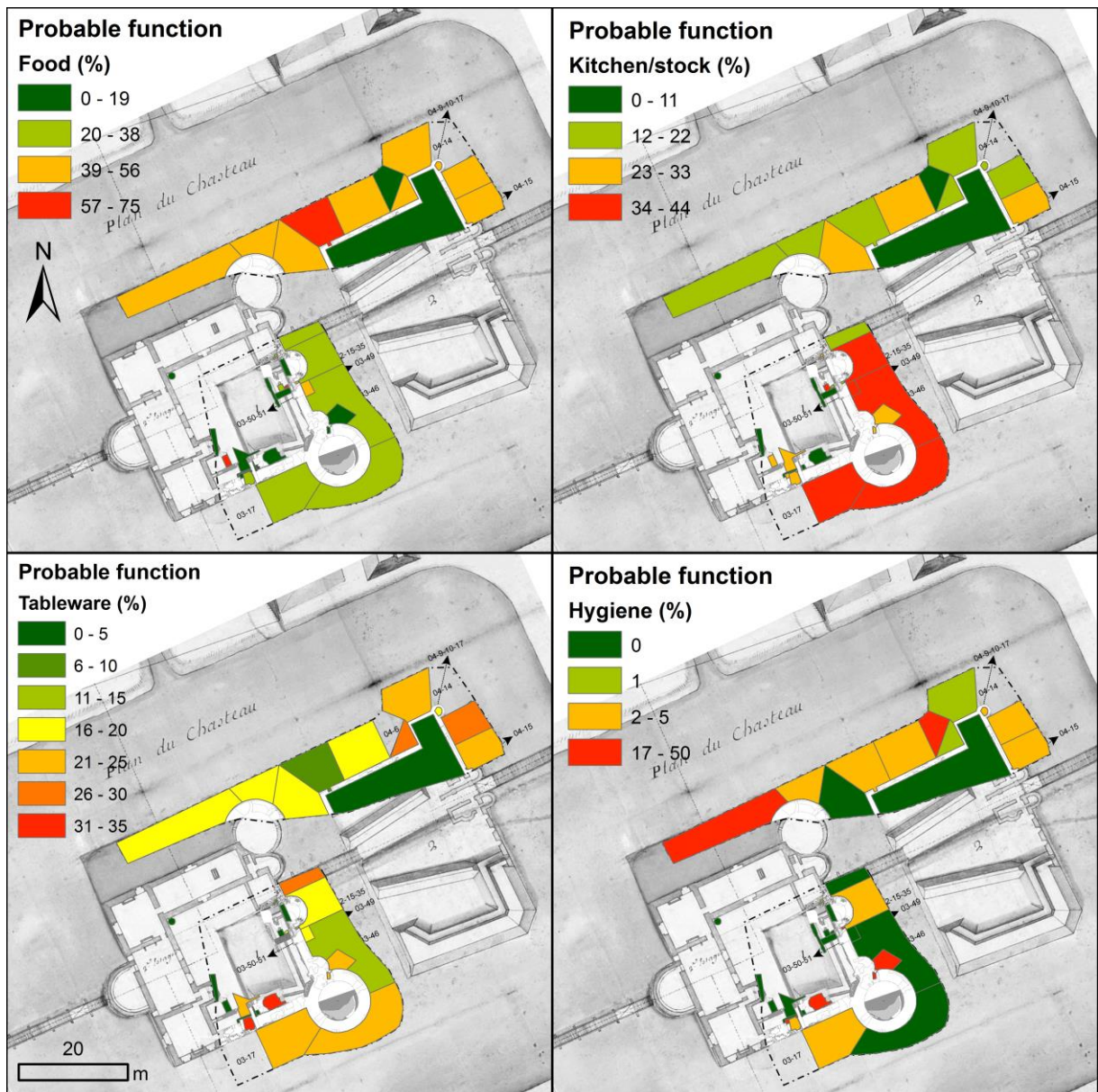


Figure 94 Distribution of probable functions at Middelburg's castle (100% values were excluded for the food and kitchen/stock categories; for tableware, the 50% value of [04/MIKA/6] was not taken into account).

If we look closer to four of the forms that make up the above functional zones (Figure 95), some further observations can be made. Within the vessels related to food preparation, the frying pan shows a different distribution pattern, with the highest percentages to be found in the southern upper court. Does this reflect a difference in food consumption, with a higher share of fried food (e.g. meat) at the upper court? The skillet also shows a distinctive clustering around the rectangular expansion of the lower court. With the high percentages of tableware in mind for this zone, the presence of skillets

could possibly be explained by their secondary function as an eating utensil. The distribution of large carinated bowls also deserves some additional comments, mainly being concentrated to the south of the upper court. This patterning adds another argument to the hypothesis of dairy processing in this zone, already suggested above on the basis of stoneware spouted jars in assemblage [03/MIKA/45] (see '4.3.4.7 Stoneware').

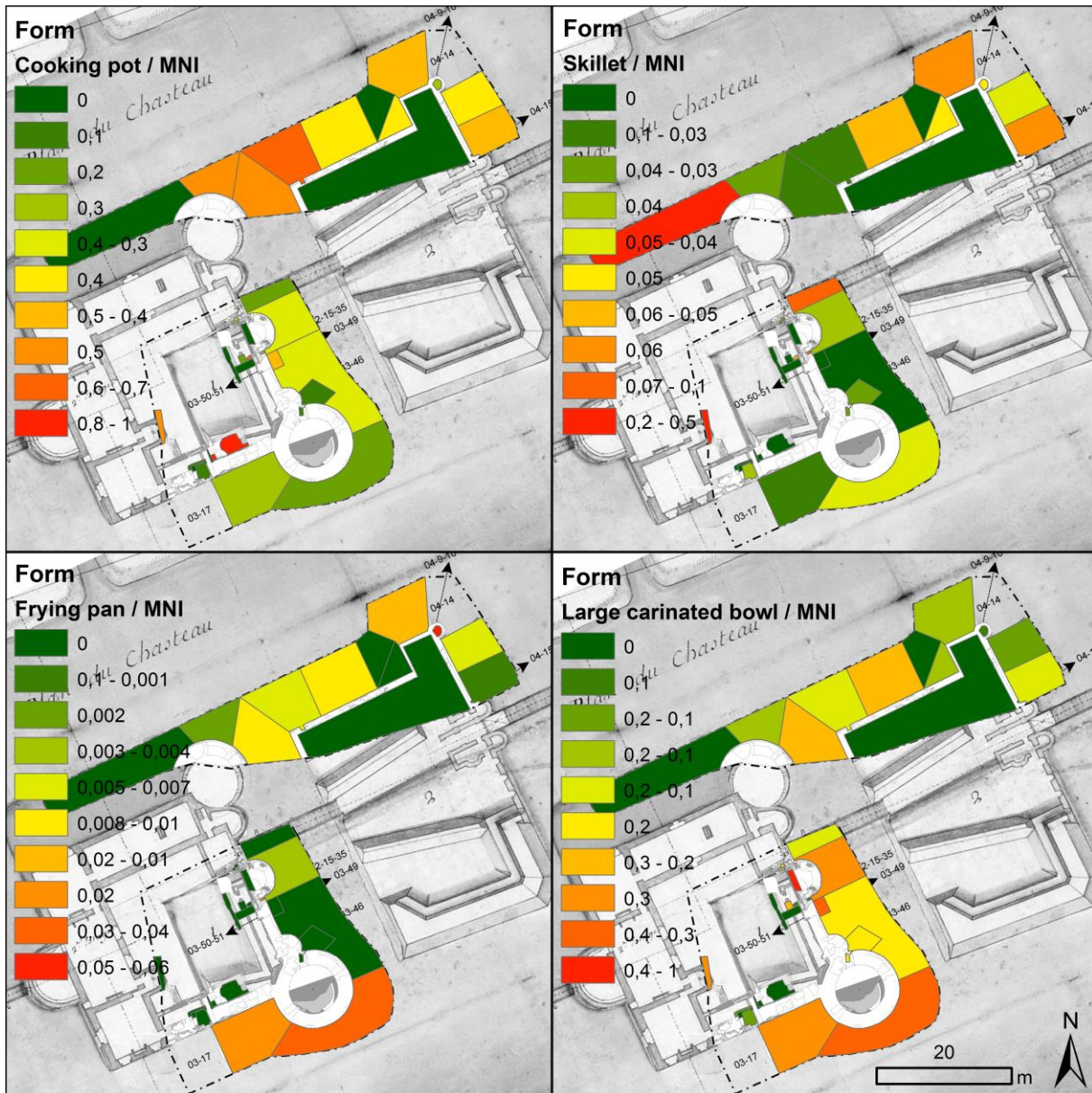


Figure 95 Distribution of cooking pots, skillets, frying pans and large carinated bowls at Middelburg's castle (in quantiles, normalised by the MNI).

4.3.7 Discussion

Rather than summarising the chapters above, this discussion will focus of the potential of a moat assemblage in answering behavioural questions. Although these features are often esteemed to be only of secondary value, I will argue that it is possible to come to a

better understanding of the castle site, its occupants, the trade and social networks to which they had access and the particular political and economic history of Flanders, through the study of the material recovered from the moat. If the chronological and spatial information of objects is coupled to historical events or periods (as illustrated by Figure 96 and Figure 97), certain trends indeed become visible.

Since Middelburg's early days, material culture has played an active role in identity building. The display of a Valencian lustreware dish by Pieter Bladelin, in combination with a tiled floor bearing his initials (De Clercq *et al.* 2015) and stove tiles with the emblems of Louis of Gruuthuse (De Langhe *et al.* 2015, 295), confronted the castle's visitor once more to his connectedness amongst European courts. This practice of conspicuous consumption continued under subsequent owners, as is shown by a set of stove tiles likely gifted by Mary of Burgundy to the Hugonet family (De Langhe *et al.* 2015, 295), but also by the Italian maiolica plate and Spanish *escudilla* dating to the reign of Guillaume II Hugonet. The latter find is a nice example of the multiple and changing meanings of ceramics, from a common household good in Sevilla to an item functioning in an elite context in Flanders. Although ceramics are cheap commodities, several other forms seem to be related to high-status practices, hence providing information on the wealth of the castle's occupants. For example, a stoneware drinking cup can be associated with the consumption of wine, and also a small redware colander only has parallels in well-to-do assemblages. It should furthermore be noticed that a deliberate choice was made for Italian maiolica, when a, probably cheaper, Low Countries alternative was already available. Finally, for Middelburg's prosperous times, ceramics also were used to communicate beliefs. A tripartite drinking jug, referring to the Holy Trinity, and several vessels with Marian texts, show that the lords of Middelburg adhered to the Roman Catholic religion.

Changes came about from the late 16th century onward, when ceramics were decreasingly used to express economic capital. However, ideas remained associated with these items, in as much that they were deliberately destroyed, probably by the soldiers occupying the castle. Colanders with Marian texts, a plate of Maximilian van Praet and the Montelupo plate of Guillaume II Hugonet, two small redware colanders, some liturgical toys and the possible tankard of Adolf d'Hooge all found their way into the moat or garderobe chutes, most likely because of their reference to the previous occupants. Soldiers replaced this material culture with their very own, in which drinking vessels seem to have taken a prominent place. In using, for instance, the jug with medallion of the Protestant king of Denmark, a person (be it a soldier or one of the commoners during the civilian intermezzo at the castle) publicly expressed his political allegiance when pledging to his peers.

When the troubles calm down in the early 17th century, ceramics continue to tell the story of the common families now inhabiting the castle. The presence of Werra pottery, as goods for the *schamele gemeente*, shows that the high days of Middelburg are long gone.

This statement is somewhat mitigated by the kraak porcelain *klapmuts*, indicating that the castle's occupants had a certain capital and remained relatively well-connected. These connections seem to have been mainly directed toward the present Netherlands, not only in terms of pottery supply (e.g. the redware porringer and stoneware jug with the arms of Amsterdam, Oosterhout imports, ...), but also in terms of mentality. Ceramics testify to the dominant Christian-humanistic values that were adhered to, as expressed through the moralising proverbs on stoneware and faience and in the ideas conveyed by the slipware. Within this mind set, there was room for new consumption practices, such as the smoking of tobacco. However, the access to colonial beverages must have been limited, as evidenced by the find of just a single tea cup. As for the Eighty Years' War, also the troubles of the later 17th century might have hindered the castle's occupants in their material manifestations and consumption preferences. It is perhaps of no surprise that propaganda vessels show up once again for this period. The use and discard of plates referring to prince/king William of Orange might well be related to the presence of Dutch and French troops at Middelburg's castle. However, as ever, Middelburg remained a border town. The presence of a tin-glazed plate with a MA(RIA) inscription, either shows that the dominant Protestant religion alternated with (shorter) periods of occupants adhering to Roman Catholic thought, or results from a hybrid identity, in which the Mary devotion, as of old, found its way into the new religious practice.

Concluding, the analysis of the material from the moat did not only confirm some of the hypotheses already raised in earlier studies of the garderobe chutes and tin-glazed tiles, but, to varying degrees of certainty, it was possible to add some extra elements to these existing narratives. Perhaps even more important, original new insights flowed from the scale of the assemblage. Rather than immediately writing off moats as irrelevant assemblages, I hope that the above shows that a detailed analysis of unclosed features might still be worthwhile.

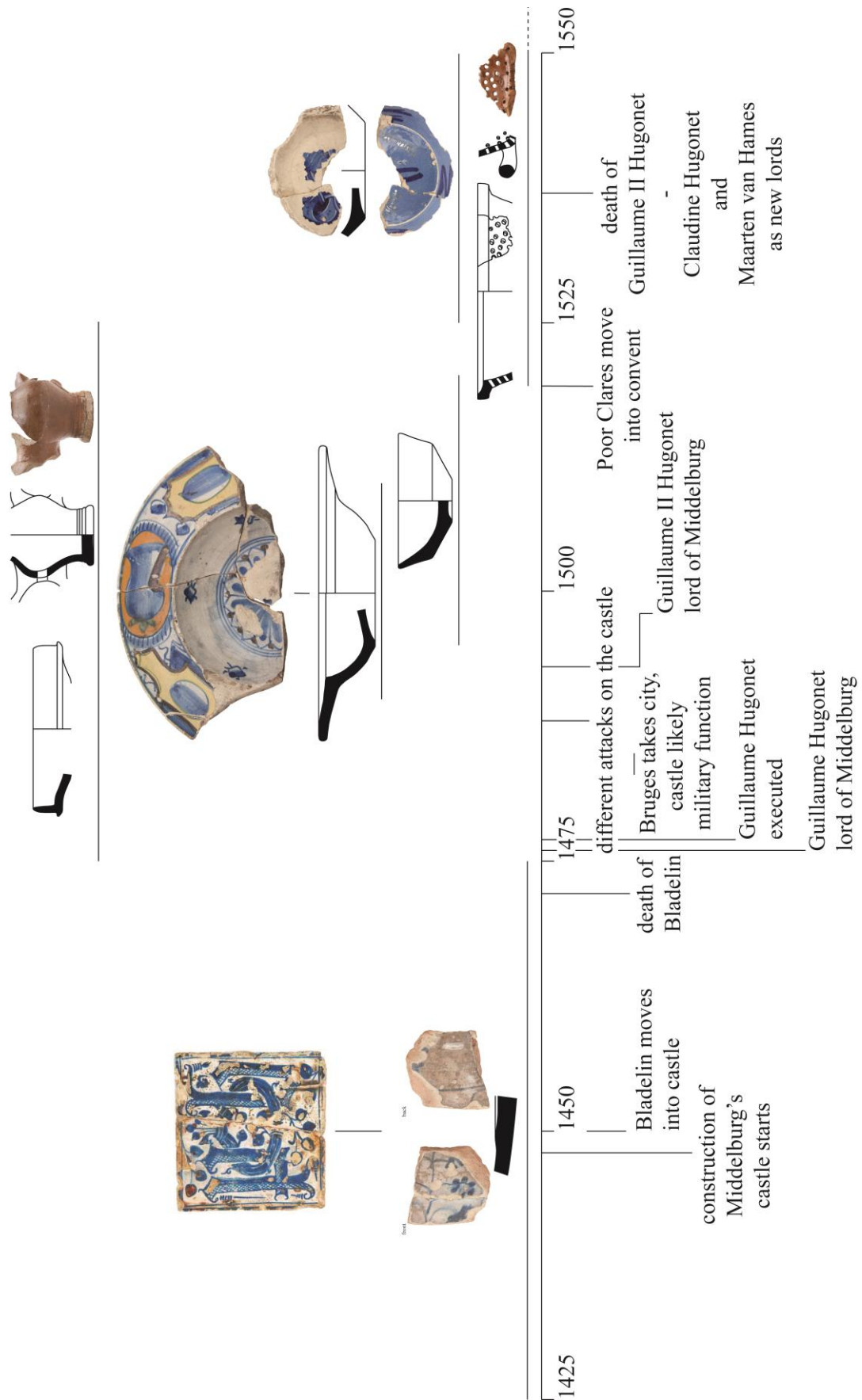


Figure 96 Relation between ceramics and historical events (1425-1550).

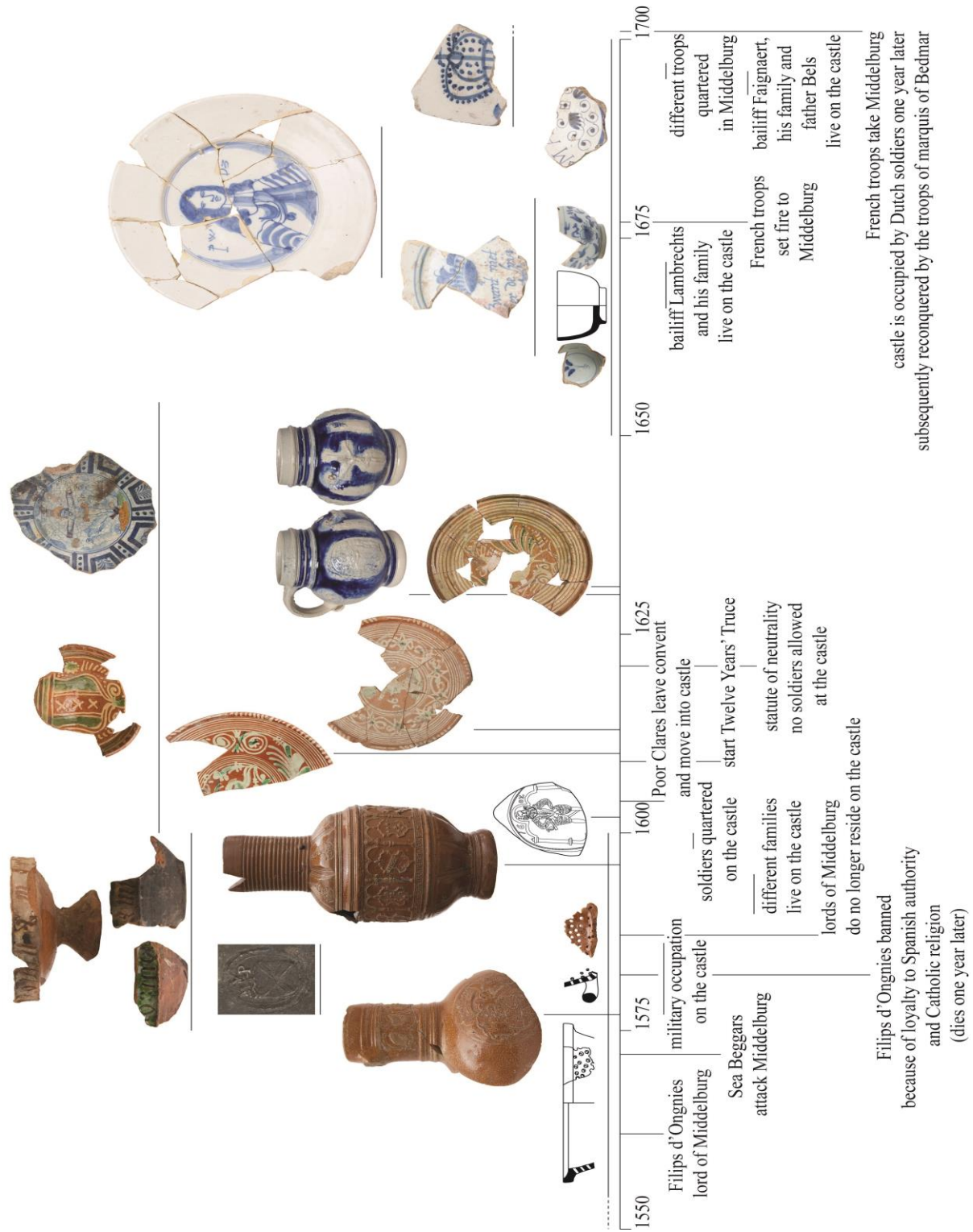


Figure 97 Relation between ceramics and historical events (1550-1702).

4.4 Well

A final assemblage that will be discussed is a well on the upper court. Its location in the northwestern corner of the inner court can be deduced from the vertical sections made by Senneton de Chermont. The finds from this well were recuperated by amateur-archaeologists, prior to the start of the actual excavations, and are currently kept by Paul Verstraete. As there is no guarantee that every ceramic category was retained, I have refrained from any quantification. However, further analysis still holds promise, as it may shed light on when the well was put out of use.

Four ceramic categories were identified: redware, tin-glazed ware, whiteware and stoneware. The redware provides only broad chronological indicators. One of the jugs (Figure 98:1) has been dated to the first half of the 17th century (van Veen 2012, 387, cat. 40) or to the last quarter of the 17th and first quarter of the 18th century (Carmiggelt and van Veen 1995, 59, fig. 48). The oil lamp, however, would rather be typical of the 16th century (Figure 98:3). Although no exact parallels were found, types with large oil bowls are dated to this period (Hurst, Neal and van Beuningen 1986, 139; Bartels 1999, 704, cat. 633).

The date range of the tin-glazed objects seems to be more concise. Plates of which the rim is preserved all show a lacework decoration, either in combination with a landscape scene (Figure 99:1), a putto (Figure 99:2) or fruit (Figure 99:3). As shown throughout this thesis, lacework is particularly popular from the late 17th century onward. The plates are furthermore characterised by a groove under the transition from rim to well, a footring and three small damages of a *proen* (a stilt), used for spacing objects during firing. The same characteristics apply to two base fragments with a coarsely-painted, stylised floral motive (Figure 99:3) or biblical scene (Figure 99:2). This latter scene concerns Tobit 6:3, where the archangel Raphael instructs Tobias to catch a fish after it tries to swallow one of his feet. Tobias succeeds and drags the fish onto the bank of the river, of which he later uses the gall to cure his father's blindness. Tobias's dog is depicted behind the angel. The story of Tobit was a popular theme during the 17th century, resulting in many paintings (e.g. Tobias and the angel – Gaspar de Crayer, Museum of Fine Arts Ghent, 1618). A following tin-glazed vessel is a bowl, decorated with an aigrette pattern and putto in blue and yellow (Figure 99:6). This combined motive was particularly popular between 1625 and 1650 (Baart 2008, 28). This dating is reinforced by the fact that the 'floating' base on which the putto stands is unusual before 1620 (Korf 1981, 33). As such, it should be considered as the oldest tin-glazed object in this assemblage. A final vessel stands out by its small dimensions (Figure 99:7). It is shaped as a handled jar, in an oval form. As has been suggested above for a redware parallel, it probably concerns a toy.

Another toy was present in a white-firing fabric, covered with a colourless lead glaze (Figure 101). With its everted rim and single loop handle, it resembles a miniature chamber pot. A 17th-century date is justifiable for this vessel.

A final category is the stoneware. The oldest find is probably a small spouted jar (Figure 100:9). Ostkamp (2012, fig. 5.3) dates a parallel c. 1450 and attributes it to Langerwehe. The lobed footring suggests that the vessel should indeed be dated before 1550. For the 16th century, both Siegburg and Raeren productions are furthermore represented. A first Siegburg fragment is part of a *Schnelle* (Figure 100:6), dating to the second half of the 16th century and depicting an unidentified mythological, biblical or allegorical scene (Hurst, Neal and van Beuningen 1986, 177). A following base fragment can also be dated to this period as it reads ANNO 1569 (Figure 100:8). In between the two N's, a floral motive was stamped. Vessels originating from Raeren are all late 16th- or early 17th-century panel jugs (Figure 100:5, 7). For one body sherd, a potter's mark is preserved (Figure 100:7). Two lions flank a medallion with an inverse 4, a jug, beaker and the initials WE. These initials have been identified as those of Winand Emonts, potter in the town of Raeren (Hellebrandt 1967, 136, fig. 132:10, 138). The remaining vessels are made in a Westerwald tradition, using cobalt-blue decorations (Figure 100:1-4). The biconic jugs (Figure 100:3-4) are generally dated to the first half of the 17th century (Hurst, Neal and van Beuningen 1986, 224), whereas the floral relief decoration on a last vessel (Figure 100:2) is typical of the latter five decades of that century (Klinge 1996, 45).

Concluding, the finds that were presented as coming from the upper court's well display a wide chronological range, from the later 15th to early 18th century. As it seems illogical that material would have lingered around in the well for centuries, or that such a cheap commodity was kept for so long, I can but conclude that material from other assemblages must have infiltrated the Verstraete collection. As the majority of the finds dates to the late 17th-early 18th century, a closing date for the well is placed in this period.



Figure 98 Local or regional redware pottery. 1-2: jugs, 3: oil lamp.



Figure 99 Low Countries tin-glazed ware. 1-5: plates, 6: bowl, 7: toy(?).



Figure 100 Rhenish stoneware. 1-7: jugs, 8: jug(?), 9: spouted jar.



Figure 101 Whiteware pottery: miniature chamber pot.

4.5 Dietary practices

This subchapter is published in:

Poulain M., Baeten, J., De Clercq W. and De Vos, D. 2016, Dietary practices at the castle of Middelburg, Belgium: Organic residue analysis of 16th- to 17th-century ceramics, *Journal of Archaeological Science* 67, 32-42.

4.5.1 Introduction

Several travellers made accounts of their visit to the Low Countries in the 16th and 17th centuries. In their journals, they reported on the manners and behaviour of both Dutch and Flemings (e.g. de Rochefort 1672; Moryson 1908; Havard de la Montagne 1913). These traveller's accounts, together with several cookery books, make up a considerable part of the current knowledge on dietary and medicinal practices in the early modern Low Countries. However, as these are often products made by and written for the well-to-do, the information available is biased toward specific social groups. In this thesis, it is explored how GC-MS (Gas Chromatography Mass Spectrometry) can contribute to this

debate, using surface residues on 16th- to 17th-century ceramics from the castle site of Middelburg as an example.

A previous article on the content of an ointment jar (Baeten *et al.* 2010), is now complemented with analyses on food crusts and ointments preserved in pottery vessels. Visible surface residues were investigated by GC-MS in order to reveal their original contents and hence shed light on diet and function of the vessels in times of war. The molecular data will then be confronted with contemporary written records.

4.5.2 Material and methods

4.5.2.1 Sample selection

After a visual inspection of the entire ceramic record of the Middelburg excavations, a total of 12 redware cooking pots, 1 redware bowl, 5 ointment pots and 1 unknown redware vessel type were selected based on the presence of visible surface residues (Figure 102) and retained for further analysis.



Figure 102 Preserved surface residues in sample M04.

The cooking pots are characterised by a wide rim opening (12-21cm), a short neck and a base with thumbed feet (M03), a tripod base (M04) or a slightly-concave base (M08). Most of them are covered with a colourless lead glaze and blackened by soot, indicating an intensive use. Then again, the cuff-shaped rim with pronounced lower lip and the application of lead glaze on the inside is typical of the bowl (M13), *teil* in Dutch. The ointment jars consist of 2 maiolica and 3 redware individuals. The maiolica forms (M15, M18) have a concave base, a sharp transition to a cylindrical body and an overall tin glaze. The redware jars (M14, M16, M17) resemble the maiolica ones with a flat base and sharp transition to the body. Finally, with its upright rim, flat base and green glaze on the inside, M19 constitutes an unknown vessel type.

The vessels were found all over the castle site (Figure 103). M10, M11 and M17 were recovered from a garderobe chute on the lower court, while M8 was found amongst the debris of the upper court's southern tower. All other individuals derived from the moats surrounding the castle's buildings. The assemblage containing sample M10, M11 and M17 dates from the late 16th century (Poulain, De Groote and De Clercq 2013). Sample M08, on the other hand, dates somewhere between the late 16th and early 17th century. Finally, the vessels deposited in the moat can all largely be dated between 1500 and 1700.

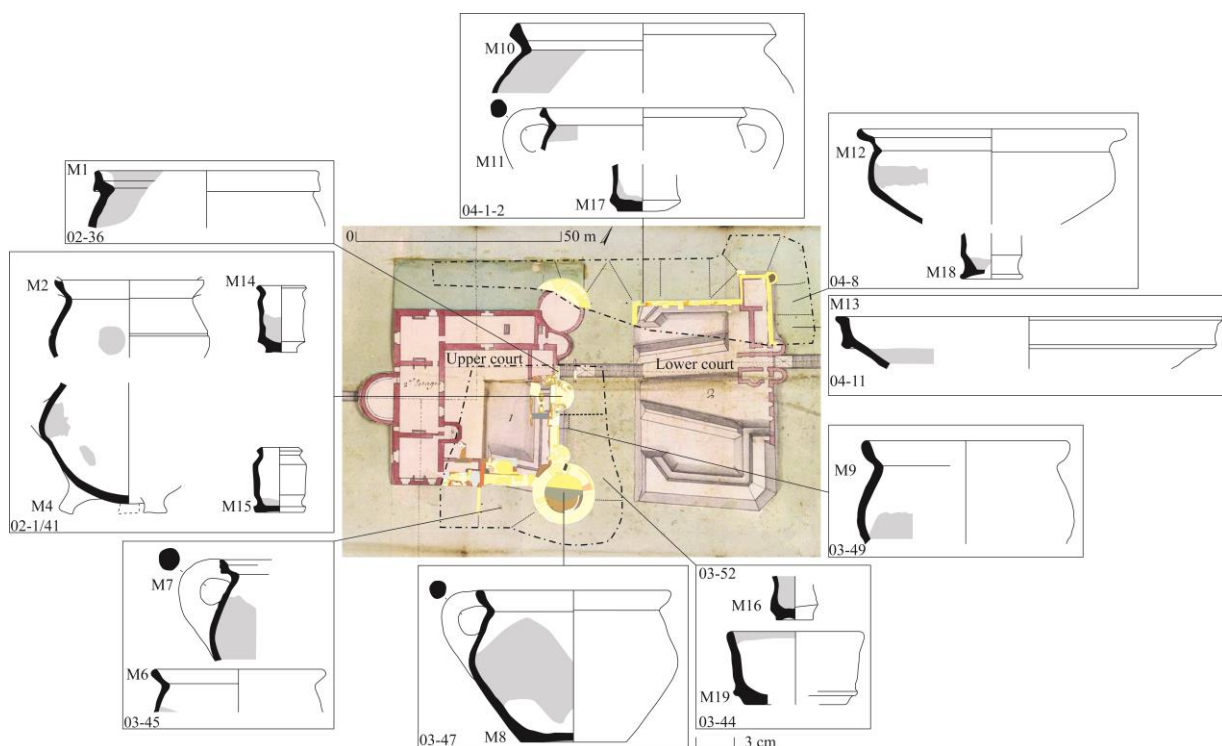


Figure 103 The sampled ceramics with their approximate find location. Preserved surface residues are indicated in grey. M3 and M5 are not depicted as they are body sherds.

4.5.2.2 Sample pretreatment

The surface residues were scraped off from the ceramic sherds with a scalpel and thereafter crushed with mortar and pestle. A standard lipid extraction was performed on

10–200 mg of residue using chloroform : methanol (2:1 v/v) as solvent and ultrasonication to assist the extraction. The samples are listed in Table 15 with the results of this lipid extraction. After centrifugation, a portion of the extract was concentrated and derivatised with N,O-bis(trimethylsilyl)trifluoroacetamide + 1% trimethylchlorosilane and dissolved in toluene before analysis with GC-MS. Another portion of the extract was methylated using boron trifluoride in methanol and thereafter reacted with dimethyl disulfide adducts and iodine to yield dimethyl disulfide adducts. Elemental sulfur was present in 9 samples, most likely due to microbial reduction of marine derived sulfates (Pester *et al.* 2012), and was removed with activated and cleaned copper turnings, according to Environmental Protection Agency method 3660B, to avoid interference with the chromatographic separation. Detailed information on derivatisation protocols can be found in Baeten *et al.* (2013).

Table 15 List of surfaces residues with context information and extraction and total lipid extract (TLE) weights.

label	context n°	upper/lower court	vessel type	location of residues	date	extraction wt (mg)	TLE wt (mg)	yield (wt%)
M01	02-36	UC	cooking pot	rim + inner wall	16 th -17 th c	63.8	0.8	1.3
M02	02-38	UC	cooking pot	inner wall	16 th -17 th c	30.3	1.4	4.6
M03	02-39	UC	cooking pot	inner wall	16 th -17 th c	10.7	1.3	12.1
M04	02-8+41	UC	cooking pot	inner wall	16 th -17 th c	29.2	1.5	5.1
M05	03-45	UC	cooking pot	inner wall	16 th -17 th c	140.9	1.4	1.0
M06	03-45	UC	cooking pot	inner wall	16 th -17 th c	20.4	1.8	8.8
M07	03-45	UC	cooking pot	inner + outer wall	16 th -17 th c	124.5	8.4	6.7
M08	03-47	UC	cooking pot	inner wall	late 16 th - early 17 th c	151.9	1.2	0.8
M09	03-49	UC	cooking pot	inner wall	16 th -17 th c	102.3	0.9	0.9
M10	04-2	LC	cooking pot	inner wall	late 16th c	153.3	1.9	1.2
M11	04-2	LC	cooking pot	inner + outer wall	late 16th c	135	2.4	1.8
M12	04-8	LC	cooking pot	inner wall	16 th -17 th c	37.5	0.9	2.4
M13	04-11	LC	bowl	inner wall	16 th -17 th c	118.1	0.5	0.4
M14	02-38	UC	ointment pot	inner wall	16 th -17 th c	201.2	3	1.5
M15	02-38	UC	ointment pot	inner wall	16 th -17 th c	201	5	2.5

M16	03-52	UC	ointment pot	inner wall	16 th -17 th c	202.1	1.2	0.6
M17	04-2	LC	ointment pot	inner wall	late 16 th c	202.1	6.5	3.2
M18	04-8	LC	ointment pot	inner wall	16 th -17 th c	123.8	1.3	1.1
M19	03-44	UC	? (green glaze)	inner wall	16 th -17 th c	65.1	1	1.5

4.5.2.3 GC-MS analyses

GC-MS analyses were carried out using a 7890A Agilent gas chromatograph coupled to a 5977A mass spectrometric detector. The GC was equipped with a HP-5MS capillary column (30 m x 0.25 mm x 0.25 μ m). 1–2 μ l of each sample was injected using splitless (head pressure 9.15 psi) or pulsed splitless (head pressure 20 psi) injection at a temperature of 290 °C. The initial oven temperature of 80 °C was held for 1 min, ramped at 10 °C min⁻¹ to 150 °C, then ramped at 4 °C min⁻¹ to 320 °C and finally kept at this temperature for 20 min. The transfer line and ion source were held at 330 °C and 230 °C, respectively. The mass spectrometer was operated with an ionisation potential of 70 eV in both scans – with mass spectra taken between masses m/z 50-700 – and selected ion monitoring (SIM) mode. Peak identifications were performed using the National Institute for Standards and Technology (NIST11) and Wiley (W9N08) mass spectral databases, published mass spectra, retention characteristics, mass spectral deconvolution (using Masshunter and AMDIS software) and interpretation of mass spectra.

Isomers of hydroxyoctadecanoic acid were detected as trimethylsilyl (TMS) derivatives and ion screening using the $[M-15]^+$ ion (m/z 429) and ion pairs resulting from α -cleavage next to the trimethylsilyloxy group. Isomers of monounsaturated fatty acids were detected as DMDS adducts of methyl esters and ion screening using the molecular ion M^{+} and ion pairs resulting from homolytic cleavage between the two methylthio groups. *Threo* and *erythro* DMDS adducts result from *cis* and *trans* monoenoic acids, respectively, and are fully separated on apolar stationary phases (*threo* isomers elute earlier). ω -(*o*-alkylphenyl)-alkanoic acids (APAAs) were detected as methyl esters in SIM mode using ions m/z 105, 262, 290, 318 and 346. Polynuclear aromatic hydrocarbons (PAHs) were identified using retention data reported by Wang *et al.* (2007).

4.5.3 Results and discussion

4.5.3.1 General composition of the lipid extracts

Among the cooking vessels (M01–M13, Table 15), 12 out of 13 residues yielded good lipid signals. The chromatogram of sample M09 was the only one that did not show any peaks from lipids. All other extracts were primarily composed of aliphatic lipids (Figure 104), mainly free fatty acids and acylglycerols, suggesting that the cooking vessels are indeed

associated with the consumption of fat-containing foods. The predominance of free fatty acids over mono- and diacylglycerols indicates that the lipids are highly degraded, a feature that is typical for ancient organic residues. This is furthermore demonstrated by the presence of medium chain (*viz.* C₆–C₁₂) fatty acids, ω -hydroxy fatty acids and α,ω -alkanedioic acids as well as hydroxy-C_{18:1} and -C_{18:0}, which are all degradation products of unsaturated fatty acids (Belitz, Grosch and Schieberle 2004). ω -(*o*-alkylphenyl)alkanoic acids (APAAs) and C₂₇–C₃₅ mid-chain ketones provide further evidence that the acyl lipids have been heated to temperatures in excess of 300 °C (Raven *et al.* 1997; Evershed *et al.* 2008). Trace amounts of cholesterol and sitosterol derived steroids also demonstrate that both animal and plant derived products were processed. The presence of levoglucosan and phenolic acids (*viz.* *p*-hydroxybenzoic, vanillic and syringic acid) may further indicate the processing of plant foods. Another surprising find was the presence of pyrogenic PAHs, most notably in sample M07 and sample M11, suggesting that the vessels have been in contact with an open fire.

The residues from the ointment pots (M14–M18, Table 15) yielded highly-variable results. Sample M14 was composed of the same lipids that were detected in the cooking vessel residues, *viz.* fatty acids, mid-chain ketones and steroids. Similar lipids were also present in sample M15, M16 and M17, although in much lower amounts. The lipid extract from sample M18 was composed almost entirely of diterpenoids, which evidence the presence of a plant resin. Sample M19, which constitutes an unknown vessel type, did not show any peaks.

In the following sections, we elaborate on the presence and the diagnostic utility of these compounds. Results are organised per biomarker category (animal products, vegetal foods, biomarkers for processing) and will then be integrated to provide a general view on the ceramics from Middelburg. A summary of all diagnostic biomarkers is given in Table 16.

Table 16 Summary of major biomarkers determined in the surface residues by GC-MS analysis. Presence, absence and uncertain presence are indicated by 'x', 'nd' and '?', respectively. Abbreviations: APAAs = ω -(*o*-alkylphenyl)alkanoic acids, MUFAs = monounsaturated fatty acids, PAHs = polycyclic aromatic hydrocarbons.

category	food type	diagnostic biomarkers	M01	M02	M03	M04	M05	M06	M07	M08	M10	M11	M12	M13	M14	M15	M16	M17	M18		
animal/plants	generic	oxygenated/aromatic sterols †	ch st	ch st		ch st	ch st	ch st	ch st	ch st	ch st	ch st	ch		ch			st			
		CONCLUSION †	A+P	A+P		A+P	A+P	A+P	A+P	A+P	A+P	A+P	A+P	A		A			P		
animal foods	aquatic oils	isoprenoid fatty acids ‡	pr ph	td pr ph	pr ph	td pr ph	td pr ph	ph	td pr ph	td pr ph	ph	td pr ph	td pr ph	td pr ph	td pr ph	td pr ph		td pr ph			
		APAAs (carbon nrs)	18	18 20	18	18 20	18 20	18	18 20	18 20	18 20	18 20	18 20	18	18 20	18 20	18 20				
		MUFAs (carbon nrs) §	17 19	17 19		17 19	17 19	17 19	17 19	17 19	17 19		17 19			17 19					
		CONCLUSION ¶	x	x	?	x	x	x	x	x	x	x	x	?	?	x		?			
plant foods	animal fats	odd chain acylglycerols	x	x	x	x	x	x	x	x	x	x	x	x	x						
		mid-ch ketones (carbon nrs)				29-35	31-35					29	23-35	29-35		23-35					
	beeswax	CONCLUSION ¶¶				x	x	x	x	x		x	x	x	x	x					
		15-hydroxy-palmitic acid		x						x		x	x								
		15-nonacosanone				nd	nd				x	nd	x			nd					
		<i>n</i> -alkanols and <i>n</i> -alkanes	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
open fire	carbohydrates	x			x		x	x	x		x	x									
	phenolic fiber eg. lignin	x	x				x	x	x		x	x									
	pine tar/resin		x					x	x		x							x	x	x	
	PAHs		x		x			x	x	x	x	x	x	x	x	x	x	x	x	resin	

† Animal (A) and plant (P) derived steroids are abbreviated as follows: ch = cholesterol backbone (A), st = stigmasterane backbone (P).

‡ Isoprenoid fatty acids: td = trimethyltridecanoic acid, pr = pristanic acid, ph = phytanic acid.

§ Structure identification of MUFAs was confirmed after dimethylidulfide adduction. Only heptadecenoic acid C17:1, nonadecenoic acid C19:1 and docos-11-enoic acid C22:1(11) are considered diagnostic for fish oils.

¶ Mid-chain ketone origin: R = ruminant, RD = ruminant dairy.

¶¶ Assignment tar / resin is based on presence of aromatised diterpenoids (tars) and/or original diterpenoid acids (resin). See text for further details.

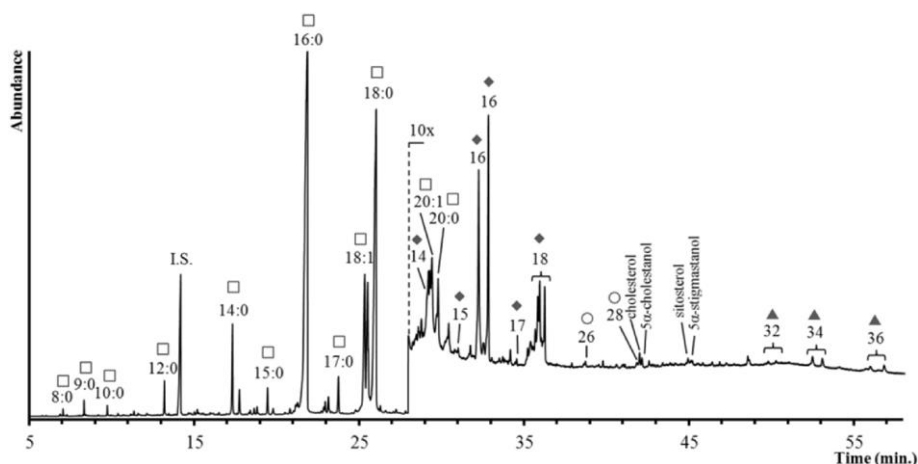


Figure 104 Total ion count chromatogram of the lipid extract. Compounds are labeled as follows (n = carbon number; m = number of double bonds): internal standard (I.S.), fatty acids (open squares, $n:m$), monoacylglycerols (close rhombi, n), n -alkanols (open circles, n) and diacylglycerols (closed triangles, n).

4.5.3.2 Biomarkers for animal foods

4.5.3.2.1 Animal steroids

Steroids such as cholesterol and phytosterols are key biomarkers for distinguishing animal and plant foods, respectively. They are rather infrequently reported in archaeological residues because they constitute only a minor portion of fats and oils. Nevertheless, sterol concentrations vary greatly amongst animal and vegetal foods. For instance, fish oils contain more cholesterol than adipose tissues from terrestrial animals (Heron *et al.* 2013). Phytosterol concentrations also vary greatly in plant oils and vegetables and may even increase during cooking due to hydrolysis of glycosylated and esterified sterols (Kaloustian *et al.* 2008).

The ceramics from Middelburg contain small amounts of steroids, preserved as both unaltered and altered structures. Examples of such altered structures include ketonic and monoaromatic steroid compounds (Figure 105). These structures arise from sterol oxidation (Rontani and Volkman 2005) and sterol dehydration and dehydrogenation (Lichtfouse *et al.* 1998), respectively, and were found in 10 samples (Table 16). Cholesterol derived structures indicate that animal foods have been processed while sitosterol derived compounds serve as indicators for the processing of plant foods.

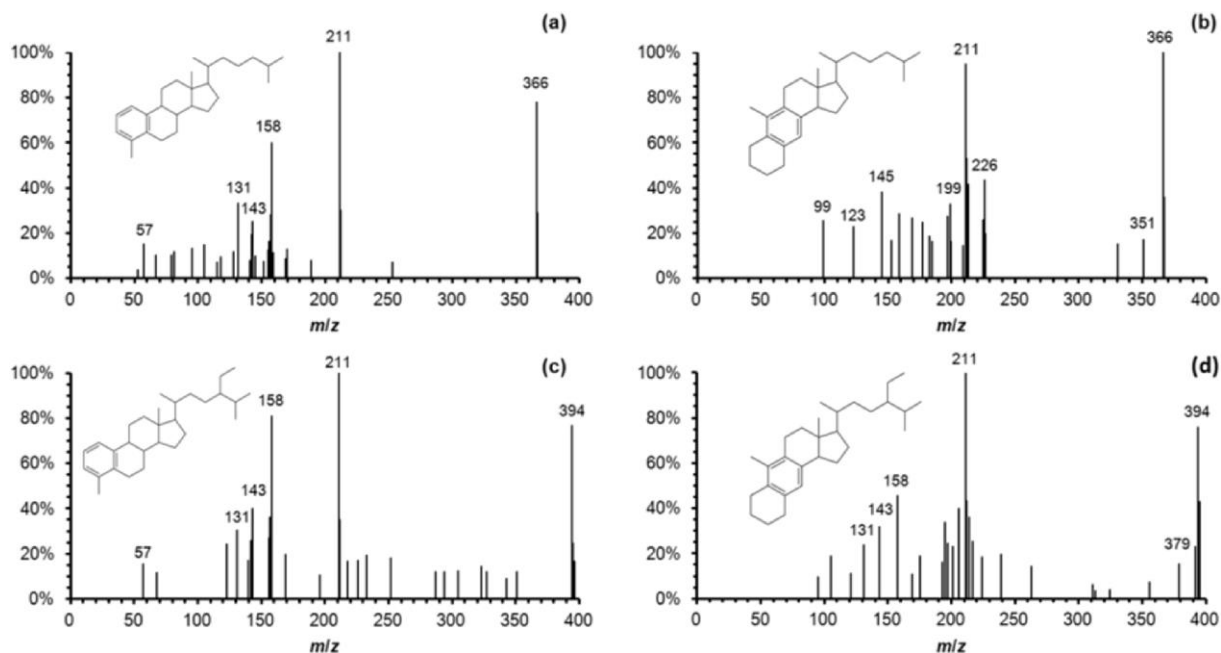


Figure 105 Deconvoluted mass spectra of ring A and ring B monoaromatic steroids: (a) 4-methyl-19-norcholesta-1,3,5(10)-triene, (b) 1(10→6)-abeo-14 β -cholesta-5,7,9(10)-triene, (c) 4-methyl-19-norstigmasta-1,3,5(10)-triene and (d) 1(10→6)-abeo-14 α -stigmasta-5,7,9(10)-triene. Identifications are based on comparison of mass spectra and retention times with published data (Schüpfer *et al.* 2007).

While oxygenated steroids are regularly reported, monoaromatic steroids have not yet been reported in archaeological food residues. Perhaps, this might well be due to the fact that these compounds are not comprised in NIST or Wiley mass spectral libraries and may thus be easily overlooked. Yet, they occur commonly in mature sediments, in which they are presumably formed from $\Delta^{3,5}$ -steradienes (Mackenzie *et al.* 1982; Brassell *et al.* 1984). They may also be formed during pyrolysis as they are present in humin pyrolysates (Lichtfouse *et al.* 1998) and can be catalytically synthesised from cholesterol by heating in vacuum (Kolesnikov *et al.* 1986). Furthermore, pyrogenic aromatisation reactions are known to occur widely in terpenoid families such as pimarane and abietane type diterpenoids (Otto and Simoneit 2001) or oleanane and ursane type triterpenoids (Baeten *et al.* 2014). The fact that similar reactions also act on steroids holds promise for future archaeological biomarker analyses as cooked food residues are known to be associated with compounds formed by thermal decomposition such as mid-chain ketones or APAAs

4.5.3.2.2 Aquatic oils

Out of 17 samples, 13 contained compounds indicative for fish oils (Table 16). These include isoprenoid fatty acids (e.g. 4,8,12-trimethyltridecanoic, pristanic and phytanic acid), monounsaturated $C_{17:1}$ and $C_{19:1}$ fatty acids, and a series of even numbered C_{16} – C_{22} APAAs (Table 16, Figure 106) (Hansel *et al.* 2004; Evershed *et al.* 2008; Baeten *et al.* 2013). Furthermore, sample M07 contained small but distinct signals of cetoleic acid ($C_{22:1}$ cis11) as evidenced by DMDS adduction. This fatty acid is typically found in fish oils (Belitz,

Grosch and Schieberle 2004; Heron *et al.* 2010) whereas its isomer, erucic acid ($C_{22:1}$ cis 13), is present in most oils and fats. The presence of cetoleic acid in this sample hence reinforces the identification of fish lipids. In four samples (Table 16), the identification of fish oils remains uncertain as they exhibit less specific biomarkers such as phytanic acid and $C_{17:1}$ (cf. Baeten *et al.* 2013). Vicinal dihydroxy fatty acids can also provide indications for fish oils (Hansel and Evershed 2009) but their abundance was too low to confirm the presence of fish derived C_{20} and C_{22} dihydroxy acids.

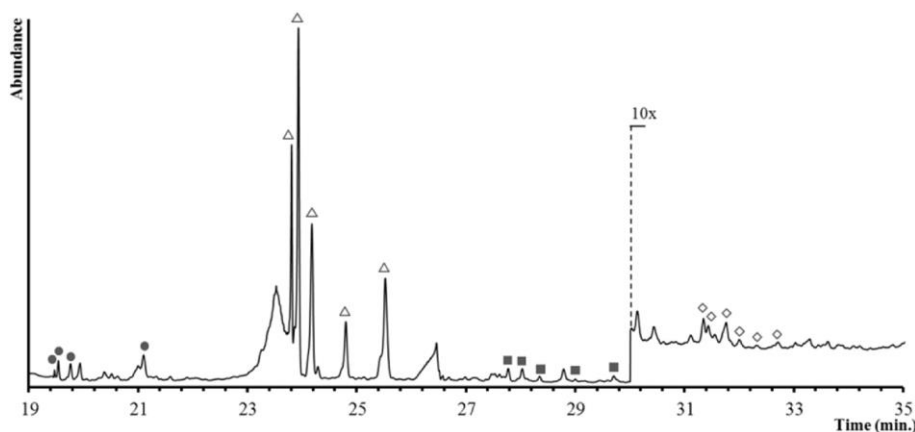


Figure 106 Reconstructed ion chromatogram (SIM mode) of sample M05 showing C_{16} (closed circles), C_{18} (open triangles), C_{20} (closed squares) and C_{22} (open rhombi) ω -(*o*-alkylphenyl)alkanoic acids (APAAs). The broad peaks at 23–24 and 26–27 min. are from methyl stearate and a derivatisation artefact of methyl octadecenoate, respectively.

4.5.3.2.3 Meat lipids

The fact that fatty acids constitute the predominant lipid class in nearly all samples is most likely related to an animal fat or plant oil. The significant amount of odd and branched chain fatty acids and monoacylglycerols, notably C_{15} and C_{17} fatty acids and acylglycerols together with their equivalent iso- and anteiso-isomers, could suggest a ruminant origin. However, these markers may also represent inputs from soil microorganisms given the prolonged contact of the residues with soil organic matter (Heron, Evershed and Goad 1991; Dudd, Regert and Evershed 1998; Kimpe 2013). Furthermore, a broad distribution of *trans* $C_{18:1}$ isomers was detected in most samples, a feature which has been interpreted as diagnostic for ruminant fats (cf. Mottram *et al.* 1999; Baeten *et al.* 2013). However, a catalytic origin, e.g. heating in the presence of metal ions, has never been considered despite its high probability. Therefore, $C_{18:1}$ isomer distributions were not interpreted in residues from cooking vessels.

More diagnostic information can be retrieved from lipid signatures which are locked into altered structures such as mid-chain ketones (Baeten *et al.* 2013). These compounds were present in trace quantities in 6 samples (Table 16). A wide carbon number range is observed in all samples except for M08 (Figure 108), indicating that the ketones were

formed by fatty acid pyrolysis at temperatures exceeding 300 °C (Evershed *et al.* 1995; Raven *et al.* 1997). As the position of the carbonyl group is indicative for the carbon number of the original fatty acids, the original fatty acid profile can be reconstituted via mass spectral deconvolution (Baeten *et al.* 2013). The resulting pattern (Figure 107 and Figure 108) displays two typical features of ruminant fats, namely the presence of odd-chain fatty acids ($C_{15:0}$ and $C_{17:0}$) and the relatively-high abundance of the stearyl moiety ($C_{18:0}$). Furthermore, sample M10 and M14 exhibit also lower molecular weight ketones with carbon numbers as low as C_{23} . The carbonyl position of the latter evidence that medium chain fatty acids (*viz.* $C_{6:0}$ to $C_{12:0}$) have been incorporated into the ketones. These patterns are highly diagnostic for dairy fats (Dudd and Evershed 1998; Belitz, Grosch and Schieberle 2004). This is the first time that such dairy signals are found in mid-chain ketones. The sole presence of 15-nonacosanone in sample M08 coincides with a pronounced peak of nonacosane, which is indicative for a Brassicaceae leaf wax. Sample M11 shows both a wide distribution of ketones and an anomalous presence of 15-nonacosanone and nonacosane, indicating that both animal fats and Brassica leaf wax were processed in this vessel.

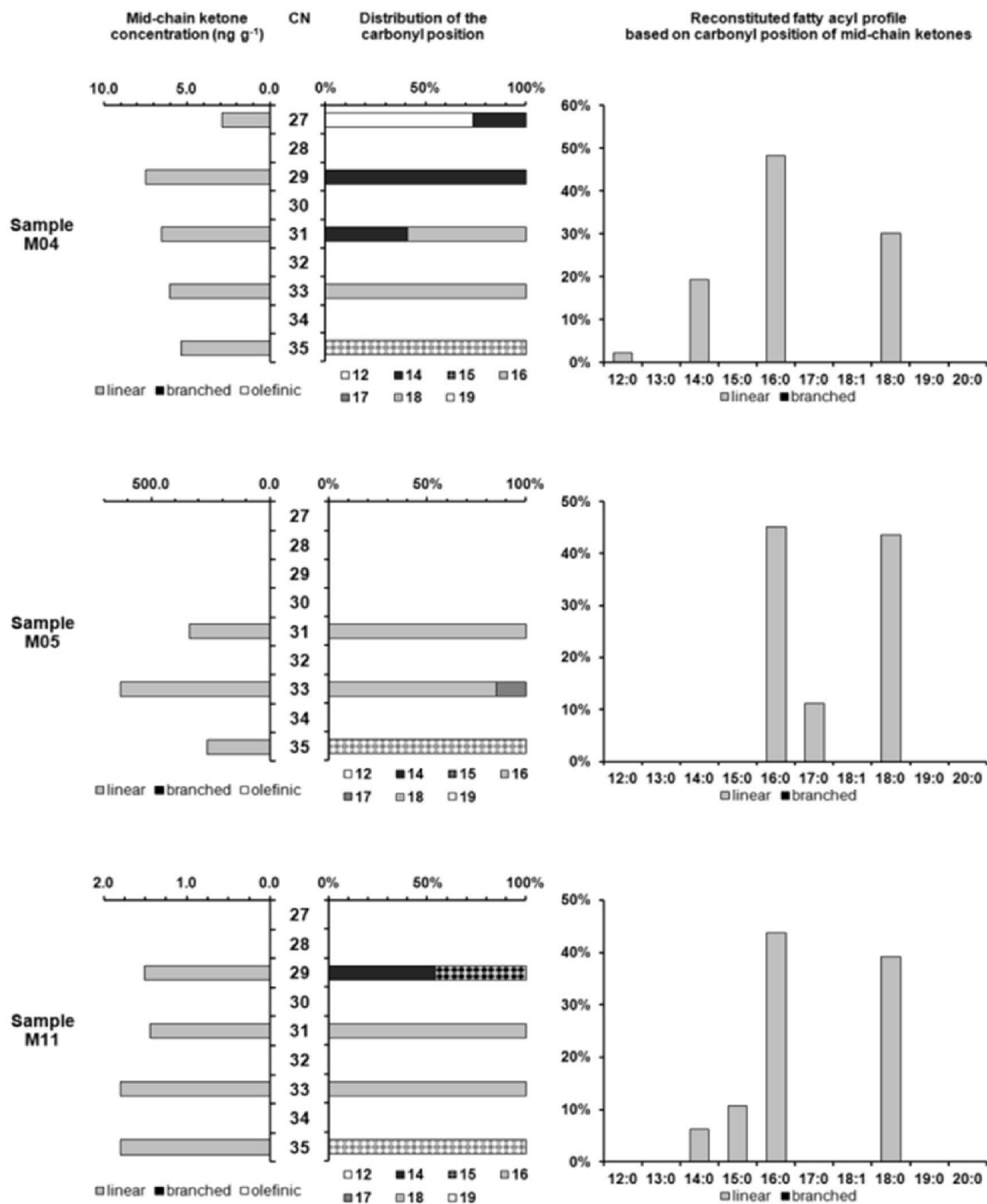


Figure 107 Absolute concentrations (in ng g⁻¹ residue) and carbonyl position distribution of mid-chain ketones in samples M04, M05 and M11. From these two datasets, the original fatty acyl distribution can be reconstituted (cf. Baeten *et al.* 2013).

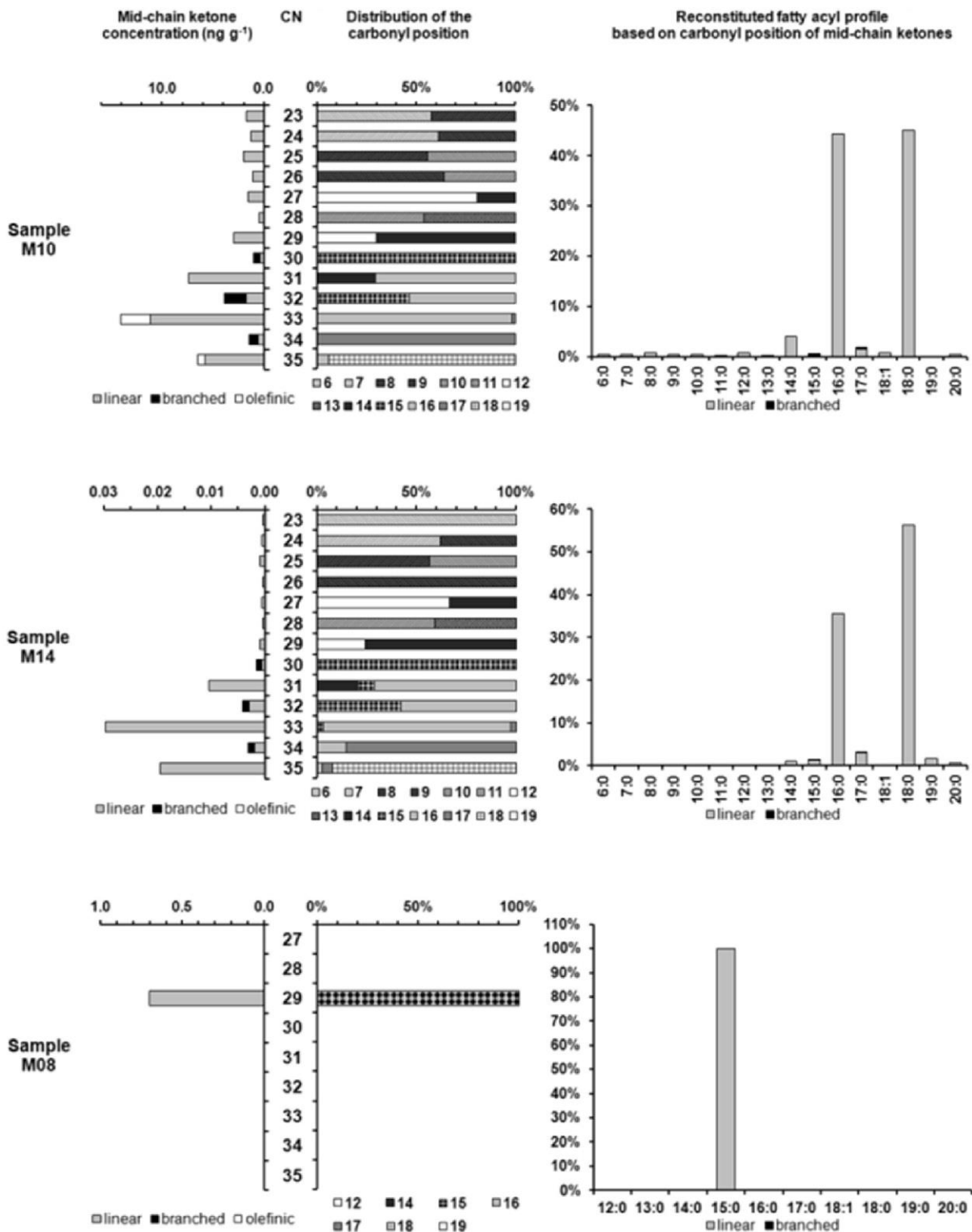


Figure 108 Absolute concentrations (in ng g^{-1} residue) and carbonyl position distribution of mid-chain ketones in samples M08, M10 and M14. From these two datasets, the original fatty acyl distribution can be reconstituted (cf. Baeten *et al.* 2013).

The peculiar finding of dairy signals in mid-chain ketones is striking as these shorter ketones have never been reported before. This is in apparent contrast with the fact that mid-chain ketones are generally picked up quite easily from organic residues and are thus often reported. However, it becomes clear from Figure 107 and Figure 108 that the

concentration of the shorter ketones is much lower than the C_{29} - C_{35} ketones which are most commonly reported. This can be rationalised by the fact that medium chain fatty acids are more water soluble and are more prone to losses. Therefore, their reduced concentration makes that they can be easily overlooked and can be obscured by other chromatographic peaks or simply background noise. Therefore, it is extremely important to adopt a targeted approach involving the extraction of selected ion signals or mass spectral deconvolution techniques (see Baeten *et al.* 2013 for technical details). While the present study involves relatively-recent residues, it remains open whether they would also survive in vessels of prehistoric date.

4.5.3.2.4 Beeswax

Beeswax is composed of odd-chain alkanes and wax esters consisting of palmitic acid and 15-hydroxypalmitic acid esterified with long-chain alkanols and alkanediols. Upon burial these compounds can be hydrolysed, resulting in free acids and alcohols. Original esters were not encountered in any of the lipid extracts, but 4 samples show distinct peaks of 15-hydroxypalmitic acid, long-chain alkanols and alkanes (Table 16). Whereas the latter two may also occur in plant leaf waxes, 15-hydroxypalmitic acid is considered specific for beeswax (Aicholz and Lorbeer 1999; Garnier *et al.* 2002; Baeten *et al.* 2010; Baeten *et al.* 2013).

4.5.3.3 Biomarkers for vegetal matter

The lipid extracts contained many evidences for plant derived compounds, based on biomarkers such as plant derived steroids, long-chain aliphatic alkanols and alkanes, phenolic acids and levoglucosan. These markers will be explained below.

4.5.3.3.1 Plant steroids

Plant-derived steroids include unaltered sitosterol and stigmasterol (only once in sample M18), as well as oxidised and monoaromatic phytosterols (Table 16). In order to exclude possible soil-derived sterols, only altered phytosterols were taken into account to assess vegetal inputs. In this way, 10 samples were found to have been used to process plant foods (Table 16).

4.5.3.3.2 Leaf waxes

Long-chain even-numbered alkanols (C_{20} - C_{34}) and odd-chain alkanes (C_{23} - C_{33}) were detected in many samples, often in small or trace abundances (Table 16). These compounds derive from plant leaf waxes or beeswax. Unfortunately, the exact source of these markers cannot be stated with certainty. The alkanols and alkanes could indeed have a vegetal origin, particularly in samples that were devoid of the beeswax marker 15-hydroxypalmitic acid. On the other hand, they may also represent intrusive soil lipids.

Furthermore, the anomalous presence of 15-nonacosanone and nonacosane in two samples (M08 and M11) is clearly diagnostic for a leaf wax from the Brassicaceae family (e.g. cabbage, turnip, mustard) (Baeten *et al.* 2013).

4.5.3.3.3 Plant biomass

Eight samples (Table 16) showed distinct peaks of phenolic acids (e.g. *p*-hydroxybenzoic, vanillic and syringic acid) and corresponding benzaldehydes (e.g. *p*-hydroxybenzaldehyde, vanillin and syringaldehyde). These compounds derive most likely from ligneous or cuticular plant tissues. Lignin is a ubiquitous structural plant polymer consisting of interconnected phenylpropanoid monomers. Pyrolysis of this polymer yields predominantly phenolic acids and aldehydes while original substituents of the phenol ring are retained. Hence, the incomplete combustion of coumaryl, coniferyl and sinapyl type lignins leads to *p*-hydroxyphenyl, vanillyl and syringyl type acids and aldehydes, respectively (Simoneit *et al.* 1993). Additionally, the food crusts may have received inputs from coumaryl or feruloyl esters occurring widely in fruits and vegetables as well as in suberin and arabinoxylans (Kolattukudy 1980; Belitz, Grosch and Schieberle 2004).

Levoglucosan is a major product of pyrolysed carbohydrates including monomeric glucose units and polysaccharides such as cellulose (Simoneit *et al.* 1999) and was detected 8 times (Table 16). Heating of carbohydrates above 300 °C initiates a series of reactions involving bond cleavage by transglycosylation, fission and disproportionation, ultimately yielding anhydro sugars and volatile products (Simoneit *et al.* 1999). A major product is the 1,6-anhydride of glucose which is called levoglucosan.

4.5.3.3.4 Resins

As a minor compound class, the food crusts also contain di- and triterpenoids. The latter include lupeol, lupenone, friedelan-3-one, α -amyrenone and β -amyrenone and reflect an input from higher plant tissues (e.g. cuticles) or exudates (e.g. resins). Diterpenoid signatures were present in 8 samples (Table 16). They were mostly detected in low abundances and consisted of dehydroabietic acid and retene, characteristic markers for a tar derived from the Pinaceae family (pine, spruce, larch, etc.). Sample M18 constitutes an exceptional pattern in that the diterpenoids dominated the chromatogram. Fatty acids, long-chain alkanols and sterols were only detected in trace abundances. Abietane (e.g. abietic acid, dehydroabietic acid, 9,10-secodehydroabietic acid) and pimarane diterpenoids (e.g. pimaric acid, sandaracopimaric acid, isopimaric acid) are diagnostic for a resin from the Pinaceae family. Furthermore, the absence of retene and pimanthrene indicates that the vessel had contained a natural resin and not a tar or pitch (these are obtained by thermal extraction of woods).

4.5.3.4 Biomarkers for thermal processing

Biomarkers for thermal processing have already been discussed above. It was demonstrated that plant biomass (*viz.* sterols, phenolic acids and carbohydrates) has been subject to pyrolytic conditions. The presence of hydroxylated and oxygenated fatty acids, formed by autoxidation, is also consistent with this pattern although autoxidation reactions may also proceed at ambient temperatures. Mid-chain ketones and APAAs are formed at temperatures in excess of 300 °C and 270 °C, respectively (Raven *et al.* 1997; Hansel *et al.* 2004). Nine samples contain yet another set of markers, *viz.* polycyclic aromatic hydrocarbons (PAHs), which evidence that the food crusts have been in contact with even higher temperatures (Figure 109, Table 16). PAHs can be formed from different types of organic or carbonaceous matter through partial cracking into unstable radicals and subsequent pyrosynthesis (Simoneit 2002). Initial low molecular weight products such as naphthalene may grow with increasing residence times and temperature via the ‘zigzag’ addition process leading to the formation of species such as benzo[a]pyrene and benzo[ghi]perylene. Experimental charring of grass and pine wood evidenced that PAH formation is the greatest at temperatures between 400 °C and 600 °C (Keiluweit *et al.* 2012). Many of these higher molecular weight PAHs are toxic and hence pose major health concerns in industrial activities involving combustion processes.

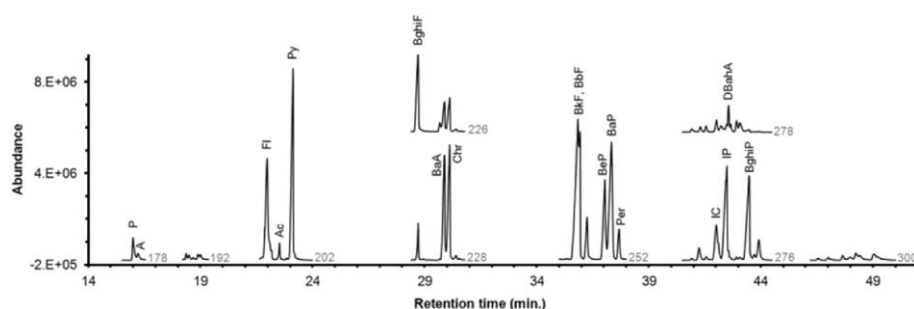


Figure 109 Partial selected ion (grey numbers) chromatograms of sample M07 showing the presence of PAHs. Peak labels: P = phenanthrene, A = anthracene, Fl = fluoranthene, Ac = acephenanthrylene, Py = pyrene, BghiF = benzo[ghi]fluoranthene, BaA = benzo[a]anthracene, Chr = chrysene, BkF = benzo[k]fluoranthene, BbF= benzo[b]fluoranthene, BeP = benzo[e]pyrene, BaP = benzo[a]pyrene, Per = perylene, IC = indeno[7,1,2,3-cdef]chrysene, IP = indeno[1,2,3-cd]pyrene, DBahA = dibenzo[ah]anthracene, BghiP = benzo[ghi]perylene.

Sample M07 and M11 exhibited the highest concentration of PAHs (Figure 109). PAHs such as phenanthrene, fluoranthene and pyrene were also detected in samples M02, M04, M06, M08, M10, M12 and M14 but in much smaller amounts compared to sample M07 and M11. The presence of these PAHs in the food crusts likely originate from open fires which have been used as heating source for the cooking vessels. This hypothesis can be verified by looking at diagnostic PAH ratios, which are used widely in environmental studies to distinguish fossil fuel (petrogenic) and combustion (pyrogenic) sources (Tobiszewski and

Namieśnik 2012). MP/P values < 1.0, Fl/Fl+Py values > 0.4, BaA/BaA+Chr values > 0.35 and IP/IP+BghiP values > 0.5 are observed in almost every sample (Table 17) and this is consistent with a pyrogenic origin. Only one sample exhibits a MP/P value of 1.4 but this may be explained by combustion at lower temperatures around 400 °C (Keiluweit *et al.* 2012). Furthermore, the presence of retene in several samples (Table 16) may indicate that the wood fuel consisted of pine woods as this abietic acid-derived molecule is highly diagnostic for members of the Pinaceae family.

Table 17 Summary of PAH ratios in the food crusts.

PAH ratio ^a	M02	M04	M06	M07	M08	M10	M11	M12	M14
MP/P	0.53	0.71	0.14	0.68	0.40	0.47	0.80	1.4	0.55
Fl/Fl+Py	0.51	0.54	0.59	0.44	0.49	0.45	0.46	0.46	0.57
BaA/BaA+Chr				0.48		0.4			
IP/IP+BghiP				0.52					

^a Abbreviations: MP = sum of methylphenanthrenes, P = phenanthrene, Fl = fluoranthene, Py = pyrene, BaA = benzo[a]anthracene, Chr = chrysene, IP = indeno[1,2,3-cd]pyrene, BghiP = benzo[ghi]perylene.

Perhaps it is not a coincidence that crusts M07 and M11 exhibited the largest concentrations of PAHs. These samples were taken both on the interior and exterior vessel wall, whereas other samples were taken only on the interior sides (Table 15). Outer crusts are presumed to be spills or residues resulting from overcooking and are expected to accumulate the largest amount of PAHs due to direct contact with the heat source. Nevertheless, it can be envisaged that PAHs may be transported via smoke particles, which would explain why PAHs were also present in inner crusts. Alternatively, PAHs may have been formed in situ by heating at temperatures above 400 °C.

The presence of PAHs in interior surface residues may also raise questions whether other biomarkers such as phenolic acids or levoglucosan represent smoke particles from the wood fire or are indigenous to the processed foods. It is not clear how these two sources may be distinguished from one another. Nevertheless, the fact that PAHs do not always co-occur with biomarkers for plant biomass may suggest that the latter are derived from processed foods.

4.5.3.5 Integration of all biomarker evidence

4.5.3.5.1 Cooking vessels

The molecular composition of the carbonised surface residues displays clear biomarkers for degraded fatty material associated with food consumption (Table 16). Particularly the presence of stable degradation products such as ω -(*o*-alkylphenyl)alkanoic acids, mid-chain ketones and aromatic steroids bears evidence for the processing of both vegetal and animal food commodities at elevated temperatures. The overall pattern is that the cooking vessels were used to prepare a great variety of foodstuffs. Biomarkers for

ruminant fats were recorded in 5 samples, biomarkers for fish oils in at least 9 samples. The ruminant fats could be further specified to dairy fats in two cases based on the carbon number distribution of the mid-chain ketones. Still, it is possible that the actual portion of dairy fats and fish oils may be underestimated due to poor biomarker preservation. Lipids derived from aerial plant surfaces and markers for plant biomass were also detected in many samples. In two cases, the presence of a Brassicaceae wax could be evidenced. In another four cases, beeswax was identified which might be related to the consumption of honey. Furthermore, the cooking vessels appear to have been heated on open fires. Evidence for this is provided by the presence of pyrogenic PAHs resulting from the incomplete combustion of organic material at temperatures between 400 °C and 600 °C. The presence of retene in several samples further indicates that pine woods were used as fuel.

From a methodological point of view, it was interesting to see that the recently-proposed fish biomarkers, $C_{17:1}$ and $C_{19:1}$, were detected along with the conventional fish biomarkers, and that DMDS adduction was instructive to identify another fish biomarker, namely cetoleic acid ($C_{22:1}$ cis11). Furthermore, the fact that pyrolytic process may transform sterols into monoaromatic steroids holds promise for future biomarker analyses, particularly when plant vs. animal inputs have to be evaluated. This study also represents the first instance in which dairy signals have been identified in mid-chain ketones.

The study also highlights the caution with which results from surface residues has to be interpreted. In comparison to absorbed residues which are absorbed in micropores within the ceramic vessel wall, surface residues are much more exposed to the surrounding soil and may suffer from intrusion from extraneous soil lipids. Generally, original unaltered biomarkers, such as free fatty acids and sterols, were considered more dubious as they might as well originate from soil lipids. On the other hand, altered biomarkers, such as mid-chain ketones, ω -(*o*-alkylphenyl)alkanoic acid or monoaromatic sterols, cannot be linked with post-burial intrusions but instead indicate that foods were heated in the vessels. Because of the complexity and the possible post-burial alteration of the samples, additional bulk and compound-specific stable isotope analyses on the fatty acids were not performed.

4.5.3.5.2 Ointment vessels

The ointment vessels have yielded variable results. Sample M14 contained typical food biomarkers of dairy fat, fish oils, possibly admixed with leaf waxes. The interpretation of this sample remains somewhat problematic. Although it could just be a concoction of animal and plant extracts, a comparison for such a mixture was not found in early modern medicine books. Sample M18, on the other hand, did not contain any other lipids than Pinaceae derived resin acids. The unaltered preservation state of the original resin acids

suggests that this particular vessel may have been used to store the resin. The other samples contained low amounts of rather generic lipids which make further interpretations difficult.

4.5.3.6 Discussion

How does the biomarker evidence above compare to the available ceramological and historical data? Concerning forms related to food, the residues seem to resemble one another, despite the broad chronological spread of the pottery, ranging from the 16th to 17th centuries. The general interpretation coming forward is that cooking pots were used for preparing multiple foodstuffs, not necessarily all at once, and that typology is not always bound to a certain function. All sorts of cooking pots seem to have served a similar purpose. Of particular importance is the bowl (M13). Although this form is traditionally associated with skimming cream of milk (hence often called milk bowl), these analyses show that this form could indeed have had multiple functions, as it contains possible remnants of fish and plant foods. Finally, there does not appear to be a real difference in the consumption of food stuffs between the upper and lower court. Although this is slightly contradictory to what one may assume, multiple causes (e.g. limited sample size and unknown patterns of refuse disposal) can lie at the basis of this observation.

As glaze prevents the fabric from soaking up foodstuffs and allows the ceramics to be easily washed up, it could be suggested that the residues represent a single meal, rather than different ones. The possible combination of multiple foodstuffs is in line with the many recipes in early modern cookery books for hodge-podge, a dish combining vegetables, meat or fish. The combined use of meat and fish in such a hodge-podge is however unprecedented and may thus be illustrative of the discrepancy between cookery books and everyday practice. Next to bread, this stew, together with a sort of thick soup called *potagie* (pottage) is considered to be the daily dish in early modern Flanders (Lindemans 1952; Rooms 2003). As some of the ceramics can be associated with the military occupation on the castle in the late 16th-early 17th century, these analyses, although small in number, might suggest that a soldier's diet did not differ significantly from a civil one, confirming Morineau's statement (1963) on the common character of the military ration.

Furthermore, as with the bowl, these analyses show that the traditional nomenclature for the ointment jar is too restricting since at least one of these jars functioned as a container for resin. Resins are often used as an ingredient in medicinal formulation in early modern times. To name but one example, in their *Medecyn Boec* Christoph Wirsung and Carel Baten (1593, f. 510) mention several resins and gum resins (e.g. mastic, galbanum, ammoniacum, bdellium and opopanax) as key ingredients for a healing ointment. Such mixtures of resins, based on terpenoids, were identified in the Barber-Surgeon's medicine chest from the *Mary Rose*, which sank in 1545 (Evershed, Jerman and Eglinton 1985; Edwards *et al.* 2004). The presence of such a raw ingredient suggests the

possibility of a surgeon, doctor or pharmacist on the castle site, producing ointments to heal the wounds soldiers, an idea that had already been raised on the basis of the ceramics study and earlier ointment analysis (De Clercq *et al.* 2007; Baeten *et al.* 2010).

4.5.4 Conclusion

The study of organic residues preserved in ceramics has been a major focus in the field of residue analysis. However, constant scrutiny should be exerted to prevent over-interpretation of molecular signals and confusion with extraneous contaminants (Steele 2013). The mixing of various food commodities (e.g. in stews) and the use (or reuse) of pottery for the processing of various foodstuffs are further complicating factors (Baeten *et al.* 2013). In this respect, ceramics from early modern assemblages – often narrowly dated – constitute interesting study objects. The interplay with the myriad of historical sources available and the chemical data thus make the castle site of Middelburg a good basis for further comparison. For the first time, a considerable number of surface residues from the early modern Low Countries were analysed using GC-MS. In doing so, these analyses not only resulted in methodological advancements in biomarker identification and archaeological nomenclature but, moreover, a new stimulus is given to early modern food history by providing information on the dietary practices on a particular site and of specific social groups.

Chapter 5 Middelburg's Poor Clares convent: a life of poverty and austerity?

Parts of this chapter have been published in:

Poulain M. and De Clercq W. 2015b. Het arme-klarenklooster te Middelburg-in-Vlaanderen (1515-1604): een archeologisch-topografische analyse, in Verstraete E. (ed.), *Monasterium Clarissarum de Middelburg in Flandria (1515-1604) en de twee kloosters die er uit gesproten zijn te Ieper in 1597 en te Luik in 1604*, Maldegem: Gemeentelijke Cultuurraad, 64-97.

5.1 Introduction

In 2006 and 2010, excavations were carried out on the site of the Poor Clares convent in Middelburg-in-Flanders. Between 1515 and 1604, the city periodically housed a community of Poor Clares in its centre. This convent was the earliest in contemporary Flanders to be organised according to the first rule of Saint Clare, enforcing a life of poverty and austerity. However, do the finds reflect this life of abstinence or were these *holy vows* quickly exchanged for more *worldly manners* (Herremans 2013)?

Before the actual analysis of the ceramics (supplemented with the study of bone material and architectural remains), a brief excursion is made about the history of the convent as it already sets a primary date for the assemblage that is central to this chapter. In the following analysis, the focus on the architectural features of the convent is given more weight, compared to the other sites discussed in this thesis. As the number of ceramic finds is only limited, all datasets are exploited in order to interpret the assemblage to its maximum extent.

5.2 A turbulent history

The origins of the Poor Clares convent in Middelburg lie in the 15th century. Initially, Pieter Bladelin intended to convert the old church of Heille, a nearby hamlet, into a nunnery but he abandoned these plans for unknown reasons. The convent was eventually built in 1515 by William Hugonet II (1493?-1537), one of Bladelin's successors as lord of Middelburg. The reason for this build remains a matter of debate. The 19th-century historian Karel Verschelde accused Hugonet of having poisoned his mother, Louisa de Layé, who died 1506. Based on this accusation, Verschelde (1867, 74-75) considered the foundation of the convent as a form of penance for his crime. Another (more plausible) explanation is put forward by Lippens and Martens. They regard the build of the convent as an act of Hugonet's piety (Lippens 1953, 62; Martens 1994c, 2).

Prior to the build of the convent, Hugonet was given consent by Pope Leo X, the abbot of the St. Bavo abbey, the bishop of Tournai and the priest of Middelburg (Verschelde 1867, 193; Lippens 1953, 61, 65-66; Martens 1994b, 40). One of the conditions for approval was that the sisters had to offer a wax candle in the abbey of Ghent, each year on the feast day of St. Bavo (Verschelde 1867, 49). After the consent had been given, Hugonet provided two *gemeten* land within the city for the build of the convent. His sister Estienne (Stephanie) Hugonet was subsequently appointed abbess. Pending the end of construction, the community took up residence in the town house of the lord of Middelburg, across from the church on June 2, 1515. On March 25, 1519, all of the 16 sisters moved to their newly-built nunnery (Martens 2015, 35).

In 1522, only three years after the Poor Clares had moved, Stephanie Hugonet died, and a new abbess had to be appointed. Clara Huwicx, Catharina vander Burg, Barbara vander Seele and Francisca Martens followed her into office, respectively. Under the rule of Martens, more specifically on June 16, 1579, the sisters moved to the *Carmersstraat* in Bruges, to distance themselves from the religious troubles of the Eighty Years' War. When the nearby Bruges also got caught up in the turmoil, some sisters were sent home, while the rest settled in Lille, still under Martens' guidance. After the seizure of Sluis by the Spanish king in 1587, the sisters returned to their convent in Middelburg, only to find it in ruins (Verschelde 1867, 196-197; Lippens 1953, 70-71; Martens 1994c, 3; 2004b, 313; 2005, 286). The nunnery was restored, and, under prioress Maria vander Elle (or Marie Van Helle), it prospered once again. However, this flourishing was short lived.

On April 31, 1604, shortly after Aardenburg and Sluis were retaken by Maurice of Nassau, the sisters definitely left the convent and were temporarily accommodated in the city's castle. They left the castle on May 12 and settled in communities in Ypres and Liège, foundations of Middelburg's Poor Clares nunnery (Verschelde 1867, 198-203; Lippens 1953, 73, 75; Martens 1994c, 1, 3). Shortly before the raid of Maurice's troops on Middelburg, a few stragglers threw some household goods in the wells on the convent's

property with the intention to recover it later (Martens 2005, 305). However, the nunnery was subsequently destroyed by Dutch soldiers. According to a testimony of a captain of the fort St. Job dating from 1628, the condition of the convent was so dilapidated that the soldiers of camp master Thoricourt had to build a lean-to with thatched roof against the convent's façade to attend Mass high and dry during the Twelve Years' Truce (1609-1621) (Martens 2005, 306). Decay was complete in 1630 when a certain Michiel de Wachter restored the choir of the church with 1,100 bricks from the hospital and 34,000 bricks from the nunnery (Verschelde 1867, 152, 203; Martens 2008, 293).

5.3 Layout of the convent

Before moving on to the actual analysis of the ceramic material, I will first try to reconstruct the internal structure of the convent in which it was consumed, based on iconography, archaeology, physical anthropology, and comparative research. Geophysics have been performed, but the interpretation of the resulting data was no longer possible within the time frame of this research. However, a first exploratory view confirms the reconstruction made below, moreover supplementing it with thus far unknown features. Additional coring is necessary to characterise the detected features, trace their limits and secure their dating.

5.3.1 Iconography

The convent of the Poor Clares is depicted on different historical maps. The oldest map dates to the middle of the 16th century and was made by Jacob van Deventer (Figure 110). It shows a built-up block, with the convent's church in the centre, at a right angle to the city's canal. The church has a simple volume and is equipped with a roof turret, a generally six- to eight-sided little clock tower (Haslinghuis and Janse 2005, 142).

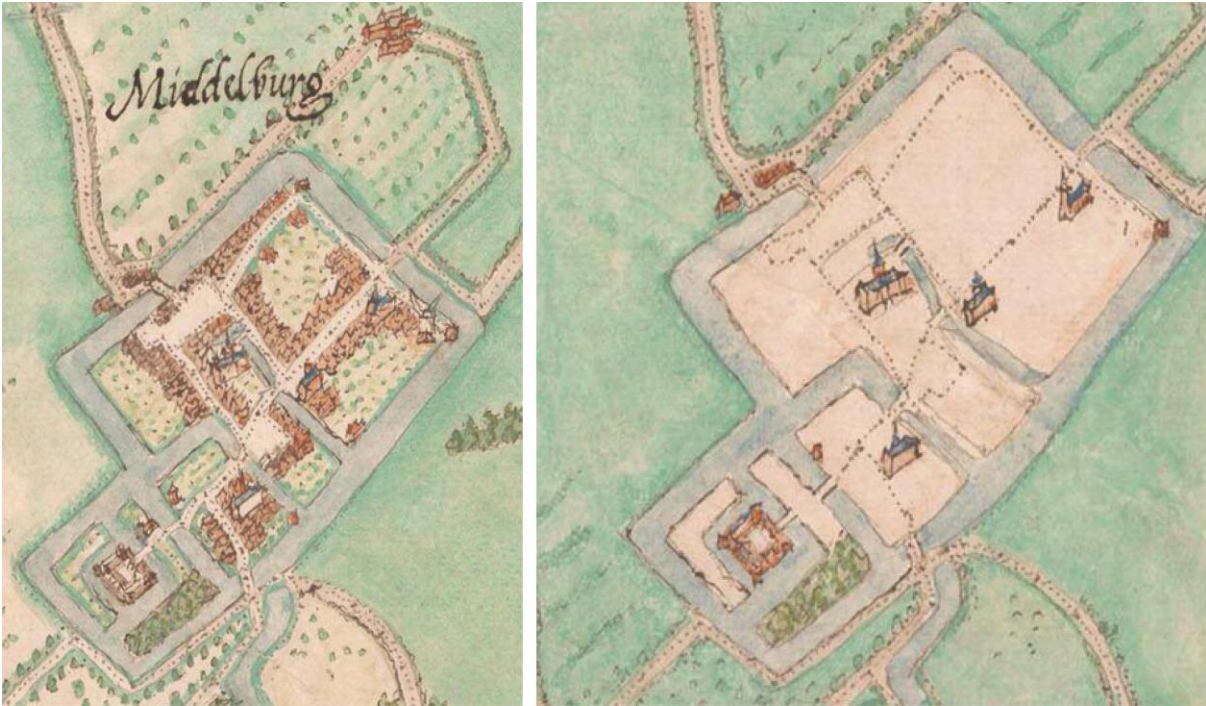


Figure 110 Map by Jacob van Deventer, mid-16th century (© Biblioteca Nacional de España).

A next map dates to 1605-1609 (Notteboom 1987; Martens 2006) and was drawn as part of the refortification of Middelburg (Figure 111). It shows an enclosed area, designated as *tClooster*, of which the entrance is situated right next to the city's canal. The church retains the same orientation and position, but looks different in comparison to van Deventer's map. A portal with tower seemingly gives out onto a nave, of which the sides are opened with two windows. A choir is possibly linked up. Although the convent was no longer inhabited after the departure of the Poor Clares in 1604, the domain and church were still recognisable as such. This observation is confirmed by historical sources, as soldiers built a lean-to incorporating the convent's façade to attend Mass (Martens 2005, 306). The convent was thus not only recognisable, but still functioned as a religious space, certainly in the early 17th century.

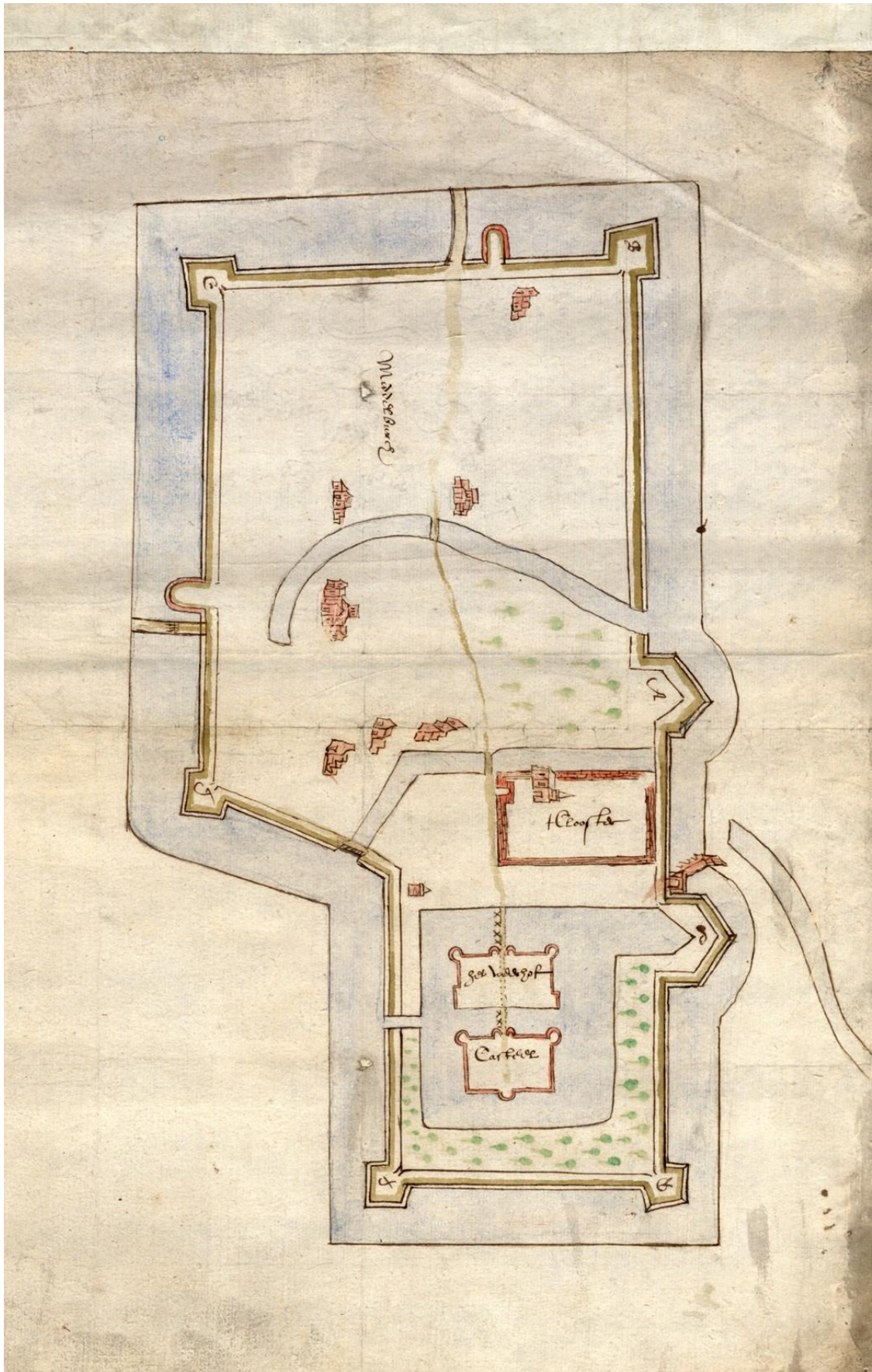


Figure 111 Map of Middelburg, dated 1605-1609. The former convent is still indicated as *t Clooster* (City Archive Ghent, Vreemde Steden, inv. nr. 83).

Throughout the 17th century, the convent's church was not (entirely) dismantled. A map dated 1681 still depicts the church in the center of the block. However, the building is somewhat tilted in comparison to the previous maps. This is probably merely the result of the perspective chosen, where the church would not be visible at a right angle to the city's canal. Also in contradiction to the 1605-1609 map, is that the entrance to the premises is now in line with the church. The other sides of the block seem to be fully built up.



Figure 112 Detail of the map of the Sint-Pieters dike and polders around Aardenburg, Sluis and Middelburg, 1681 (RAG 1346).

The map of Jan and Pieter d'Herbe (c. 1750), then again, shows two entrances to the convent, both in line with the church as next to the canal (Figure 113). The former church, with rounded choir, is linked up with the backyards of the buildings on the *Kloosterstraat*, and is designated as *Oud klooster*. Again, this indicates that, although the convent was no longer in use, its buildings were still associated with its former religious meaning. The area to the south of the church is not built up, in contrast to Jacob van Deventer's map, but consists of an orchard.

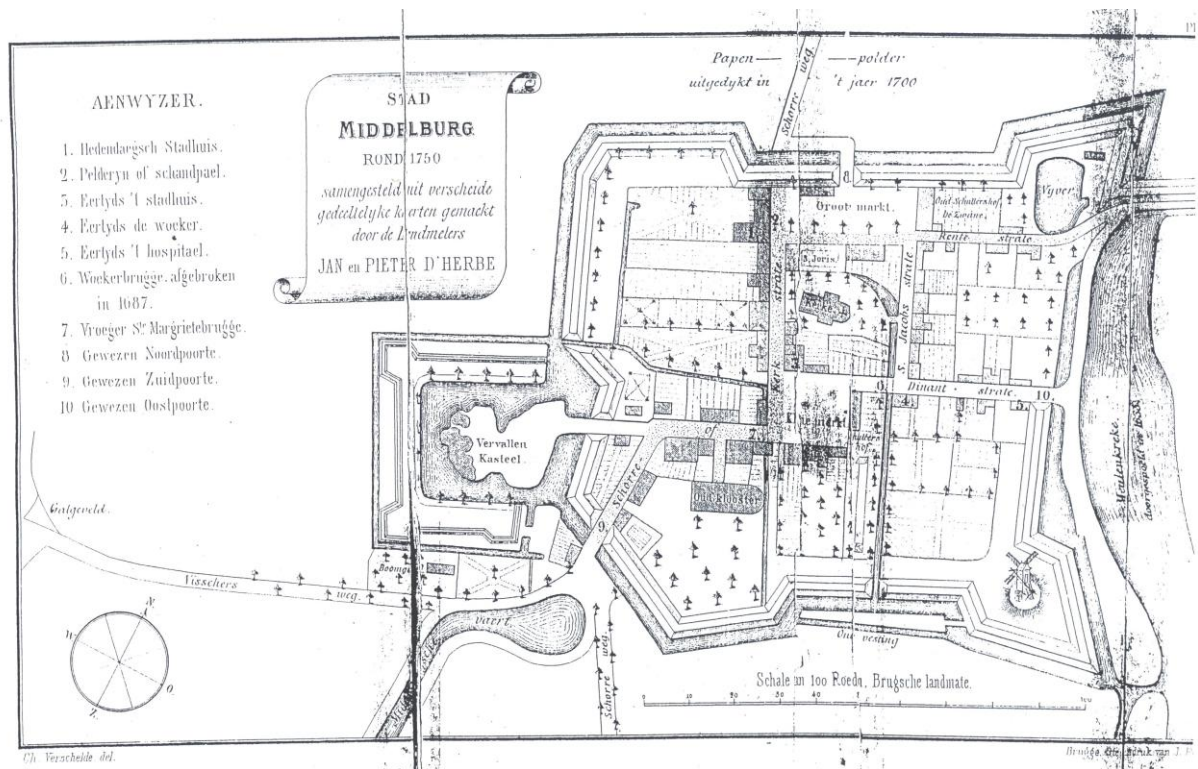


Figure 113 Map composed by Karel Verschelde (1867) on the basis of the maps of Jan and Pieter d'Herbe.

The primitive land register (1807-1836, Figure 114) confirms the plan by Jan and Pieter d'Herbe and shows two entrances to the block (parcel 174 and an opening in the buildings on parcel 187). In the centre of this block, two constructions are situated, one of which is an elongated building, at a right angle to the former city's canal. The same building is also visible on aerial photographs of World War I and even more recent photographs and maps.



Figure 114 Land register by Philippe-Christian Popp (1847-1879).

Concluding, an iconographical study of Middelburg's Poor Clares convent indicates that it concerns an enclosed area, with a church near the centre and others buildings in its immediate surroundings. One of the entrance gates gives out onto Middelburg's market square, while the other is situated near the current *Kloosterstraat* 16-18. A final observation is that an elongated building remained visible throughout the centuries, on the place where the oldest sources suggest the presence of the convent's church. It seems to suggest that the church continued to exist as a profane construction well into the 20th century.

5.3.2 Archaeological excavations

Both in 2006 as in 2010, excavations were conducted on the site of the Poor Clares convent. The enquiries were supplemented with building history research and a watching brief in 2007.

5.3.2.1 Structural remains

During the 2006 excavations, multiple features could be associated with the convent. For example, a piece of cellar floor was part of a building of approximately 5m wide, with an east-west orientation (Figure 115:1). The walls of this construction were almost completely broken out, and are only recognisable as a spoliation trench. Only a part of the northern side remained preserved *in situ*. A second spoliation trench is situated to the east of this cellar level and roughly directed from east to west (Figure 115:2). The feature is approximately 1m wide, indicating a robust wall, possibly part of a building or gallery, at a right angle to the city's canal.

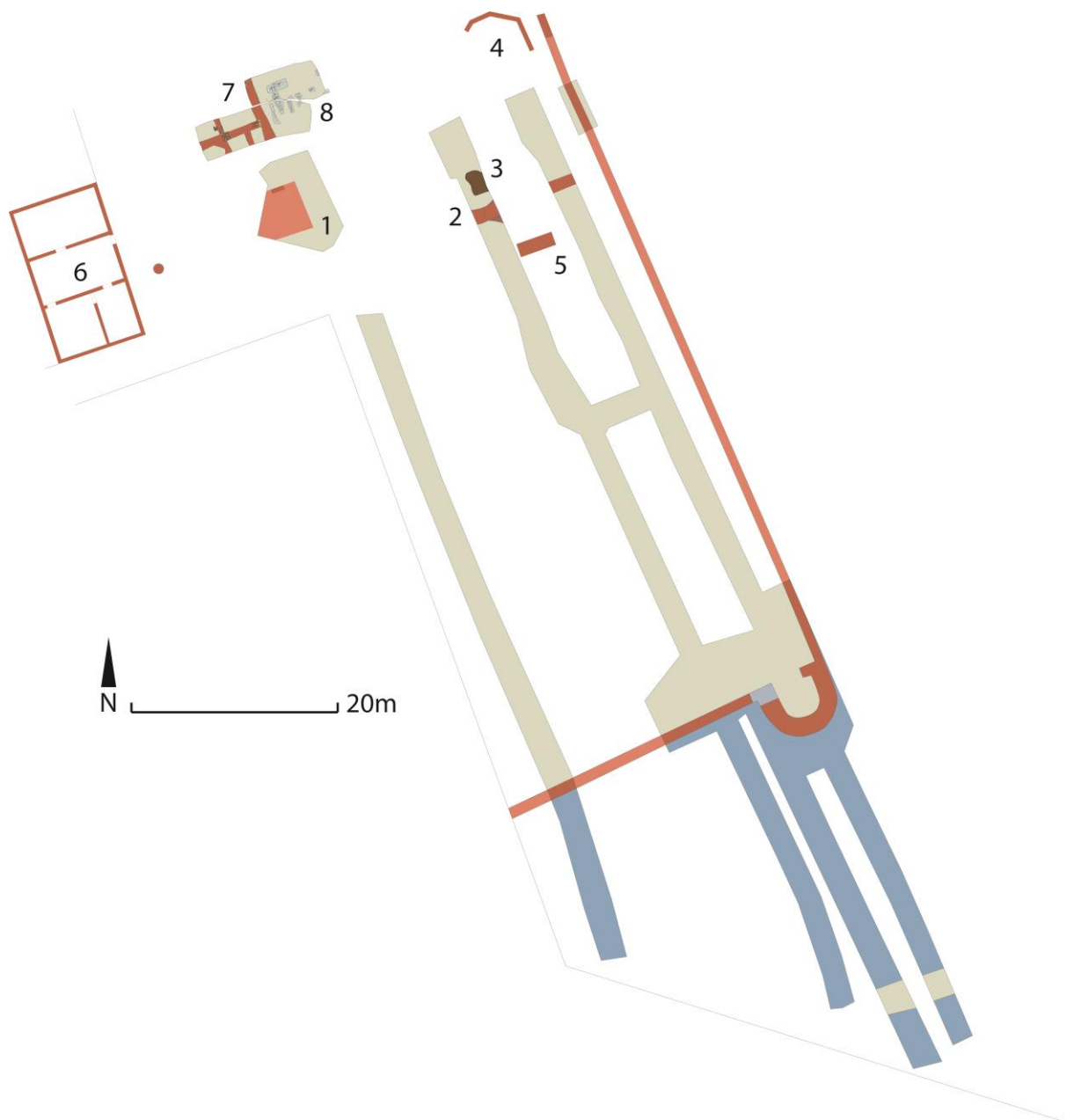


Figure 115 Composite plan of excavations and watching briefs in 2006, 2007, and 2010. Numbers refer to the text.

During the same 2006 campaign, a refuse pit was found with ceramics dating to the first half of the 16th century (Figure 115:3). As this material can nearly certainly be associated with the Poor Clares, its dating can be refined to 1519-1550 (see '5.4 Ceramics of the convent's early years').

A small-scale watching brief in 2007 revealed the walls of two structures. A first concerns the remains of a polygonal structure, situated right next to the city wall (Figure 115:4, Figure 116). This structure was built out of brickwork, approximately 50cm wide. One side runs parallel to the city wall, and subsequently diverts over a certain angle. The construction then makes another bend and, as such, has one side at a right angle to the city's canal. In a following rubble feature, the wall seems to bend back, creating something in the form of a hexagon. During the 2007 watching brief, another spoliation trench was found of a brick foundation, approximately 75cm wide, on the place where the elongated building is to be found on the primitive land register (Figure 115:5).



Figure 116 Polygonal structure, found in 2007 (photograph Wim De Clercq).

The archaeological investigations were supplemented with a research into the building history of the house on *Kloosterstraat 16* in 2007 (Figure 115:6). The study showed that the property dates back to the 15th-16th century, and currently consists of three

rooms (Pype 2007, 215). The most northern room measures 7.75 by 4.50m on the inside and has a hearth in the middle of the northern wall. The original entrance was likely situated in the room to the south of the former, in the form of a small door with round arch in the rear side (Pype 2007, 216). The most southern room was previously dated only after 1609 (Pype 2007, 215). In my opinion, the room must have been part of the building since the 16th century.

5.3.2.2 Poor Clares or Eighty Years' War victims?

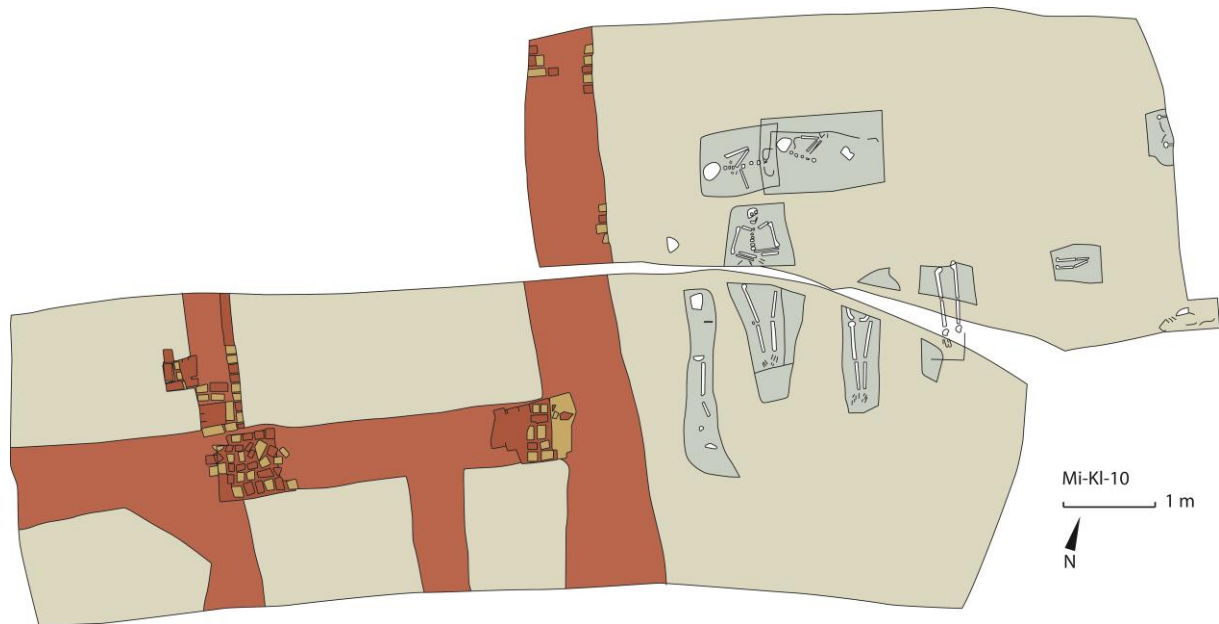


Figure 117 Simplified plan of the 2010 excavations.

Finally, in 2010, two trenches were laid out to the north of the 2006 excavations (Figure 117). Different spoliation trenches were revealed (Figure 115:7), relics of buildings with the same orientation as the aforementioned cellar floor. The constructions had broad foundations, to which some smaller dividing walls were linked (Ameels 2014, 8). To the east of these spoliation features, the remains were found of at least 15 individuals, of which four are (young) children (Figure 115:8)(Palmer 2015). Four individuals were buried parallel to the nearest spoliation trench (north-south direction), while another five were buried in an east-west orientation. The orientation of the remaining individuals remains unclear. The individuals with an east-west orientation were likely lined up with the backyards of the buildings on the *Kloosterstraat* or a wall that ran parallel to this street. This fact, together with a lack of spoliation features in this zone, suggests that the individuals were buried in an open area or large building. As will be substantiated further below, it probably concerns the former of these two possibilities. Only one individual was completely preserved, as the burials were cut by more recent refuse pits, dating to the 17th and 18th centuries.



Figure 118 The upper body of the best preserved individual [10/MIKL/76], an old adult female (Ameels 2014, 10, fig. 10).

How should this graveyard be interpreted? A physical-anthropological study on this bone material (Palmer 2015) showed that the burials represent a highly-varied population: children, women and men of different ages. It is thus clear that we do not deal with an area that is exclusively reserved for Poor Clares. Does it then concern a burial ground for both the clergy and laity, or are there solely profane inhumations? In the case of the latter, were these individuals buried before or after the convent's destruction in 1604? Additional isotope study brought no further clarity as it did not evidence a distinctive, clerical diet (pers. comm. Anton Ervynck). However, radiocarbon dating of the individual [10/MIKL/76] indicates that the burial most likely ranges between 1430 and 1530 (95.4% probability)(Figure 119). If there was no graveyard to be situated here in the 15th and early 16th century, this dating means that the individual was buried here during the first years of the convent, and that the burial ground was an inherent part of the structure since its completion in 1519.

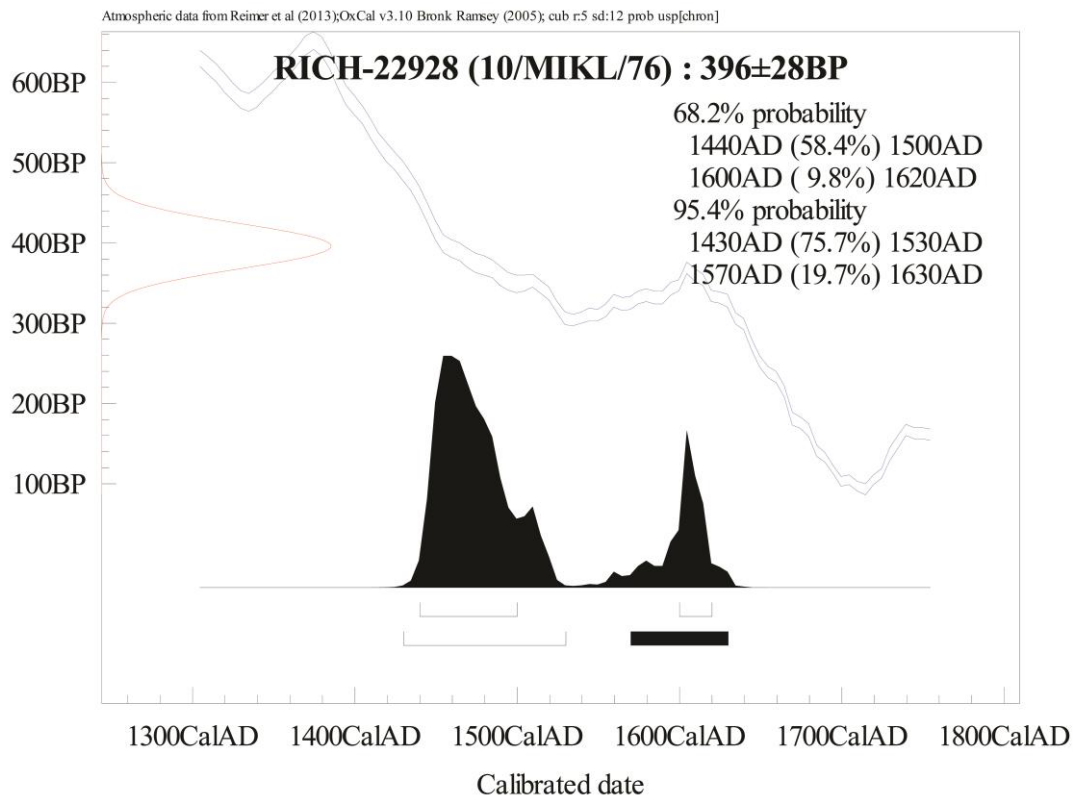


Figure 119 Radiocarbon dating on the individual [10/MIKL/76] (Mark Van Strydonck and Mathieu Boudin, Royal Institute for Cultural Heritage).

5.4 Ceramics of the convent's early years

5.4.1 Sampling strategies and taphonomy

In 2006, a refuse pit [06Mi-KL-17] was unearthed in what was likely the convent's garden, as will be argued below (see '5.5.3 Garden, cemetery and structures around the church'). The fill consisted of two layers, of which one contained an assemblage of pottery dating to the first half of the 16th century (Figure 120). As the assemblage informs us on the early years of the convent, the ceramics will be examined in further detail.

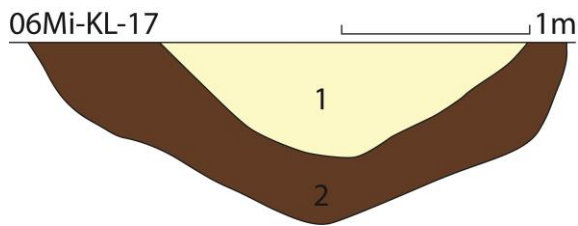


Figure 120 Section of refuse pit [06Mi-KL-17]. 1: mixed layer with lime mortar and brick rubble, 2: mixed dark brown sand with pottery, bone and ceramic building material.

5.4.2 Quantification

The quantification of this assemblage was made using sherd count and a rim-based MNI (Table 18, Table 19, and Table 20). This resulted in a total of 233 sherds, representing a minimum of 59 individuals. Brokenness (Orton, Tyers and Vince 1993, 169) is rather low, with an average of 4.0 sherds per individual. Five ceramic groups can be distinguished: redware, greyware, whiteware, tin-glazed ware and stoneware. Redware is by far the best represented category (sherd count 80.7%, MNI 96.6%). Together with the greyware (sherd count 12.5%, MNI 0.0%), it is of a local or regional origin. The other categories are imported, stoneware (sherd count 3.0%, MNI 1.7%) from the Rhineland and tin-glazed ware (sherd count 0.9%, MNI 1.7%) from the Low Countries. Because of its deviant typology, whiteware (sherd count 3.0%, MNI 0.0%) can also be considered as import. Its provenance could not exactly be determined.

Table 18 Quantification of ceramic categories.

	sherds	MNI	sherds%	MNI%	brokenness
redware	188	57	80.7	96.6	3.3
greyware	29	0	12.5	0.0	
whiteware	7	0	3.0	0.0	
tin-glazed	2	1	0.9	1.7	2.0
stoneware	7	1	3.0	1.7	7.0
total	233	59	100	100	4.0

Table 19 Quantification of ceramic forms (MNI).

	redware	greyware	whiteware	tin-glazed	stoneware
chafing dish	2				
colander	1				
plate	11				
cooking pot	11				
drinking bowl				1	
<i>drinkuit</i>	3				
flowerpot	4				
frying pan	1				
jug	2				
oil lamp	1				
porringer	2				
skillet	1				
large carinated bowl	7				
tankard					1
unknown	11				
total	57	0	0	1	1

Table 20 Quantification by probable function.

	MNI	MNI%
food preparation	13	22.0
kitchen/stock	10	16.9
tableware	20	33.9
hygiene	0	0.0
other/unknown	16	27.1
total	59	100

5.4.3 Fabrics and typology

5.4.3.1 Redware

A total of 57 redware individuals was counted and twelve forms could be distinguished: chafing dishes, a colander, plates, double-handled cooking pots, *drinkuits*, flowerpots, a frying pan, jugs, an oil lamp, porringers, a skillet and large carinated bowls.

A first one to be discussed here, is the **chafing dish**. Since its appearance in the mid-15th to first half of the 16th century, chafing dishes had a place on the bourgeois table (Ravoire 2006, 314; De Groote 2008a, 235). It is evident of a new comfort, where the consumption of hot food was no longer dependent on the distance to the kitchen (Ravoire 2006, 314). Two individuals were counted (Figure 121:1-2). They belong to a same basic type with crenellated sides. Two opposing loop handles were attached on the transition from side to base. The vessels are fully glazed on the inside. Except for the base, the exterior is also covered in a lead glaze. Contradictory to its function, no soot was found on the chafing dishes. This suggest that the embers were not placed directly into the form or that another fuel, such as candles (De Groote 2008a, 237) or even warm water (Ravoire 2006, 315), was used. Although the form is derived from metal examples, the chafing dish is mostly found in well-off social contexts, such as the Wealthy Clares abbey in Petegem (De Groote 1992, 355, fig. 24; 2008a, 235, 442), or some later examples in the Wealthy Clares quarter in Brussels, dated to the second half of the 17th century (De Poorter 1995, 127, fig. 99:8-9, 128).

The **colander** is only represented by one individual (Figure 121:3). This small type has a cylindrical, fully-glazed body and two horizontal loop handles on the transition to a slightly-convex base on three feet. It is the only form with feet in this assemblage. With a rim diameter of 13cm, the width/height ratio is 1:0.6. These small colanders have been

interpreted as tableware. However, their exact function remains unclear (De Groot 2008a, 274). A form used to drain fruits in the kitchen should also be considered a possibility. Parallels have been found in a garderobe chute in the upper court of Middelburg's castle, dating to the late 16th-early 17th century (De Clercq *et al.* 2007, 16, fig. 11:90), and in a mid-16th- to early 17th-century cesspit in Bruges (Hillewaert and Verhaeghe 1991, 212, fig. 173:8). As the pit was situated on the dividing line between two houses it is not possible to attribute the colander to a certain household (Hillewaert and Verhaeghe 1991, 207). However, the finds do reveal a certain well-being of its consumers. Moreover, both houses belonged to the chapter of the church of St. Donatus (Hillewaert and Verhaeghe 1991, 246), indicating that this form type could once more associated with a more wealthy, possibly religious context.

The **plate** was a third form recognised in this assemblage (Figure 121:4-13). A high and low variant can be distinguished. Shallow types have a width/height ratio of 1:0.1 (Figure 121:4-5), deeper types of 1:0.2 (Figure 121:8). A common characteristic is the base on thumbed feet. The inside of the plates is usually covered by white slip and lead glaze. A recurrent decoration pattern is a brown rim with green or yellow well. Only one individual (Figure 121:9) is glazed on the exterior. Plates with a small diameter (17-20cm) are best represented. However, one plate (Figure 121:7) measures 45cm and, perhaps, must rather be regarded as a dish.

Together with the plate, the **double-handled cooking pot** or *grape* is the most dominant form (Figure 121:14-23). They all have a wide rim opening, a short neck and a base with thumbed feet, which is typical of the Flemish coastal area (Verhaeghe 1997b, 23-24). *Grapes* are often characterised by the presence of both soot and lead glaze. This glaze is frequently applied rather carelessly and in most cases it only covers the rim, collar, shoulder and handle on the exterior and the rim, collar and base on the interior. Six out of the ten measurable individuals have a diameter of 17 to 21cm. Because of their fragmentary state, it is not possible to calculate the width/height ratio.

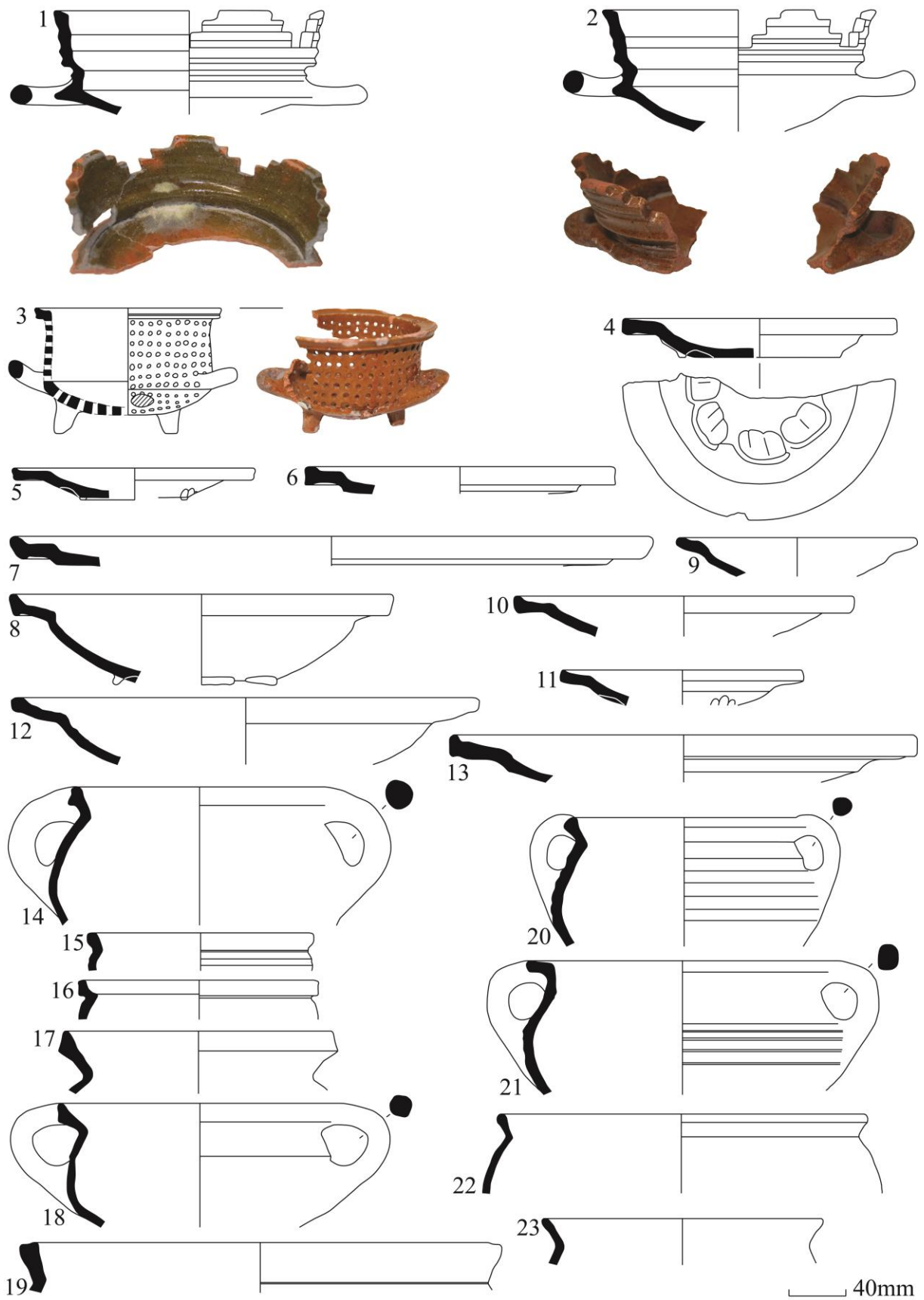


Figure 121 Local or regional redware pottery. 1-2: chafing dishes, 3: colander, 4-13: plates, 14-23: cooking pots.

What is particular, is that drinking cups, in the form of the *drinkuit*, are relatively well represented (Figure 122:7-9). This Dutch name refers to its function: a beaker on a small, unstable base that has to be emptied immediately (De Groote 2008a, 155). Only one form type was recognised: a slender, high beaker with a simple, outwardly-folded rim and small, solid base. Its slovenly design and finishing are other traits. Only the inside of the rim is covered with a colourless lead glaze. Lead splashes can occur on the rest of the body and are mainly concentrated on the inside as a result of glaze dripping off the rim. The systematic application of glaze, points out that the primary function of this vessel was indeed drinking. However, a perforation in one of the individuals indicates that these beakers could be granted a longer life and recycled for a secondary function. The rim diameters range from 6 to 7cm. One individual is archaeologically complete. A height of 12.8cm, makes its width/height ratio 1:1.8. An interesting comparison, is that 11 *drinkuits*, dating to the first quarter of the 16th century, were found in the abbey of the Wealthy Clares in Petegem (De Groote 1992, 352, fig. 22:1-4). The many *drinkuits* in Petegem should come as no surprise. The distribution of this form type suggests a link to monastic sites. Other examples of *drinkuits* found in a religious context are the ones at the Zwijveke abbey in Dendermonde, in a cesspit assemblage dated to the second half of the 15th and first half of the 16th century (Stroobants and Balthau 1991, 35, 66, fig. 17.46), the Cistercian Mariendael convent in Utrecht, the Netherlands (Renaud 1959, 203, 204, 206, fig. 7:5, 10), and the abbey at Klein-Sinaai, Stekene (De Smet 1983, 1, 2, fig. 1:19).

A sixth form is the **flowerpot** (Figure 122:4-7). Common characteristics are an outstanding rim and perforations in the base. Only one vessel is archaeologically complete (Figure 122:5). This funnel-shaped type has a flat base and a width/height ratio of 1:0.7. As is usual with flowerpots, none were covered by a lead glaze. Furthermore, one **frying pan** was counted (Figure 122:8). The form consists of a sloping, solid handle, a pouring lip and slightly-concave base on thumbbed feet. The rim is outwardly folded, slightly undercut and thickened. Its interior is fully glazed and thus obtains a red-brown to green colour. Also soot traces can be noticed. A rim diameter of 29cm and a height of 5.2cm result in a width/height ratio of 1:0.18.

Jugs are also present in this assemblage. One vessel (Figure 122:9) is characterised by an upright, flattened rim, a spur on a cylindrical collar, a loop handle connecting rim to shoulder and a base on thumbbed feet. Its interior is covered under a lime scale, indicating that it might have served as a water container. The maximum width and height are quite similar, resulting in a ratio of 1:0.9. The other jug is much less preserved (Figure 122:10). This vessel has an upright rim with ribbed collar. Both the interior and exterior are covered by a lead glaze. One individual has been determined as an **oil lamp** (Figure 122:11). Of the original vessel, only the oil container and solid stem, connecting the container to a base dish, are preserved. Next to this base dish, a handle is also missing. The oil container is covered by a colourless lead glaze on its interior and has a pouring lip. This pouring lip shows traces of soot, caused by the burning wick.

Two individuals were identified as **porringers** (Figure 122:12-13). They are characterised by their flaring body and strap-shaped rim. Both are lively decorated with lead glaze. The interior of the rim has a brown colour, whereas the rest of the body colours yellow due to a white slip layer. Only one of the vessels (Figure 122:13) has a lead glaze on the exterior. A **skillet** was also found in this assemblage (Figure 122:14). Like the frying pan, this form has a sloping, solid handle and pouring lip. The thickened rim stands upright and a sharp twist marks the transition to a slightly-concave base on thumbed feet. The interior has a colourless glaze. Furthermore, soot traces are present. Another form used for the preparation of food is the **large carinated bowl** or *teil* (Figure 122:15-18, Figure 123:1-2). The *teil* has two horizontal handles, a pouring lip and base on thumbed feet as its main characteristics. Only one vessel is archaeologically complete (Figure 123:1). A rim diameter of 35cm and a height of 13cm result in a width/height ratio of 1:0.4.

A last, rather special form that is present in this assemblage, however not included in the quantification due to a lack of rim fragments, is the **bird pot** (Figure 123:3). A part of the base and the handle, which was used to attach the pot to the wall, are preserved. A rectangular hole was cut out of the base, prior to its firing. This opening allowed for young starlings, a delicacy in early modern Flanders, to be taken from their nest (Groeneweg 1987, 155-156).

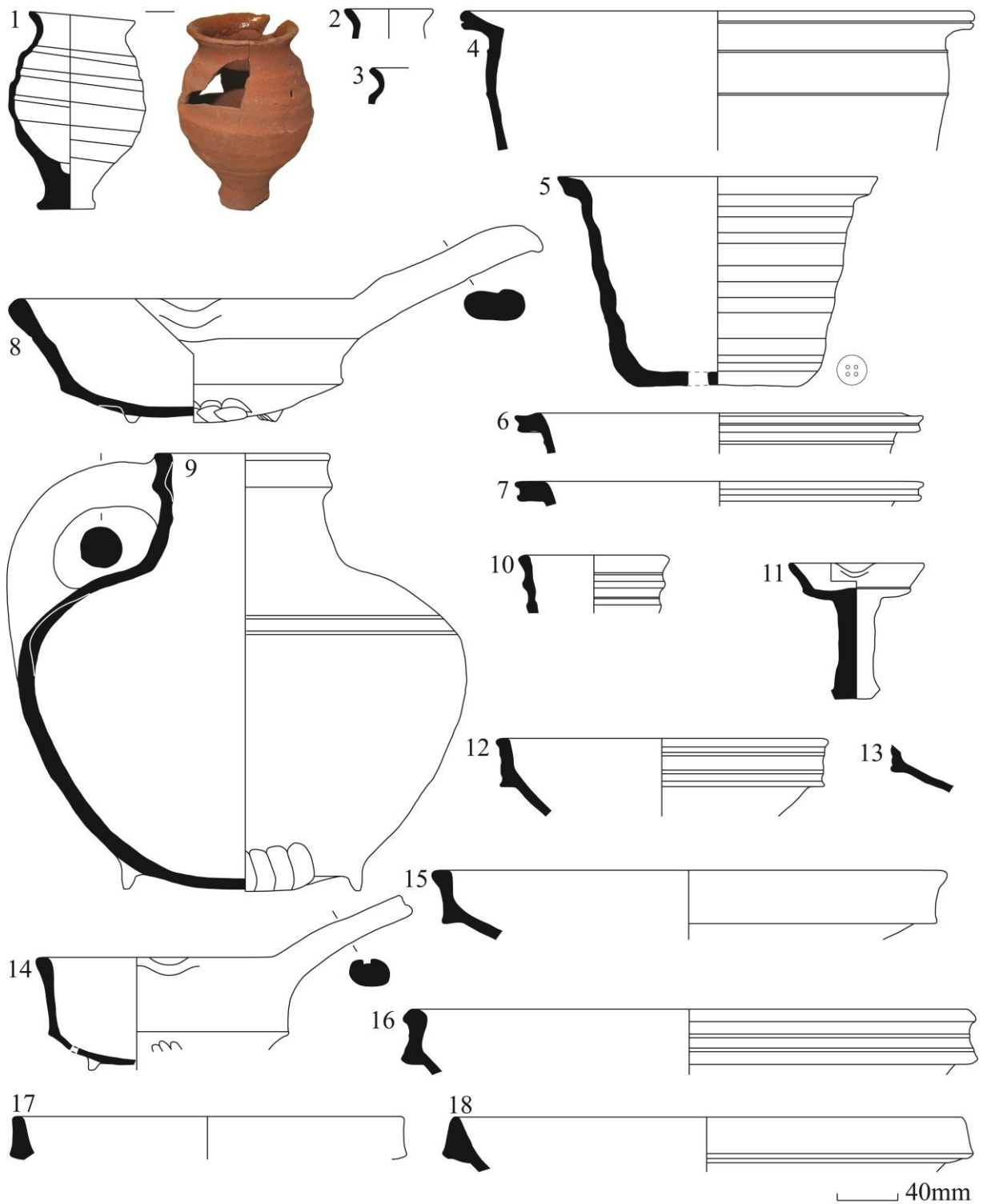


Figure 122 Local or regional redware pottery. 1-3: *drinkuits*, 4-7: flowerpots, 8: frying pan, 9-10: jugs, 11: oil lamp, 12-13: porringers, 14: skillet, 15-18: large carinated bowls.

5.4.3.2 Greyware

The greyware fabric is very similar to the redware fabric described above. Its colour ranges from grey to brown with a reduced core. Inclusions of angular quartz and iron oxides are possible. As no rim fragments were recovered, zero individuals were counted.

Twenty-six out of the 29 sherds in this assemblage belonged to a single form, a **jug** (Figure 123:4).

Although the presence of greyware in the late 16th century has been demonstrated for Middelburg's castle (see '4.2 Pottery from the garderobe chutes'), the presence of this ware type in a high-status monastic site could come as a surprise. However, quality was apparently not the primary concern in acquiring ceramics. Also in the male Benedictine Saint Saviour abbey in Ename (Callebaut 1987) poor quality cooking vessels were found in an early 16th-century cesspit (De Groot 2008b, 33).

5.4.3.3 Whiteware

Two different fabrics could be distinguished within the whiteware category. A first one is hard and rather porous. It has a fine, sandy grain and colours range from white to a light pink. Iron oxides are deposited round the quartz grains. The other fabric is less porous and has a more chalky texture. Attributing a certain provenance to these fabrics is, however, not yet possible. Once again, no whiteware individuals were counted. Five out of seven sherds were non-diagnostic and could therefore not be identified. The form determination of the other two sherds also remains uncertain. A first fragment consists of a slightly-convex base (Figure 123:5). A colourless lead glaze is present both on the in- and outside. The other sherd (Figure 123:6) has some characteristics of a bowl and, thus, could possibly be identified as such. It consists of a vertical loop handle, body fragment and base and is fully glazed with a spotted pattern of green and yellow.

5.4.3.4 Tin-glazed ware

One individual was covered in tin glaze and functioned as a **drinking bowl** (Figure 123:7). Its fabric has a fine, sandy grain and iron oxides are present. This maiolica drinking bowl has a simple, upright rim with a diameter of 8cm and a base on a footring. Baart (1986, 88) states that these drinking bowls follow the forms of German stone- and glassware. A provenance for this form type can be found in the Netherlands. Two production centres are currently known: Utrecht (Baart 1999, 125, fig. 7.1, fig. 7.8) and Bergen op Zoom (Baart 1999, 172, fig. 7.2). However, Korf (1981, 102, fig. 186) and Hurst, Neal and van Beuningen (1986, 118, fig. 54.165) also suggest a possible origin in the city of Antwerp. The decoration consists of a geometrical pattern in cobalt blue and was possibly derived from Italian examples (Baart 1986, 88). Similar patterns were found in Amsterdam, dated 1500-1550 (Baart 1986, 88) and in the Eemstein convent of Zwijndrecht (the Netherlands), dated 1500-1575 (Hurst, Neal and van Beuningen 1986, 118).

In Flanders, these bowls are mainly found in monastic contexts, such as two individuals found in the Benedictine abbey of St. Saviour in Ename, dating to the 16th-17th century, and another parallel in the Jesuit college of Aalst, also dating to that same period (De Groot 2002a, 447). In the first half of the 16th century, maiolica can be considered as a

relatively-new luxury product. The early date of this drinking bowl may thus point to a privileged access to the ceramics trade, a trend that can also be seen in other abbeys and convents of that period (e.g. De Groote 1992).

5.4.3.5 Stoneware

As is often the case, the stoneware in this assemblage is limited to pouring and drinking functions. A first and only individual is a three-handled **tankard** (Figure 123:8). It has an upright rim with thorn and a spherical body. It is typical of early 16th-century production in Raeren (Hurst, Neal and van Beuningen 1986, 198). Both the inside and outside are covered by a layer of salt glaze. Two other pieces can also be identified as **jugs**. One has a slightly-concave base (Figure 123:9), the other a base on a lobed footring (Figure 123:10). Both types co-exist in the first half of the 16th century (Groeneweg 2000, 133).

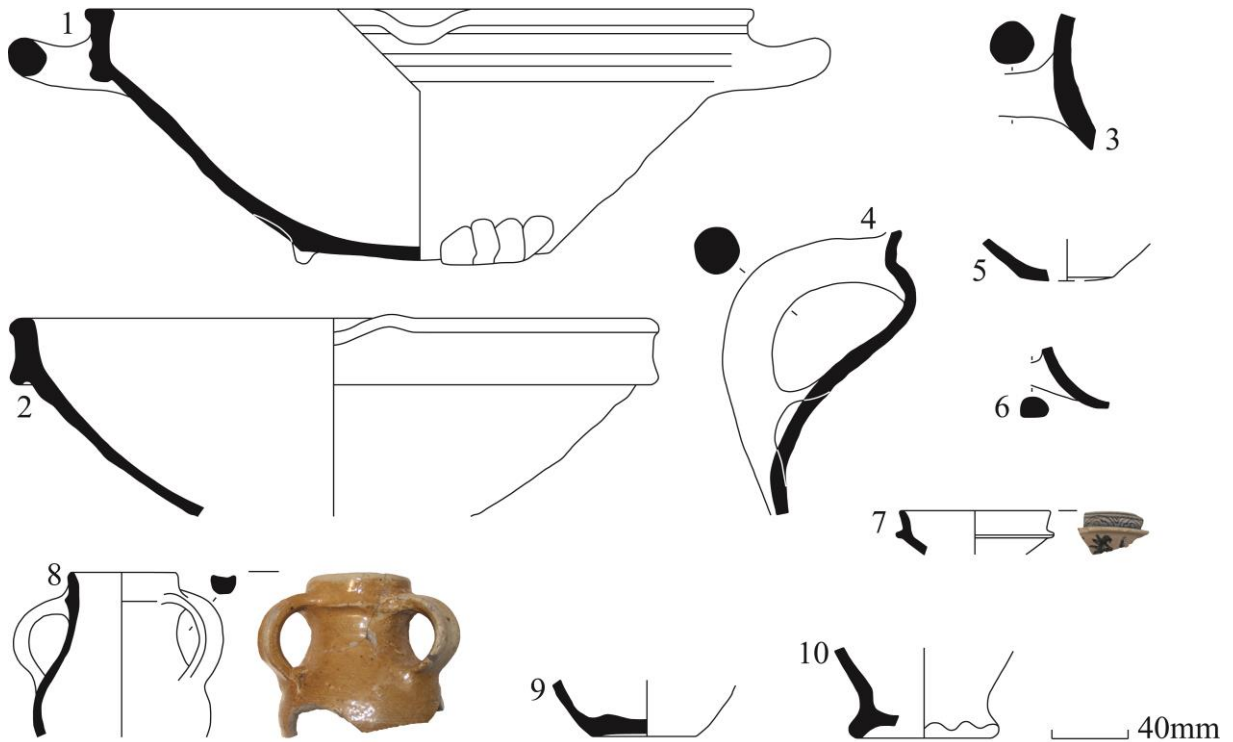


Figure 123 Local or regional redware pottery. 1-2: large carinated bowls, 3: bird pot. Local or regional greyware pottery. 4: jug. Imported whiteware pottery. 5: unknown, 6: bowl?. Low Countries maiolica. 7: drinking bowl. Rhenish stoneware. 8: tankard, 9-10: jugs.

5.4.4 Interpretation and discussion

Statements on the status of the Poor Clares, solely on the basis of ceramics, are not straightforward. Nevertheless, the finds in this small assemblage do not suggest material poverty, on the contrary. It appears that the holy vows of the Poor Clares were quickly exchanged for more worldly manners. Several forms, such as the chafing dish, only have

parallels in more well-off social groups, while the *drinkuit* refers to a profane waste of time, especially practiced in monastic contexts. Moreover, through the use and display of maiolica, a characteristic category in abbeys and convents of the first half of the 16th century, the Poor Clares seem to have actively placed themselves within a certain monastic identity.

How is this suggestion of material wealth and laic life compatible with the *requirement to give up private property and embrace religious poverty* (Evangelisti 2004, 1)? The Church's regulation of the nun's material life was aimed at *fostering the nun's spiritual detachment from the world and their perfect union with God, as well as shaping the internal hierarchy and dynamics of power, reinforcing the authority of the ecclesiastical superiors, and finally helping to balance the community's books* (Evangelisti 2004, 7). However, practice shows that nuns were *firmly embedded in a world of material goods* (Evangelisti 2004, 8-9). Indeed, Evangelisti (2004, 2, 3) observed that nuns entered the convent well-equipped and financially supported from the outside, resulting in a way of life that greatly diverged from what was theoretically expected. This gap between theory and practice does not reflect *a bunch of undisciplined nuns*, but is the result of *an entire social system in which the nuns, their families and the convent participated, each to their own advantage* (Evangelisti 2004, 17). The question of material wealth in the study of monastic assemblages should therefore be reoriented toward *the relevance of material objects to women who had professed the vow of poverty* in this peculiar social system (Evangelisti 2004, 3). Moreover, future research should also focus on the changes following the Council of Trent in 1563, enforcing strict enclosure and confirming religious poverty as one of the *primary founding principles of monastic life* (Evangelisti 2004, 4). From a historical perspective, it has been argued that enclosure and poverty remained flexible, even after the implementation of these Tridentine orders (Evangelisti 2007, 7). I believe that the conflict of the Eighty Years' War contributed to the continuation of monastic traditions, as the troubles stood in the way in the application of those founding principles. As the Poor Clares had to flee, find shelter and rebuild the convent, they remained well-connected to the outside world.

5.5 Attempt to reconstruction of the Poor Clares convent

A first step in interpreting the archaeological features on Middelburg's Poor Clares convent consists of a comparison with research on other convents and abbeys. It subsequently allows a first and preliminary attempt to a spatial and functional interpretation of the domain.

5.5.1 Comparison with other 16th-century convents

Of the many religious sites excavated since the rise of archaeology in the 19th century, Poor Clares convents are but a minority. Belgium's most large-scale excavation on such a convent is to be found in Brussels. Between 2004 and 2006, the Office of Monuments and Sites (*Directie Monumenten en Landschappen*) of Brussels-Capital Region excavated a Poor Clares convent, situated in a meander of the Senne river (Claes 2006, 33). During this archaeological enquiry, the chapel, convent buildings as well as adjacent private buildings were revealed (Claes 2006, 28). The chapel dates from the late 15th-early 16th century and had a southwest-northeast orientation. On the inside, it measured 22 by 8.5m, with walls that were 60cm wide. The walls were made up out of calcareous sandstone foundations and socle, on top of which brickwork was interlarded with stone bands. These walls were internally finished with white lime layers and black-coloured murals. In the centre of the chapel's nave, two pillar foundations were found, indicating that it had two bays. The windows on the ground floor of this two-storey chapel were of the round arch-type, while those on the first floor were finished with pointed arches. By analogy with the contemporaneous Saint-George chapel on Brussels's *Kunstberg*, the two-bayed nave could give out onto a three-bayed choir. Unfortunately, this choir fell outside the excavation limits. Finally, under the chapel floor, multiple individuals were buried in wooden coffins in the same orientation of that of the chapel (Claes 2006, 33; 2007, 27, 28). Fifty-six of these skeletons have been investigated. It concerns 30 women (29 adults, 1 child), 19 men and 3 children. The sex of 4 individuals could not be determined with certainty. With 60% of the women older than 40, the average age is remarkably high. This can probably be explained by the fact that Poor Clares did not die in childbirth (Quintelier 2009, 436).

The convent of the Poor Clares in Bruges has also been subject to archaeological research in 1998. The convent was founded in 1469 by Lodewijk van Gruuthuse and Margareta van Borsele by commission of Charles the Bold. After the inauguration in 1477, it was attributed the name Sinai. The convent was situated near the Katelijnepoort and originally measured two *gemeten* 36 *roeden* (De Witte and Hillewaert 2000, 149). In 1482 it was further expanded with another 32 *roeden*. In 1616, approximately 30 Poor Clares lived on the domain (De Witte and Hillewaert 2000, 150). The oldest archaeological features are part of a 14th-century elongated building that was incorporated into the convent and subsequently adapted. The other retrieved foundations formed living quarters organised around a quadrangle. This structure probably dates to the 17th century (De Witte and Hillewaert 2000, 152). The garden of the convent functioned as cemetery, in which all burials had an east-west orientation. Finally, the remains of a valve or pump and a water conduit were found, consisting of two wells, connected to the city moats by a leaden pipe. This ensured the water supply within the confinements of the nunnery (De Witte and Hillewaert 2000, 153). The convent in Bruges is depicted on a 1562 map by Marcus Gerards

(Figure 124). The chapel with roof turret shows great similarities with what Jacob van Deventer draws for the convent in Middelburg. Also remarkable, is the polygonal structure between the convent and the city moat. The exact interpretation of this structure remains unclear.

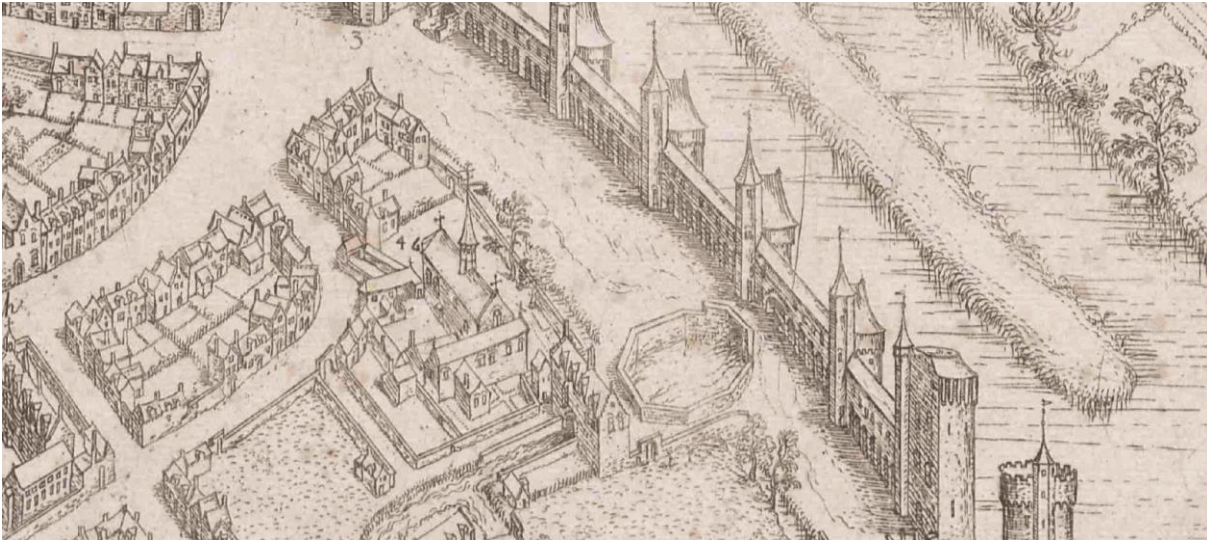


Figure 124 Maps of Marcus Gerards (1562), depicting the convent of the Poor Clares in Bruges and a polygonal structure (www.magiskaartenhuisbrugge.be).

In France, several Poor Clares convents have been excavated. Of particular importance to Middelburg are those in Lille (as Estienne Hugonet was abbess here and the convent in Middelburg had to be built after its example) and Paris.

The convent of the Poor Clares in Lille was founded in 1490-1491 (Cercy and Gardais 2006, 33). As seen for other 16th-century convents, the church is once more depicted, on a 1560 map of the city, as a simple volume with a small clock tower (Cercy and Gardais 2006, 36). Historical sources furthermore inform us that the Poor Clares slept in communal dormitories and that there are no indications of separate cells (Cercy and Gardais 2006, 47).

During the excavations, different phases of the convent's church were recorded. The first church can be dated at the end of the 15th and beginning of the 16th century. This structure measures 24.8 by 12m and has a semicircular apse, internally 5.2m wide and 6m deep. The foundations are approximately 1m wide and are built out of calcareous stone. The nave is single-bayed and is not intersected by a transept (Cercy and Gardais 2006, 51). This church is subsequently rebuilt on the same foundations and divided into three bays, using two rows of five square pillars. The middle bay is 7m wide, while those to the side measure 2m in width (Cercy and Gardais 2006, 51). Finally, in the 17th century, the church's choir is extended by 3.2m (Cercy and Gardais 2006, 52).

Of the convent's other buildings, only the 17th-century building phase was preserved (Cercy and Gardais 2006, 54). The chapter adjoins the northwestern side of the nave, while the garden is adjacent to the south-west. Burials were found in this garden, as well as in

the chapter and nave. The burials in the chapter and nave have a north-east to south-west orientation (with their heads in the south-west) and are thus aligned with the orientation of the church. Only in the garden, burials were found that were at a right angle to this orientation (Cercy and Gardais 2006, 55). Physical-anthropological research indicates that men are best represented (Cercy and Gardais 2006, 55-57). They are systematically buried in the church, while the women were divided over the church and other parts of the convent (Cercy and Gardais 2006, 57).

This convent in Lille was inspired by that of the Ave Maria in Paris, existing of a combined Poor Clares and Franciscan convent. In 1993, the church and its immediate surroundings were excavated (du Bouëtiez de Kerorguen 1996, 154). The church has rather modest dimensions and was at a right angle to the city's defences (cf. Middelburg)(du Bouëtiez de Kerorguen 1996, 155). With dimensions of 13 by 24m and a three-bayed nave, this church resembles the one in Lille (Cercy and Gardais 2006, 65). Once again, several burials were revealed, both inside and outside the church. Within this building, laymen and monks were buried, heads to the west. The Poor Clares were modestly buried outside the church, without any coffins. Moreover, the burial pits were often irregular and too little for the buried individuals. The fact that the Poor Clares were buried outside the church, would be the ultimate testimony of their ascetic life, according to the excavators (du Bouëtiez de Kerorguen 1996, 160-162).

In the discussion of Middelburg's ceramic material, many references were made to the abbey of the Wealthy Clares in Petegem. The abbey is situated on the bank of an old Scheldt meander. On a gouache from the Albums of the duke de Croÿ (1608-1609), it is depicted as a loose structure of c. fifteen buildings, one of which is the church with bell tower (damaged due to the religious troubles of the Eighty Years' War). These buildings were enclosed by a stone wall, opened toward the Scheldt river (De Groote 1992, 337).

In 1990, a rescue excavation was performed on the periphery of this domain (De Groote 1992, 335). A large refuse pit was found with, next to the aforementioned chafing dishes and *drinkuits*, a remarkable amount of maiolica from Spain, Italy and the Low Countries, to be dated in the late 15th and early 16th centuries (De Groote 2002b, 443).

On a large number of the vessels, scratch marks were applied. Similar scratch marks were also found on redware ceramics of the Wealthy Clares convent in Gentbrugge (Steurbaut 2003, 3). As with Petegem, this domain was situated in a meander of the Scheldt. The *Panoramisch Zicht op Gent* (1534) informs us of its condition in the 16th century (Figure 125). A rectangular enclosure is depicted in which a single-bayed church with roof turret and semicircular apse is to be found, together with a loose collection of other buildings, such as a refectory, infirmary, dormitories, and a guest room. A pond was connected to the Scheldt and ensured the provision of water within the premises (Steurbaut 2003, 2; Charles *et al.* 2008, 213).



Figure 125 The Wealthy Clares convent of Gentbrugge, depicted on the *Panoramisch Zicht op Gent*, dated 1534 (Steurbaut 2003, 1).

Scratch marks are frequently found in monastic contexts. They generally consist of one or two characters in roman or gothic writing and refer, in some cases, to a real or monastic name. A large amount, however, makes reference to a religious figure, such as ‘MA’ for Maria, ‘I’ for Jesus, ‘IC’ for Jesus Christ, ‘IM’ for Jesus and Maria and ‘F’ for Saint Francis (the Sisters of Saint Clare followed his rule)(De Groote 2008b, 34). The presence of these scratch marks can be interpreted in different ways. There is a possible link to the organisation of the convent or abbey, of which the buildings consist of individual cells (De Groote 2008b, 34). Food would then be consumed individually, in these cells. In case of a common refectory, the scratch marks would allow individual meals to arrive at the right person. This would indicate that ladies with a high status had certain prerogatives. It is still questionable whether these scratch marks truly represent ownership, or merely the right to use these vessels. Monastic rules exclude personal property, but are flexible with the passage of time (von Thier 1995, 180-181; De Groote 2008b, 35). That ceramics are

found with two different marks, made by multiple hands, argues in favour of this use right (De Groote 2008b, 35, 39). The presence of scratch marks can furthermore be explained by a difference in the pots used by sisters and other people inhabiting the monastery, or by the fact that pots were tied up to certain places. In this later case, marks bearing 'I' or 'F' could respectively refer to *infirmierie* (hospital) or *four* (bakery), rather than recalling religious figures (Ravoire 2006, 318; De Groote 2016, 28). Whatever the explanation, the presence of scratch marks with the Wealthy Clares of Petegem and Gentbrugge and the provisional lack of such marks with Poor Clares, might well reflect a difference between both orders in the organisation of monastic life.

Although there are certain differences, Poor Clares convents compare relatively well with each other. In the 16th century, they often consist of a loose gathering of buildings, not directly accessible from the street. It is mostly from the late 16th-17th century onward that the buildings are structured around a quadrangle. These convents are often to be found in the immediate proximity of water, guaranteeing water supply within the seclusion of the domain. Moreover, Poor Clares convents are consistently positioned on the outskirts of a city, close to the walls or, in case of Brussels, outside the first circumvallation. The church is built with a stone socle and brickwork, and always has a simple volume with a length between 23-25m and a width between 10-13m. The apse is polygonal or semicircular and a transept is never present. Finally, the church's roof is always equipped with a roof turret. Both inside and outside of the church, individuals could be buried. Within the church, the burials are aligned with the orientation of the building. Only the graves on the exterior were sometimes dug at a right angle to this church.

5.5.2 Position of the church

Because of their urban location, 16th-century convents do not often respond to a presupposed ideal plan. Nevertheless, some basic principles were applied. The comparison with historical maps, the archaeological research in Middelburg and excavations on other Poor Clares convents allow to make some possible reconstructions of the domain in Middelburg. Crucial in this reconstruction is the position of the convent's church. Cartographical sources consistently show this building at a right angle to the canal and central-northerly in the domain. If this is indeed the case, there are multiple possible locations for Middelburg's convent church. The two most plausible are discussed here.

By analogy with the map of Jan and Pieter d'Herbe, the church could be adjacent to the backyards of the buildings on the *Kloosterstraat* (near *Bladelinplein*). In this case, the polygonal structure retrieved in 2007 could be part of the choir. Several elements plead against this location. When considering the convents of Brussels, Paris and Lille, a great

regularity can be observed in the construction of chapels and churches, in form, technique and dimensions. As mentioned above, the length ranges between 23 and 25m, the width between 10 and 13m. When such a volume is projected onto this first possible location, the church would partly overlap with the trenches made in 2006 and 2010. However, during these excavations, no remnants of a church were registered. It is possible that the church in Middelburg diverged from the norm, with a length shorter than 20m. However, Hugonet had no reason to do so, since there were no limitations in terms of money or available lands. Moreover, the burials, based on their different orientations and demographic composition, are almost certainly situated in a garden, and not in a church or a building that is connected with it. By analogy with Brussels and Lille, the walls of the choir should have stone foundations, instead of the brickwork retrieved during the watching brief of 2007. However, in this case, deviation from the norm is a certain possibility, as with Middelburg's castle, a stone socle was based on a brick foundation. Finally, it can be argued that visitors using the entrance along the canal, would immediately arrive at the church's choir. However, access to the church via the choir was not possible for parishioners. The choir was reserved for the Poor Clares, who could enter directly using a gallery that stood in connection to their residence (Schoolmeesters 1886, 65).

If the church is indeed to be found on a different location, the elongated building, as still depicted on the primitive land register and aerial photographs of the first half of the 20th century, is a (very) plausible candidate (Figure 126).

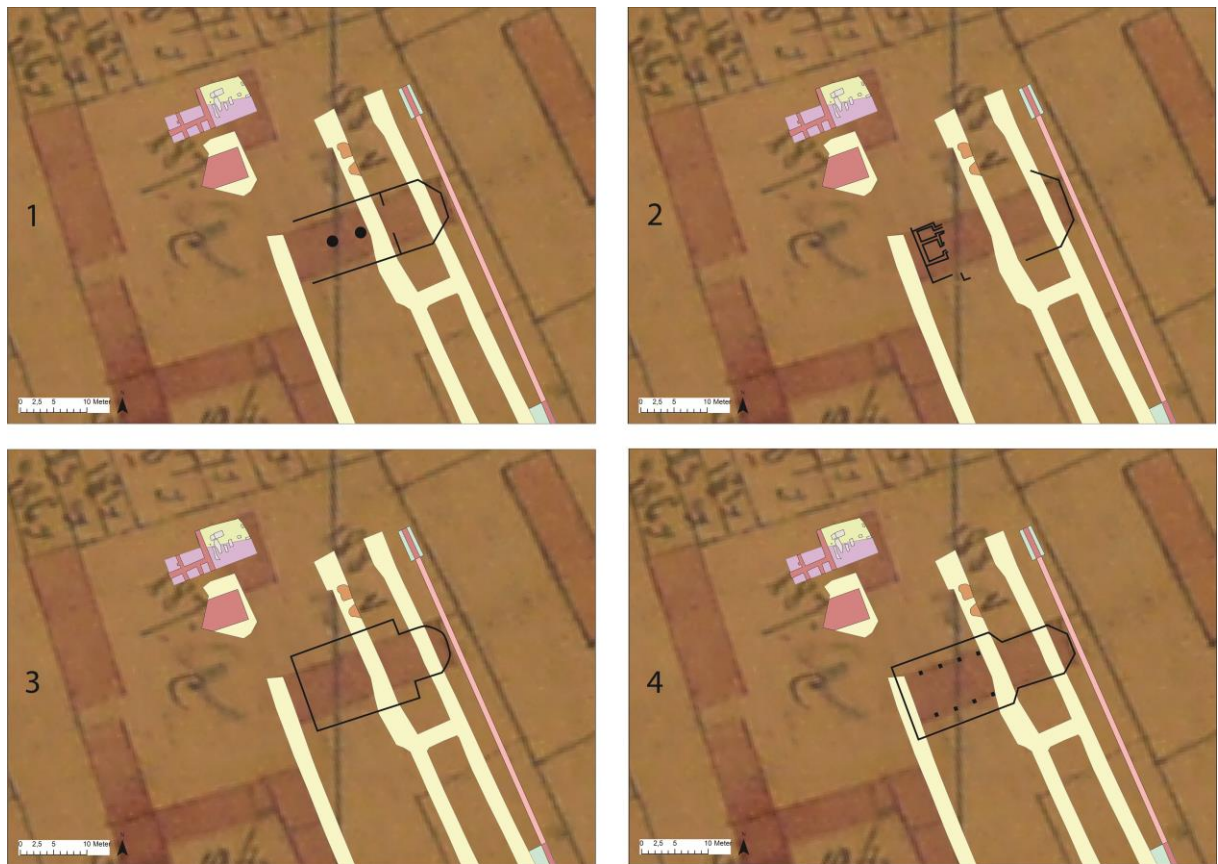


Figure 126 Churches of Brussels (1: late 15th-early 16th century), Paris (2: 15th-18th century) and Lille (3: end 15th-beginning 16th century and 4: 17th century) projected onto the elongated building visible on the primitive land register of Middelburg.

With a length of 25m, this building responds to the expected length as attested with other churches of the convents mentioned above. A width of 7m, however, is too small for an entire church. Remarkable, is that those 7m correspond exactly with the middle bay of the church in Lille. Were the side bays dismantled on an undefined point in time, and was only the nave preserved until the 20th century? The spoliation trench retrieved in 2007, with a width of c. 75cm, suggests the foundation of a large building, of which it possibly was an interior wall. It would explain why it was built in brick, and not in stone, unless, as mentioned above, the norm was deviated from. There are indications of a stone socle and intensive use of stone in the construction of the church. During the 2006 excavation, considerable amounts of calcareous sandstone rubble were registered in the upper layers of this zone. That the church was not recognised in the 2006 trenches could be explained by the fact that these were not profound enough, as a tree and stable previously stood on this location. Furthermore, this elongated structure was thoroughly broken out in the 20th century. Nevertheless, additional augering indicated the presence of a structure of the expected dimensions at this very location. Concluding, it seems plausible that the church can be located on this very location, and that the structure functioned well into the 20th century, as a profane construction, and likely after multiple alterations (Figure 127:11).

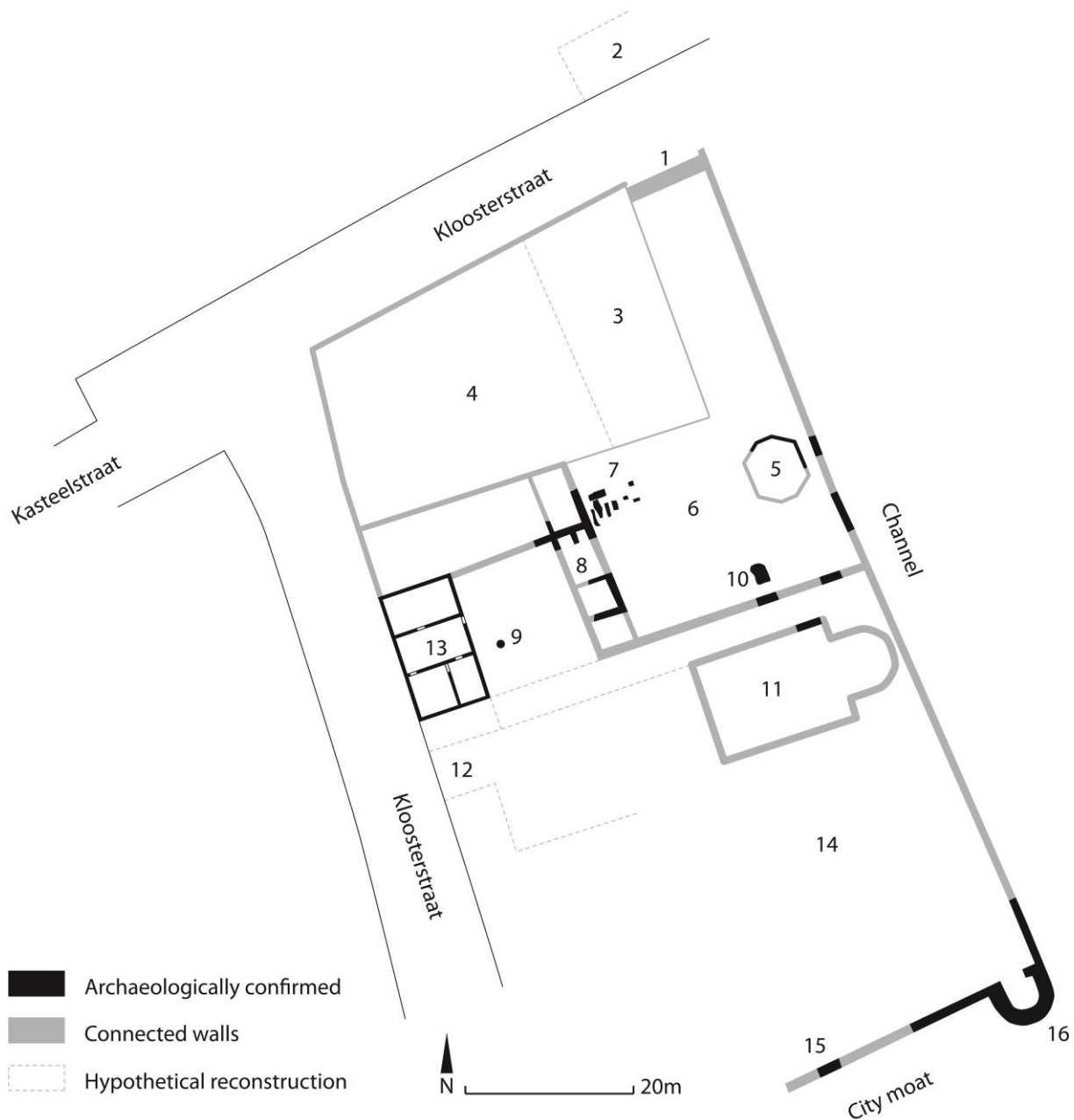


Figure 127 Hypothetical reconstruction of the convent domain. 1: entrance gate, 2: residence for non-Poor Clares, 3: residence of the confessor, 4: outbuildings, 5: polygonal structure, 6: garden, 7: cemetery, 8: convent buildings, 9: well, 10: refuse pit, 11: church, 12: western entrance, 13: current house *Kloosterstraat* 16, 14: orchard/vegetable garden, 15: city wall and 16: city tower.

5.5.3 Garden, cemetery and structures around the church

To the north of the presumed church, an enigmatic polygonal structure was found (Figure 127:5). How does this fit within the reconstruction of the Poor Clares convent? A first explanation lies with the water supply. As we have seen for the Poor Clares in Bruges and Gentbrugge, water played an important role within the seclusion of convent life. The structure could thus be a sort of basin, pond or fountain. In the immediate vicinity of the

canal, it allowed the Poor Clares access to water, without having to go outside the enclosure. A second possible explanation consists of a *hortus conclusus*, an enclosed garden responding to the need of introspection and, at the same time, a reference to Virgin Mary. These gardens often take on a polygonal form, or are furnished with hexagonal tables or fountains. When entering through the main gate, one first had to pass this structure, before reaching the garden or cemetery.

The exact location of the church and the function of the polygonal structure are still debatable. The interpretation of other zones and structures is, however, more straightforward. The great entrance to the domain was probably situated next to the canal (Figure 127:1) and gave onto the garden (Figure 127:6), which simultaneously functioned as cemetery (Figure 127:7). The burials of men and children indicate that this garden was not merely reserved for the Poor Clares. It should thus rather be considered as a semipublic space. Moreover, this garden also sporadically served to dispose of waste, as shown by the refuse pit (Figure 127:10). The wall to the south of this pit probably marks the southern limit of this garden. The width of the spoliation trench indicates that this wall was not a mere enclosure, but rather part of a building (e.g. the chapter) or the gallery, which allowed the Clares direct access to the choir of the church. The area to the south of the block was possibly organised as a vegetable garden or orchard (Figure 127:14), as the archaeological excavations did not reveal any features of occupation, suggested by the map of Jacob van Deventer. Such an orchard is depicted on the map by Jan and Pieter d'Herbe, and lived on until the 19th century, when the domain is property of Pierre d'Alcantara Charles Marie d'Arenberg. His orchard probably goes back to a 16th-century predecessor.

5.5.4 Other buildings

The remaining buildings were situated to the west of garden and church (Figure 127:8). The classic structure around a quadrangle had probably not yet formed. Nevertheless, the chronicle of Constance Dufour does state that buildings were organised around a garden with a well in its centre (Schoolmeesters 1886, 65). The research on the house *Kloosterstraat 16* (Figure 127:13) indicates that this building must have been part of this complex. The same is true for the still-existing well, around which the buildings were then organised (Figure 127:9). It is unknown whether this is the well in which some stragglers threw some household goods in 1604, before the raid on Middelburg (Schoolmeesters 1886, 79; Martens 2005, 305). A wall was possibly situated in line with the aforementioned gallery, dividing the convent's buildings from its western entrance. As such, the enclosure of the Poor Clares remained guaranteed. The western entrance gave out onto the portal of the church, and was thus fit for the ordinary parishioner (Figure 127:12).

The chronicle of Constance Dufour furthermore mentions the presence of an *oratorium*, *refectorium*, chapter with altar (under which several abbesses were buried) and a house for the confessor (Schoolmeesters 1886, 61, 65, 66, 67). A large part of these and other outbuildings could possibly be situated in the northern part of the area (Figure 127:4). The map of 1605-1609 (Figure 111) namely shows the enclosure of the convent adjacent to the *Kloosterstraat*. The 15th-century occupation (or what remained standing after the 1488 devastations) was possibly incorporated into the convent domain and put into new use. This hypothesis is in correspondence with the two *gemeten* land which Hugonet gifted the Poor Clares. The surface of the block without this 15th-century occupation is much smaller than these two *gemeten*. The chronicle of Constance Dufour reinforces this hypothesis. The house of the confessor is situated on the corner with the main entrance gate (Figure 127:3) and the *Kloosterstraat*. Finally, across the street, a house was reserved for those doing errands for the Poor Clares (Figure 127:2)(Schoolmeesters 1886, 65).

5.6 Conclusion

Concluding, a multidisciplinary approach (combining history, iconography and physical anthropology with small-scale excavations and augerings) allowed a first interpretation of the Poor Clares convent at Middelburg. In this reconstruction, an assemblage was recovered from what is believed to be the nunnery's garden. The ceramics found in this assemblage gave an insight into the convent's early years, in which holy vows were apparently quickly replaced by more worldly manners. Although Poor Clares adhered to a contemplative lifestyle, their material culture indicated that they were not detached from the everyday world, on the contrary. No indications were found of material poverty, while a profane waste of time seems to have had its place next to prayer. In the use of these objects, the Poor Clares at Middelburg inscribed themselves in an already-existing monastic tradition, in which material culture functioned as a way to take up a position within the secluded field that is the convent. Future research on the convent's material culture, in case of new excavations, holds much promise as to the question whether these monastic traditions were continued in the later 16th century, in spite of the strict founding principles of the Council of Trent. In anticipation of any further excavations, the interpretation of the geophysics and additional coring should allow to further supplement the reconstruction made.

Chapter 6 Everyday life during the Siege of Ostend (1601-1604): Ceramics at the Spanish Saint-Isabella fort

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6.1 Introduction

Between February 20 and May 4 1990, archaeologists of the NDO (National Institute for Archaeological Excavations - *Nationale Dienst voor Opgravingen*) and the Office of Monuments and Sites (*Bestuur Monumenten en Landschappen*) conducted a rescue excavation at the former site of the Saint-Isabella fort in Ostend, a Flemish harbour town (Figure 128). This excavation was undertaken in response to a large-scale development of the area between the Elisabethlaan and the Roerdompstraat.



Figure 128 The location of the Saint-Isabella fort on the modern-day topographical map.

The Saint-Isabella fort was one out of a chain of Spanish fortresses besieging Ostend from 1601 onward. As the fort was dismantled in 1604, it provides a snapshot of the life of the soldier in Spanish military service in the early 17th century. Although the main emphasis of the excavation was on the structural remains, a large quantity of finds were recovered (Pieters *et al.* 2004, 143). Surprisingly, except for two small reports on the archaeologically-documented structures (Van Eenhooge 1991; Pieters *et al.* 2004), the excavated material was never fully processed. This is by no means a criticism of the excavators. Given the status of early modern archaeology in Flanders (Courtney 2009; Herremans and De Clercq 2013; Poulain and De Clercq 2015a), certainly back in 1990, and the difficult circumstances under which the site was excavated, they deserve all credit.

This study can thus be regarded as a revaluation of an ‘old’ rescue excavation and presents the first in-depth analysis of the material everyday life at the Saint-Isabella fort based on the study of the ceramics. The objectives are threefold. A first aim is to give an overview of the ceramics consumed in early 17th-century Ostend, hence providing a basis for future pottery research in the region. A second objective is situated at a site level and seeks a renewed understanding of the excavated brick structures (e.g. barracks). It will be examined whether the distribution of ceramic categories and forms at the site allows a reinterpretation of the functions formerly associated with these buildings. A third goal lies with a better insight into the lives of the soldiers inhabiting these structures. What do ceramics tell about a soldier's dietary practice? Moreover, can evidence be found of a specific military material culture and, in case, how do the finds function in the construction of a military group identity? A final question lies with the women and children accompanying these soldiers. Are they reflected in the archaeological record and, if so, how?

A study of the material culture at the Saint-Isabella fort is not only relevant to our own history of the religious wars but also has a broader significance. All major powers in early modern Europe faced each other, directly or indirectly, during Ostend's siege. Its international character makes that the material lifeways of this war were widely distributed to other contemporaneous conflicts when the soldiers involved in the siege returned home. This is particularly true of the English Civil War (1642-1651), given that many soldiers started their military careers in the Low Countries and in Ostend in particular. As such, this study contributes to the wider debate on material culture, everyday life and the formation of group identity in early modern conflicts.

6.2 The Siege of Ostend

In the late 16th century, Ostend functioned as a 2-square-kilometre stronghold of the Dutch Republic within the Spanish Netherlands. Starting from this enclave, freebooters paralysed everyday life in the county of Flanders. Moreover, the regular payment of financial contributions to Ostend made that many communities were faced with high costs (Thomas 2004a, 15; Piceu 2008, 13, 139). The Flemish cities had been pleading for military action against Ostend for many years. When the archdukes made their Joyous Entries into these cities in 1600, *tableaux vivants* were shown of a crippled Flemish maiden, hindered in her movements by an arrow, or of the Flemish Lion with a thorn in its paw (Thomas 2004a, 15; Piceu 2008, 65).

Archduke Albrecht VII eventually besieged the city in 1601, in the hope to relieve Ostend of the troops stationed there. The garrison in Ostend counted soldiers from many different regions and with a variety of origins, such as Dutch, Germans, French, Walloons, Frisians, Scots and English (Lombaerde 2004, 64, table 2). The latter were under the command of the general Francis Vere and counted approximately three thousand men (Lombaerde 2004, 64). Soldiers were quartered in wooden barracks, comprising of six components. A first was reserved for the commander or captain. The three middle units served as sleeping quarters. Each unit had ten bed boxes of 1.3 by 2 metres, housing 20 men, two for each bed. In the middle of each room was a fireplace with smoke hole. Finally, the two rooms at the end were intended for two sutlers, camp followers providing foodstuffs and other necessities for the soldiers (Lombaerde 2004, 64, scheme 1; 69).

The siege eventually lasted until 1604, resulting in a Spanish victory. Because of the duration (1172 days) and the many casualties (estimations range from 30,000 to 100,000), it was quickly called the 'New Troy'. That it took over three years for the city to surrender (instead of days, weeks or exceptionally months) is often blamed on Albrecht's military ignorance. However, several other factors also played their part. Around 1600, Ostend was

one of the best defended cities in Europe, with a double belt of bastions and ravelins, in turn surrounded by wet ditches, creeks and polders too swampy to allow any attack. Moreover, the sea water regularly destroyed the Spanish fortifications. As a final element, Ostend could not entirely be cut off from the outside world. The dominance of the Dutch fleet ensured regular shipments from the Republic to the Ostend harbour (Thomas 2004a, 7-9).

Like the troops in Ostend, the royal Spanish army also had a multiregional character, comprising of Spanish, Italian, Walloon, Burgundian and German troops. To avoid any conflicts, the regiments were composed on the basis of nationality. The composition and origin of the troops at the Saint-Isabella fort remains, unfortunately, unspecified. The pay of these soldiers was lower than an unskilled labourer. However, as soldiers were paid all year round, they were of similar wealth (Rooms 2003, 270; 2004, 73). Unlike the city of Ostend, the villages in the hinterland were responsible for provisioning these troops. As is clear from the many complaints, this was a heavy burden to bear (Piceu 2008, 193).

Albrecht's siege consisted of a double chain of fortresses. The inner line was composed of four forts, of which the Saint-Isabella fort is one, and some smaller redoubts, interconnected through waterways, roads and dikes (Lombaerde 1999, 98; 2004, 56; Piceu 2008, 193). The Saint-Isabella fort was strategically situated between the Stynckleet, a subsidiary of the Ieperleet and a brook running alongside the former hamlet of Saint Catharina. These waterways ensured provisions while at the same time offering additional defence. The works on this fort only started after August 15, 1599 when the fieldwork *De Grooten Dorst* (meaning The Big Thirst) was conquered on the Dutch (Verbanck 1978, F12; Lombaerde 1999, 98). The nearby *molenmotte* (mill motte) provided an excellent vantage point for the Spanish army (Lombaerde 1999, 98). During the first month of construction, Charles Heyndrickx, appointed as steward, spent 12,000 guilders on wood, wicker and straw. Then, on August 23, a delegation of the Four Members of Flanders and clergymen observed that the works on the fort made good progress (Piceu 2008, 191).



Figure 129 Plan of Ostend and its surroundings, Anonymous 1600 (the south is facing up – Royal Library of Belgium, record 1069788).

The Saint-Isabella fort is depicted on myriad contemporaneous maps, with the anonymous plan of 1600 as one of the most detailed accounts of Ostend and its surroundings at the eve of the siege (Figure 129). These maps give an initial idea of the design of the fort. Almost constantly, a square-shaped fort is drawn, with four bastions on its corners and a wet moat surrounding the earthen ramparts. The structures on the inner courtyard are always displayed in an ordered pattern, as can be seen in Figure 130.

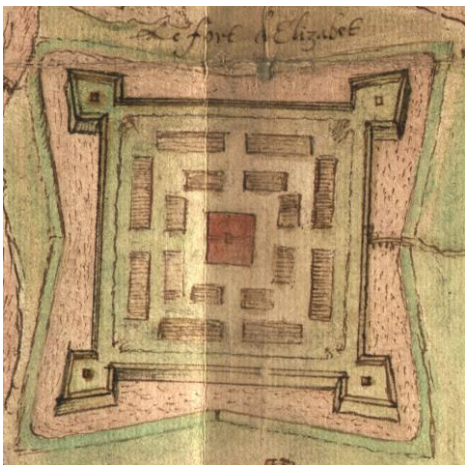


Figure 130 Detail of Figure 129, showing the regular outlay of buildings in the Saint-Isabella fort (the south is facing up).

6.3 Excavating the Saint-Isabella fort

The Siege of Ostend is reflected on various sites in the city itself (see '1.4.2.4 Sites of conflict'). However, the archaeology of this siege outside of the city walls is less well understood. Other than the Saint-Isabella fort, only the Saint-Clara fort (Stuiverstraat, Ostend) has been partially excavated. A small note (Hollevoet 1987) mentions that no structures were recorded, only a rubble layer with a limited amount of ceramics, of which one vessel was a maiolica *albarello* (ointment jar). This lack of research makes a better comprehension of the Saint-Isabella fort all the more important.

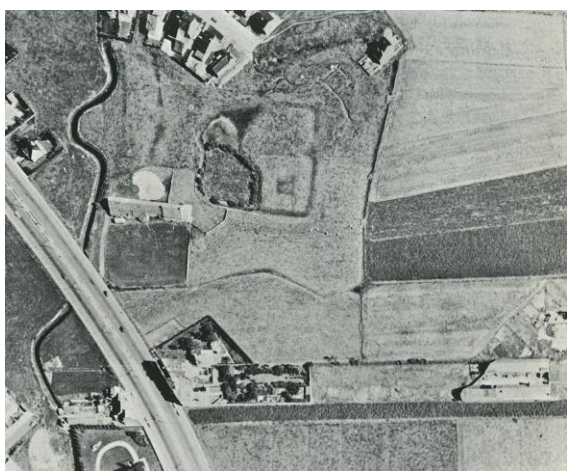


Figure 131 Aerial photograph of the Saint-Isabella fort, presumably dating from the 1970s (the north is in the lower left corner)(Verbanck 1978, s.n.).

An aerial photograph (Figure 131), presumably from the 1970s, confirms the above-mentioned maps (Figure 129 and Figure 130) in that the fort is square-shaped with the bastions aligned to the cardinal points, sides of approximately 115 metres and a moat, measuring 15 metres across, surrounding these fortifications (Pieters *et al.* 2004, 142). At the same time, the photo shows evidence of the recuperation of the southern bastion during World War I, when the German army installed their Tirpitz battery there, consisting of four canons directed toward the sea and the Yser front. The earth needed for the expansion of this southern bastion was taken from parts of the courtyard, somewhat limiting its archaeological potential (Pieters *et al.* 2004, 142).

The excavations in 1990 started on the southern bastion. A section across this feature (trench III) showed that the 17th-century rampart was preserved at a height of 1m above the original floor level (Van Eenhooge 1991, 12-13). On the inner courtyard, a total of 12 trenches were dug, revealing the remains of at least six buildings (Figure 132). Contrary to what historical maps might suggest, a regular pattern in the layout of this military architecture could not be detected (Van Eenhooge 1991, 13; Pieters *et al.* 2004, 142).

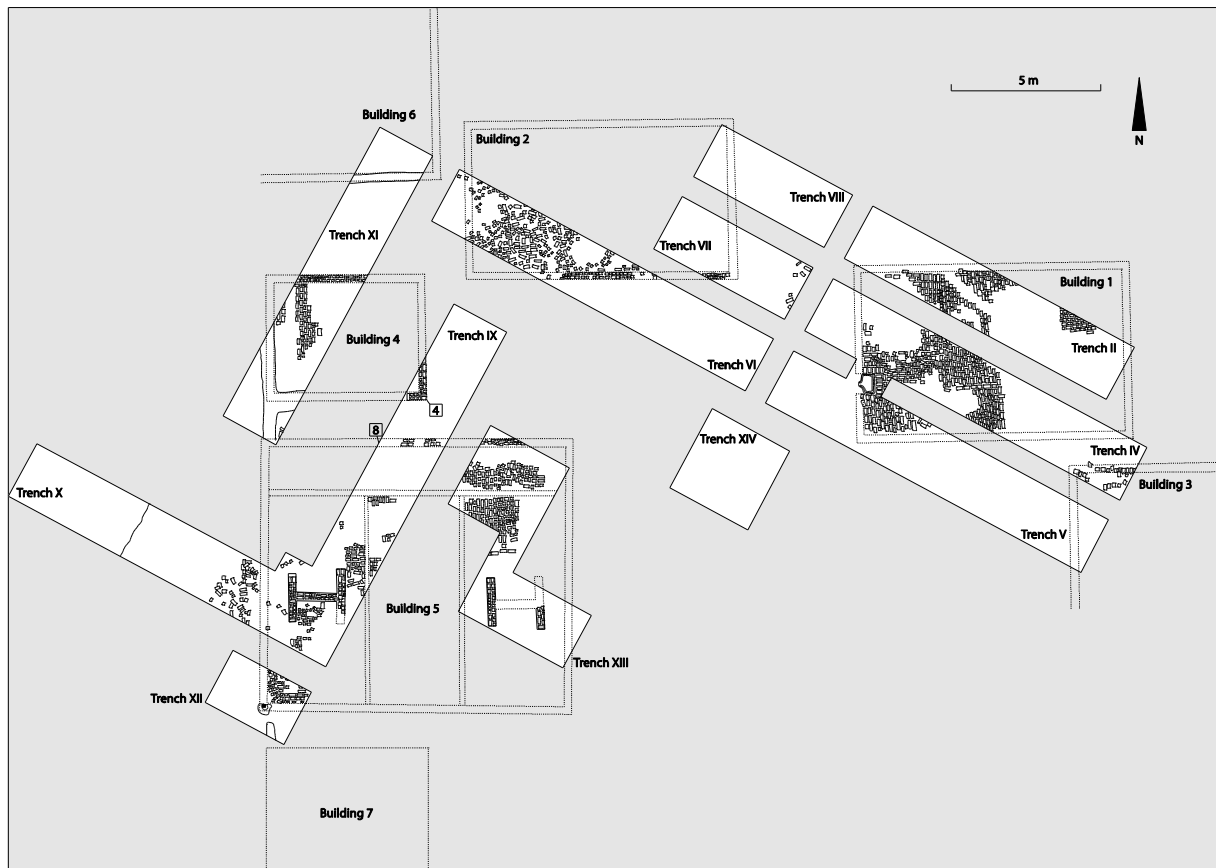


Figure 132 Plan of the 1990 excavations on the inner courtyard of the Saint-Isabella fort (adapted from Pieters *et al.* 2004, 143, fig. 7).

The buildings were built out of wood or a timber framing on a brick base. Only the chimneys and floors of these buildings were entirely made out of brick (Pieters *et al.* 2004, 142). The interpretation of most of these structures is rather problematic. Building 2, 3 and 6 were only partially dug. Their dimensions and possible functions thus remain unknown. For building 4, the dimensions are known. The structure measured 4.7 by 3.6 metres and had its entrance in the south. However, no structural indications were found as to its use (Pieters *et al.* 2004, 143). More data is available for buildings 1 and 5.

Building 1 was centrally situated in the fort. It was 5.30 metres wide, with a length of 8.5 metres. Although no fireplaces were attested, this building was interpreted as the central kitchen. The base of its southwestern wall was partly open, with a stone plate leading waste into a large pit which, according to the excavators, mainly contained cooking utensils and tableware (Figure 133)(Pieters *et al.* 2004, 142-143).



Figure 133 Building 1 ('central kitchen'): brick floor and stone plate leading to a refuse pit (courtesy of Dirk Van Eenhooge).

Building 5 was the best preserved. On the inside, it measured 9.8 by 8.5 metres and this structure most probably functioned as the soldier's quarters. The northern part consisted of a 1.4 metre wide entrance hall giving access to three dormitories, each approximately 3 metres wide. The two examined dormitories both had a centrally-positioned double hearth (Figure 134). As such, the elongated spaces were divided into two rooms.

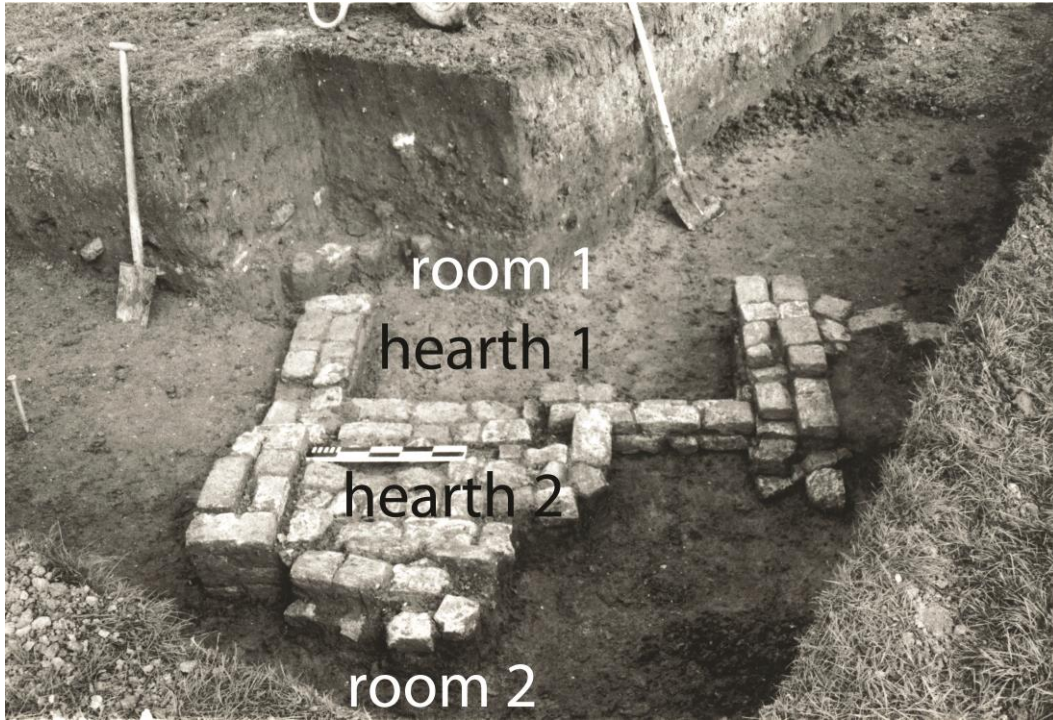


Figure 134 Building 5 ('soldier's barracks'): double hearth in the western dormitory (photo taken in direction of the north, courtesy of Dirk Van Eenhooge).

6.4 Sampling strategy and taphonomy

The stratigraphy is rather uniform across the inner courtyard (Figure 135). The structures rest on a clayey subsoil and are part of a larger destruction layer that can be associated with the dismantlement of the fort in 1604, or shortly after. This destruction layer is subsequently covered by a 40-centimetre-thick layer, most probably coming from the partially-levelled ramparts (Van Eenhooge 1991, 13). All of the ceramics were found in the destruction layer. As no individual assemblages could be distinguished, the excavators opted to collect the sherds per trench (pers. comm. Dirk Van Eenhooge).

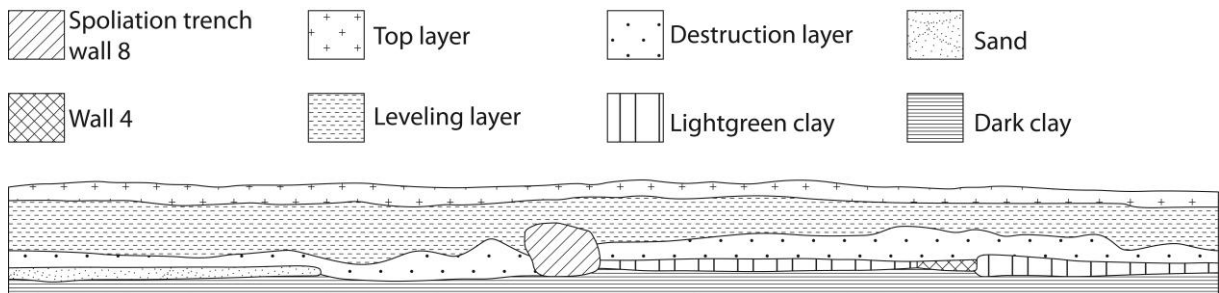


Figure 135 West profile of trench IX (walls 4 and 8 are indicated on Figure 132)(adapted from Pieters *et al.* 2004, 143, fig. 7).

6.5 Quantification

The quantification of the ceramics on this site was made using a sherd count and a rim-based MNI. This results in 9220 fragments, representing a minimum of 1144 individuals. For the entire site, brokenness (Orton, Tyers and Vince 1993, 169) is rather high (8.1), possibly resulting from the processes involved in the dismantlement of the fort. This high number explains why only few sherds could be reconstructed into complete profiles.

A total of five general ceramic categories was retained for further study (Table 21). The greyware that was present in this assemblage was identified as residual, coming from older medieval features.¹ The rather small dimensions of these greyware sherds, together with a lack of traces of pre-fortress occupation, may indicate that the greyware category derives from a medieval plough layer. Three porcelain sherds on the other hand date after the siege of Ostend. Their decoration seems typical of late 17th- or 18th-century products (pers. comm. Jordi Bruggeman). Redware is by far the best represented category in the assemblage and is of a local or regional origin. The other four categories are imported, with stoneware coming from the Rhineland and one decorated body sherd produced along the Werra river. As the latter is typical of Werra import into Flanders between 1580 and 1630, it will not be discussed any further. The tin-glazed ware originates from different production sites in the Low Countries. Finally, the provenance of the whiteware vessels remains unknown, although certainly non-local because of the unusual forms present. It was not possible to recognise a residual fraction within the latter five categories. However, if any older sherds were included in this analysis, their impact on the quantifications below is only limited.

Table 21 Quantification of ceramic categories.

	sherds	MNI	sherds%	MNI%	brokenness
redware	8743	1116	94.83	97.55	7.8
stoneware	440	24	4.77	2.10	18.3
whiteware	31	2	0.34	0.17	15.5
tin-glazed	5	2	0.05	0.17	2.5
werra	1	0	0.01	0.00	-
total	9220	1144	100	100	8.1

¹ Greyware was identified as residual by the excavators and confirmed as such in the present analysis.

Table 22 Quantification of ceramic forms (MNI).

	redware	stoneware	whiteware	tin-glazed	total
plate	116			2	118
lid	7				7
cooking pot	641		1		642
chamber pot		1			1
jug	58	19			77
<i>Pinte</i>		1			1
marble		1			1
bowl			1		1
frying pan	7				7
porringer	77				77
spindle whorl		1			1
skillet	51				51
large carinated bowl	133				133
flask		1			1
colander	1				1
basin	2				2
ointment jar	2				2
unknown	21				21
total	1116	24	2	2	1144

Table 23 Quantification by probable function.

	MNI	MNI%
food preparation	707	61.80
kitchen/stock	212	18.53
tableware	196	17.13
hygiene	5	0.44
other/unknown	24	2.10
total	1144	100

In what follows, we will elaborate on a selection of sherds, reflecting the diversity of fabrics, forms and types in this assemblage.

6.6 Fabrics and typology

6.6.1 Redware

The redware category consists of 1116 individuals, representing 11 different forms: plates, lids, cooking pots, jugs, frying pans, porringers, skillets, large carinated bowls, a colander, basins and ointment jars. Their fabric shows great similarities to the redwares at other early modern sites in the coastal zone, such as Middelburg. Some vessels are made of a slightly-different micaceous fabric, with finer quartz. A combination of fabric and form places a possible provenance in or around Bergen op Zoom (Groeneweg 1992, 119).

A first form group is that of the **ointment jars**. Their design is based on their maiolica counterparts (*albarelli*). They are characterised by the flat-turned (Figure 136:1) or slightly-concave bases (Figure 136:2-3) and a simple everted rim. The body might either be upright (Figure 136:1) or concave-sided (Figure 136:2-3) and always has a lead glaze on the inside. One vessel (Figure 136:2) was archaeologically complete. Its rim diameter is 5cm, and it measures 6cm in height. The two **basins** in this assemblage (Figure 136:4-5) both have a typical Y-shaped section of the rim with a clay strip applied underneath, decorated by thumb impressions. They have a globular body with a colourless lead glaze on the in- and outside. Two types of **frying pan** were identified. One type has a thickened, slightly-undercut rim (Figure 136:6), the other is characterised by a flattened, outstanding rim and a sharp transition to a convex base (Figure 136:7). The presence of a brown, colourless or reduced-green glaze on the inside and soot traces confirm the functional character of this form. Fifty-eight **jugs** were counted (Figure 136:8-15). Common features are the plain or ribbed rim and the spur marking the transition to a narrow collar. Several subtypes can be defined on the basis of the finishing of the rim. The **skillets** present at the Saint-Isabella fort could be divided into three different types. The majority of individuals belongs to the first type (Figure 136:16), with a spur under a simple upright rim, a hemispherical body, a pouring lip and a solid or hollow handle. The two other types differ from the former one, in that they have a straight-sided body with a thickened (Figure 136:17) or undercut rim (Figure 136:18). Seven vessels were identified as **lids** (Figure 136:19-22). They can be easily distinguished by the sole presence of a lead glaze on the exterior of the form. Their angular lip allows to securely close off pots.

One fragment (Figure 136:23) has an outstanding rim with a green-coloured lead glaze on the inside and a colourless lead glaze on a slip layer on the outside. This exterior is further decorated by small sgraffito arches. Although this fragment could not be identified with certainty, chances are high that it does concern a porringer. **Porringers** are well represented on this site. They have two opposing horizontal loop handles with a strap-shaped rim, either ribbed (Figure 136:27-28) or plain (Figure 136:25-26). One nearly-complete vessel (Figure 136:27) has a flat base. With a rim diameter of 16cm, its

width/height ratio is 1:0.4. A similar vessel, found at the castle of Middelburg-in-Flanders, dates to the late 16th-early 17th century (De Clercq *et al.* 2007, 16, fig. 11:91). One porringer (Figure 136:24) has a different form, with a smooth transition from collar to body. Its exterior is decorated by a sgraffito of linked-up arches. A form that is typologically related to the porringer, is the **large carinated bowl** (Figure 136:30-39, Figure 137:1-2). Although its use is traditionally associated with skimming cream of milk (Groeneweg 1992, 181; De Groot 2008a, 436), it has been indicated that this form type could have had multiple uses (see '4.5 Dietary practices'). Common features are the strap-shaped rim, pouring lip and lead glaze on the interior. Two vessels (Figure 137:1-2) were produced in a different fabric, described above, and display a different rim type, with a sickle-shaped and heavily-undercut design. These characteristics are typical of large carinated bowls from Bergen op Zoom (Groeneweg 1992, 180, 181, fig. 121:649). Their production seems to cease before 1600 (Groeneweg 1992, 182). The **colander** (Figure 136:29) follows the typology of the locally-produced large carinated bowls. Its strap-shaped rim is ribbed and the interior is covered by a green-coloured glaze.

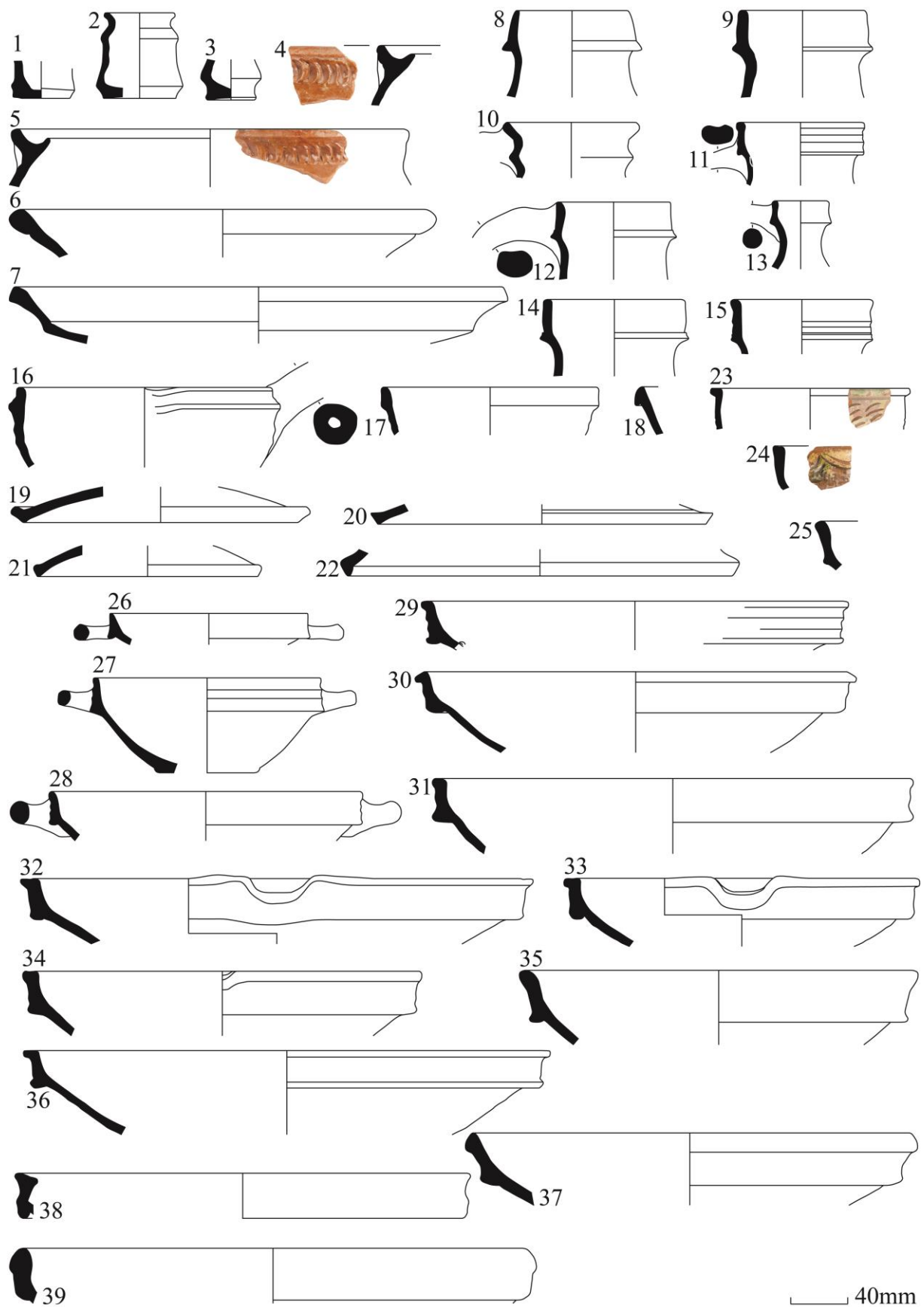


Figure 136 Local or regional redware pottery. 1-3: ointment jars, 4-5: basins, 6-7: frying pans, 8-15: jugs, 16-18: skillets, 19-22: lids, 23-28: porringers, 29: colander, 30-39: large carinated bowls.

The **plates** in this assemblage are all of a basic type, with a rim with upright lip and an accentuated transition to the well. A pronounced lower lip makes that the rims of some vessels (Figure 137:3, 6, 8, 10, 12) have a more hammer-headed appearance. Whereas the majority of plates has a plain lead glaze, a significant number are decorated. In terms of decoration, two different techniques can be distinguished: sgraffito and the application of white slip. The sgraffito fragments (Figure 137:4-5) are characterised by a sequence of two linked-up arches, combining a green- and brown-coloured glaze. Concerning the white slip decoration, different schemes were used: stripes (possibly in combination with a green-coloured well), S-scrolls, arches and more complex designs, combining the previous patterns with dots. The well is only incidentally decorated (Figure 137:10, 13). In a single case, this well is fully covered under a white slip layer (Figure 137:6). Slip decoration is a common technique in the early modern Low Countries and cannot be assigned to any particular production site. The sgraffito patterns are, however, unprecedented and may therefore perhaps point to a local/regional production.

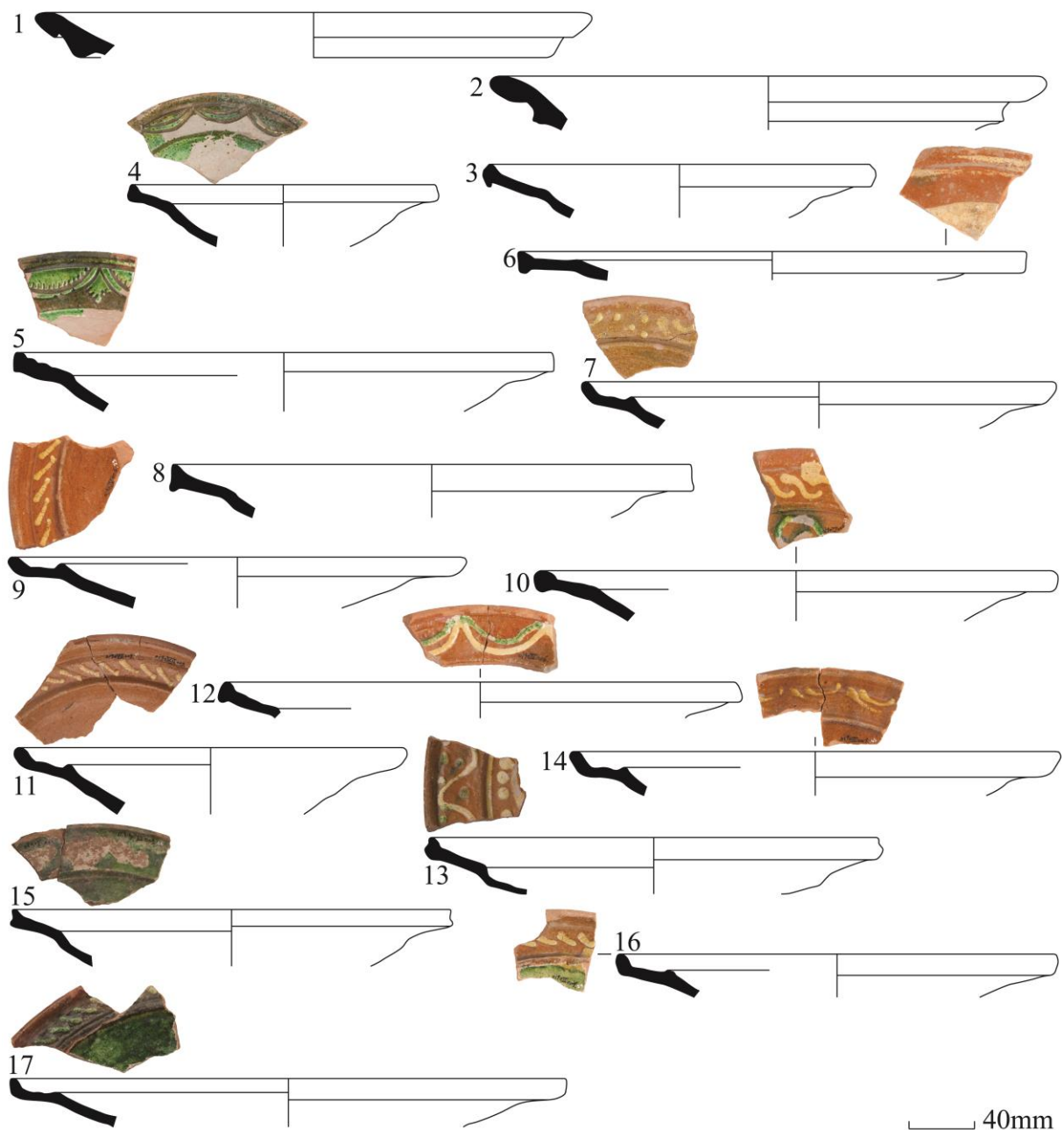


Figure 137 Imported redware pottery. 1-2: large carinated bowls. Local or regional redware pottery. 3-17: plates.

Finally, **cooking pots** are the most dominant form within the redware category (Figure 138:1-10). Characteristic features are the wide rim opening on an outstanding collar and two opposing handles. The interior is mostly covered in a colourless lead glaze, whereas the exterior often bears soot traces. The base is slightly convex and either has solid (Figure 138:1) or thumbed feet (Figure 138:2), with the former possibly under the influence of production centres in the Northern Netherlands (Hillewaert and Verhaeghe 1991, 211) and the latter typical of the Flemish coastal area (De Groot 2008a, 419). This discrepancy is also reflected in the overall dimensions of both cooking pots. One vessel (Figure 138:1) has a width/height ratio of 1:1.2 (rim diameter 15cm), while the other measures 1:0.8 (rim diameter 18cm). Compared to the contemporaneous site of

Middelburg-in-Flanders (Table 8), these cooking pots are rather high and closed. As such, they seem to be more in line with the ratios for cooking pots from the *Hof van Hoogstraten* in Brussels, dated 1525-1625 (Van Eenhooge 1999, 282, 297), and the St. Salvator abbey of Ename, dated 1450-1550 (De Grootte 2008a, 162, table 15). However, the cooking pots at the Saint-Isabella fort do resemble those present in the Middelburg assemblages, believed to be (partly) of a military origin, in that they have rather small rim diameters (De Clercq *et al.* 2007, 8; Poulain, De Grootte and De Clercq 2013, 6, 12). Out of the 204 individuals whose rim diameter could be calculated, 30.9% (63 individuals) ranges from 12 to 16cm, 52.5% (107 individuals) from 17 to 21cm, 12.3% (25 individuals) from 22 to 26cm and 3.4% (7 individuals) from 27 to 31cm. Only 1.0% (2 individuals) was bigger than 32cm.

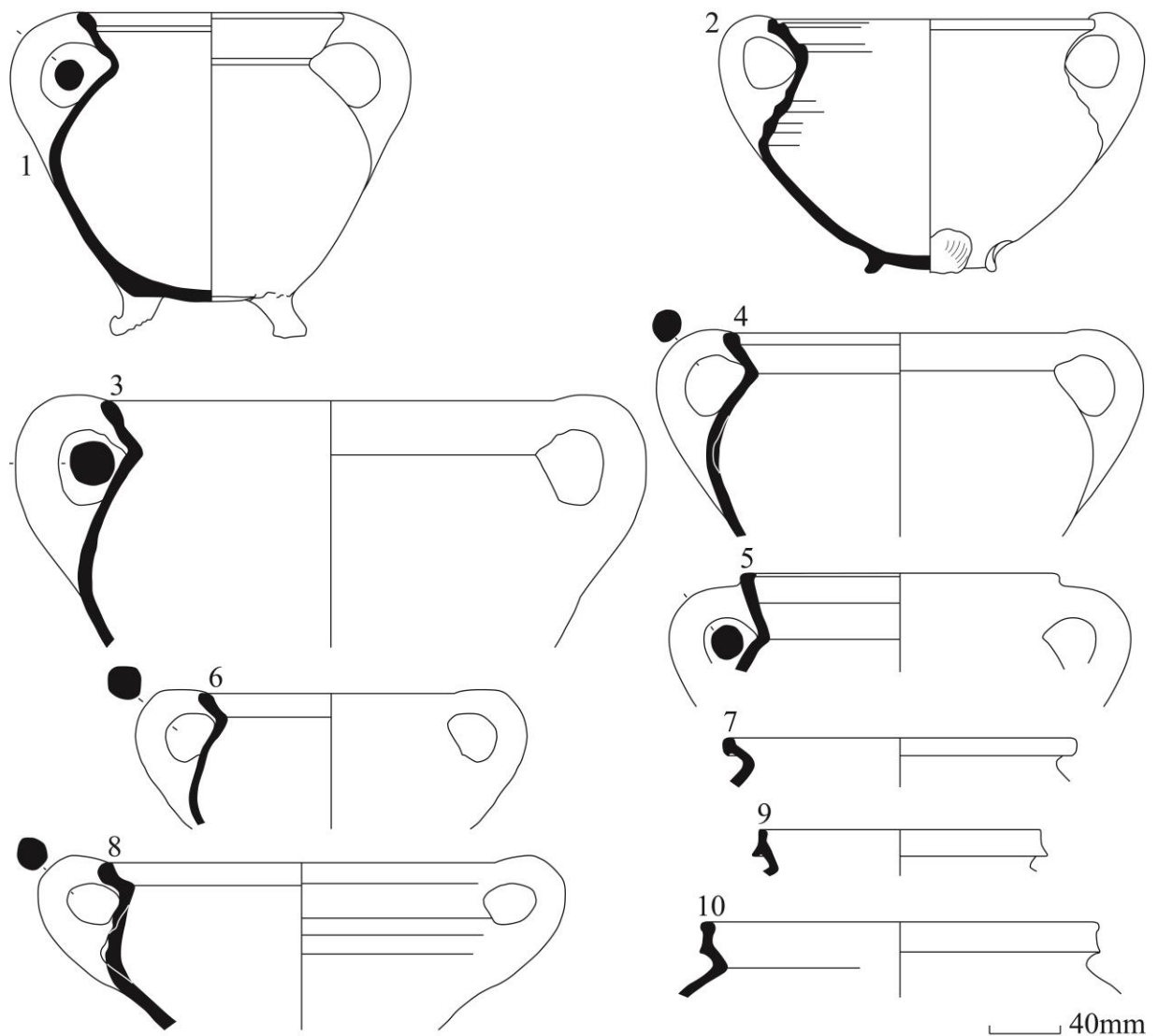


Figure 138 Local or regional redware pottery. 1-10: cooking pots.

6.6.2 Stoneware

Stoneware is the largest category of imported pottery at the Saint-Isabella fort. Different production centres are represented, all situated in the Rhineland. The majority originates from Raeren or its surrounding hamlets. As a further distinction cannot be made (Hurst, Neal and van Beuningen 1986, 4; Gaimster 1997, 224-226), these pots are referred to as Raeren-type (413 fragments, sherd count 93.9%). The same holds true for stoneware with cobalt-blue decoration (2 fragments, sherd count 0.5%). It is impossible to differentiate between Raeren and Westerwald productions of the late 16th and early 17th centuries, hence the name Westerwald-type (Hurst, Neal and van Beuningen 1986, 221; Gaimster 1997, 226, 251). Because of the mottled appearance of their glaze, 6 fragments (sherd count 1.4%) could originate from Frechen (Hurst, Neal and van Beuningen 1986, 214; Gaimster 1997, 208). A last production centre, Siegburg, is easily recognised on the basis of its light grey fabric. Nineteen fragments (sherd count 4.3%) probably all derive from the same vessel (Figure 139:2).

Several forms are represented: a spindle whorl, a flask, a *Pinte*, a (mustard?) pot and jugs. The **spindle whorl** (Figure 139:1) is partly covered with a brown engobe and is decorated by two grooves around the girth. A parallel is present in the Middelburg assemblages and would be typical of Raeren production between the late 15th and third quarter of the 16th century (De Clercq *et al.* 2007, 15). Such concentric circles are also incised on the body of a **flask** (Figure 139:2). It is further decorated by a light brown wash. As stated above, it is the only Siegburg-type vessel. The costrel has a funnel-shaped, ribbed collar and several suspension handles spread across the body. It is dated to the 16th century (Reineking-von Bock 1986, 93). One *Pinte* was recognised (Figure 139:3). It is characterised by an overall salt glaze and brown engobe. An applique with a cross-like pattern was placed between a series of ribs. The following form (Figure 139:4) has an upright rim, one handle and a sharp transition to a globular body, covered in a brown engobe and salt glaze. This pot bears close resemblances to **mustard pots** depicted on contemporaneous iconography. However, others have identified it as a mug or cup (for example Reineking-von Bock 1986, 280). As this determination as mustard pot may thus be somewhat premature, it was not determined as such. The only **chamber pot** that was counted in this assemblage has an everted rim, with a spur on the transition to a low-centred body and a salt glaze on both the in- as exterior. The other vessels were all identified as **jugs**. Because of its cobalt-blue decoration, one of these jugs (Figure 139:12) was ascribed to the so-called Westerwald-type. The others are typical of the Raeren-type. Within these jugs, several types can be recognised. A first one has a slightly inwardly-bent rim with a cylindrical, ribbed collar (Figure 139:6-8). Associated types are either funnel-shaped, with the ribs on the collar only starting below the attachment of the handle (Figure 139:9) or have a plain collar, with a spur on the transition to the body (Figure 139:10). They are typical of the late 16th to early 17th century (see for example

Vlierman 2005; and the vessels depicted in Gawronski 2012, 177, fig. 354-358). With a following type, the spur is placed higher up and coincides with the attachment of the handle (Figure 139:11-13). The collar can also be more elaborately decorated, either by appliques (in case oak? leaves [Figure 139:14] or a bulged design [Figure 139:15]). Bases are flat-turned or slightly concave. Their transition to the body is always accentuated by one or several ribs (Figure 139:16-17). Some decorated fragments provide specific *termini post quem* and as such give an indication of the life span of stoneware jugs. For example, a first fragment (Figure 139:18) consists of a potter's mark, depicting a roomer, jug and initials. Although these initials could not be assigned to a particular potter, parallels are dated in the 1590s. Moreover, this mark is often accompanied by the following moralising proverb: *Der Römer und die Kann macht manchen armen Mann* (Kohneman 1982, 49). No such proverb seems to be applied here. A following fragment of a baluster-jug (Figure 139:19), depicting a soldier and the letter 'O', can also be dated in that late 16th century (Gaimster 1997, 225). It is part of a larger frieze that reads 'ANNO 1598' (Kohneman 1982, 200). Two final sherds show the escutcheon of Philipp Lomont (Figure 139:20), owner of the Raeren Burg from 1583 onward (Kohneman 1982, 36), and that of Wilhelm von Nesselrode zu Munts († 1602) and his wife Wilhelma von Str(e)ithagen († 1633, Figure 139:21), who married in 1581 (Kohneman 1982, 60). An interesting parallel for the escutcheon of Lomont, dated 1601, was found in the nearby late medieval fishing village of Raversijde, which was used for the cavalry barracks of the archdukes during the siege (Pieters *et al.* 2013, 258, 267, fig. 277, 531).

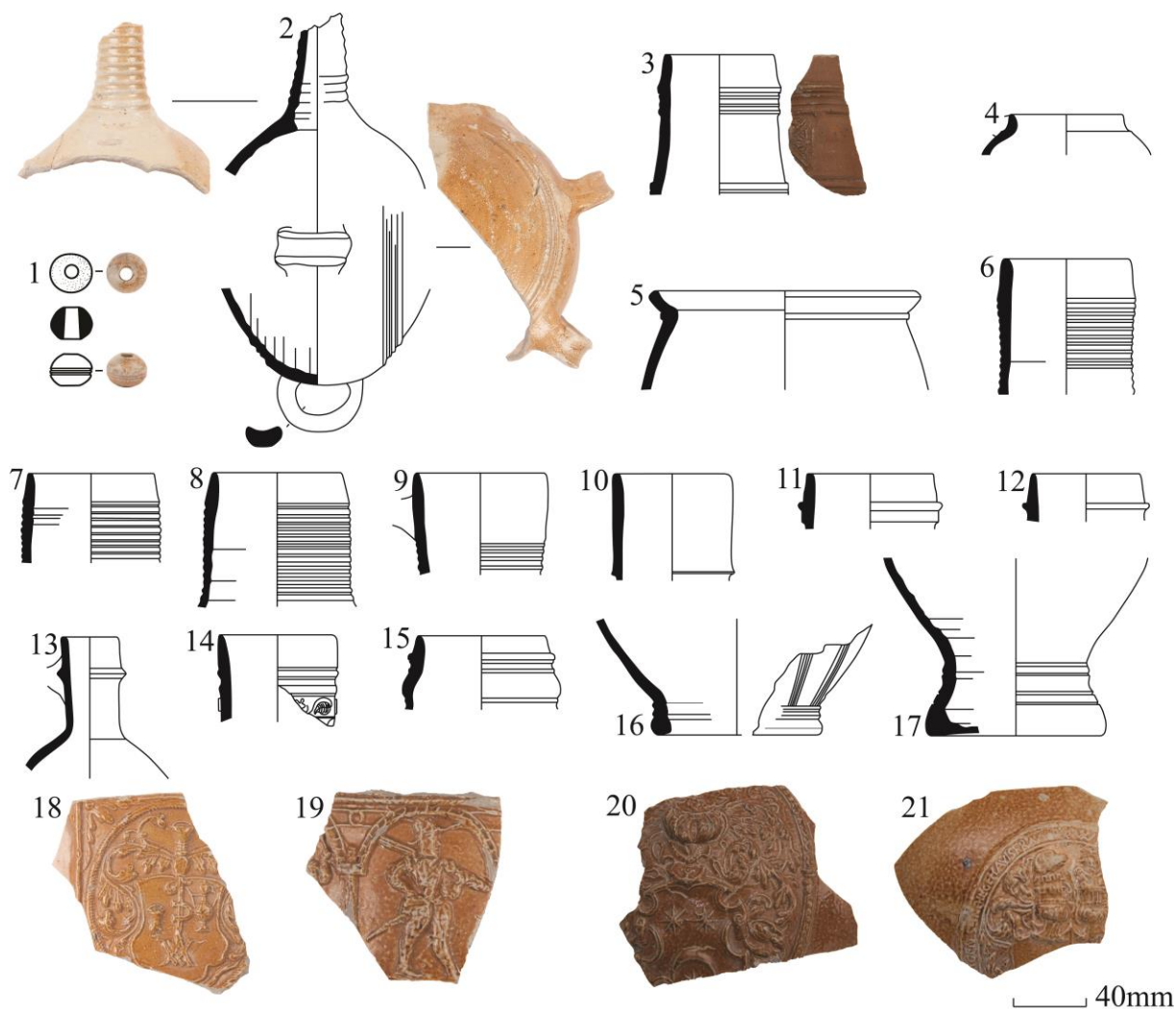


Figure 139 Rhenish stoneware. 1: spindle whorl, 2: flask, 3: *Pinte*, 4: cup/pot (mustard?), 5: chamber pot, 6-21: jugs (18-21 not to scale).

6.6.3 Whiteware

Whiteware follows stoneware as the second most common import (sherd count 0.34%, MNI 0.17%). A first group of sherds (Figure 140:3-5) resembles Weser products in its use of red and white slip decoration. The fragments probably derived from a **plate**. However, the very fine fabric with a sparse distribution of quartz particles and the decoration pattern differ from the typical Weser imports into Flanders. A provenance along the Weser river is therefore not entirely certain. This is why these sherds were categorised as 'whiteware' and an exact provenance was not attributed. A following fabric is more heavily tempered with sandy particles and makes up one individual, identified as a **cooking pot** (Figure 140:1). This pot has a rather open shape with two handles, a convex base on a footring and a green-coloured lead glaze on both sides. The presence of the footring (instead of feet) and the lack of soot traces could suggest that the vessel was not a cooking pot. The form might thus well be a double-handled cup. A final fabric is sandy

as well, although distinct from the previous ones in the presence of grog. One **bowl** was found (Figure 140:2). Its thickened rim is slightly everted and a lead glaze covers the interior of the vessel.

6.6.4 Tin-glazed ware

As a final category, tin-glazed ware makes up 0.05% of the sherds and 0.17% of the individuals in this assemblage. The five sherds that were counted all belong to **plates**. Their decoration is characterised by a purple and blue zigzag pattern (Figure 140:6) or blue concentric lines (Figure 140:7) on the rim and a floral motive in yellow and green (Figure 140:8) or chequerboard pattern (Figure 140:9) on the body. These schemes seem to be typical of the late 16th and first half of the 17th century (Korf 1981, 54, fig. 103; Veeckman 1999, 114, 120, fig. 6.7; Oost and Veeckman 2002, 56).

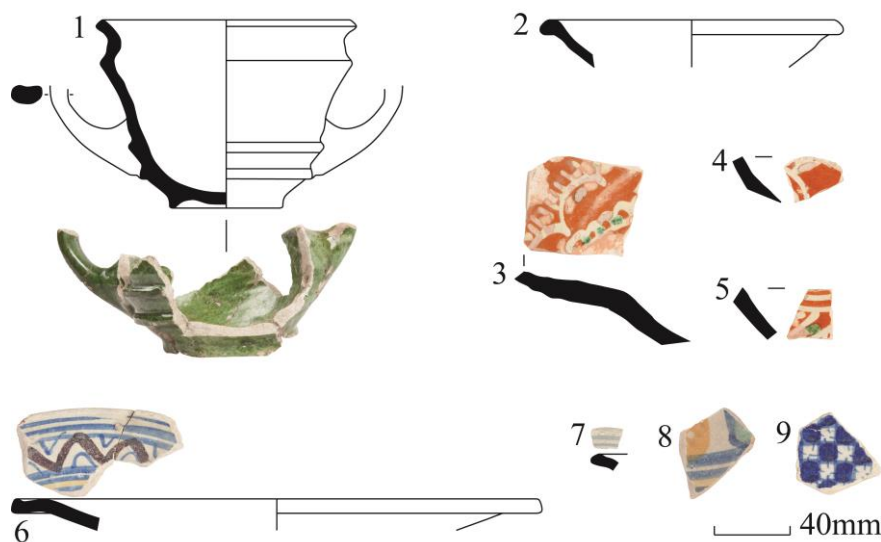


Figure 140 Imported whiteware pottery. 1: cooking pot, 2: bowl, 3-5: plates, Low Countries maiolica. 6-9: plates.

6.7 Spatial analysis

With the different form types described above, the following section now discusses their spatial distribution. The spatial resolution of the ceramics on this site is rather low as sherds were collected on a trench level. In an attempt to extract the most out of this rescue excavation, the distribution (in equal intervals) of these ceramics is analysed in a GIS. In doing so, some suggestions can be made toward the former interpretation of certain structures and toward the functions of certain buildings that remained thus far

undetermined. Trench III has been restrained from this analysis. As it concerns a section across the ramparts, it adds only little to the interpretation of the structures on the inner courtyard.

Figure 141 shows the distribution of sherds and individuals at the Saint-Isabella fort. Both distributions display similar amounts of pottery in the trenches, resulting in a degree of brokenness that is rather uniform across the site. This pattern of refuse disposal confirms the above suggestion, in that the pots were largely deposited under the same circumstances, likely during the dismantlement of the fort.

However, within the scatter of pottery, several concentrations can be noticed. The highest number of sherds and individuals was recovered from trench V, an observation that can probably be linked to the presence of the large refuse pit. Trench VIII, adjacent to building 2, follows as the second largest concentration. Its small surface area, makes that the density of sherds and individuals per square metre is highest here. Finally, a last concentration can be situated within and to the west of the 'barracks' (trench X and XIII). What is particular, is that this concentration is mainly characterised by redware ceramics, while stoneware was largely found in and around building 1 and 2 and trench XI. This could be a reflection of the differentiated use of these buildings, with stoneware mainly being used in more public spaces rather than in the intimacy of the soldier's quarters.

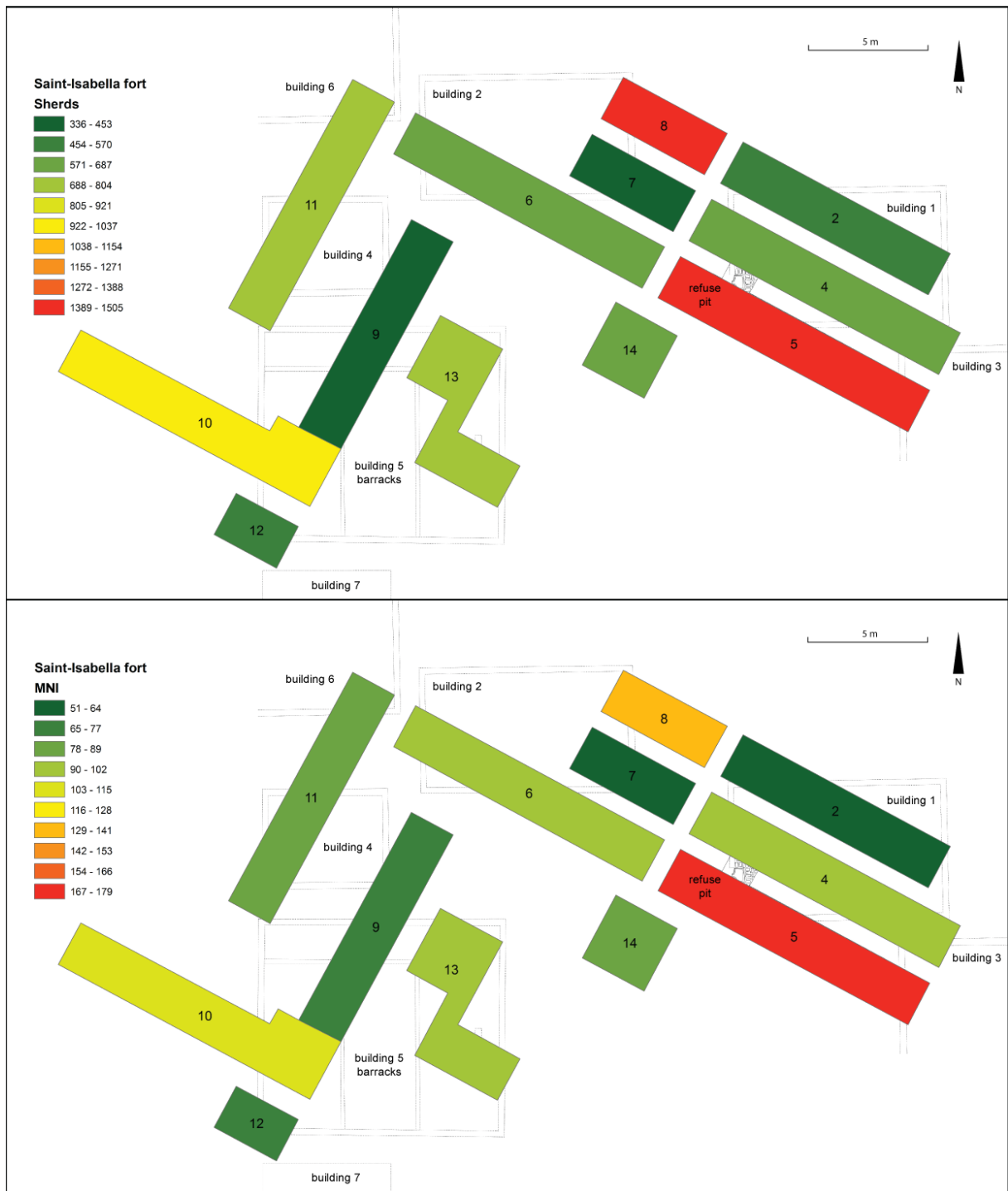


Figure 141 Distribution of sherds and individuals at the Saint-Isabella fort.

This differentiated use in buildings is well reflected when the ceramics are grouped into more general functional categories (Figure 142). The forms related to food preparation (cooking pots, skillets, frying pans and lids) make up the main percentage of individuals present in trenches VII and VIII (building 2) and in trenches IX, X, XII and XIII (building 5: 'barracks'). Lids were only recovered in the latter building. Its use may thus be linked to the food preparation by soldiers themselves. The limited amount of lids, however, indicates that this use was not a widespread practice. On the other hand,

tableware (largely determined by plates and porringers) is mainly concentrated in trenches II, IV and V (building 1: 'kitchen'). High percentages of tableware are also present in trench XI and trench VI. The large amount of tableware in the latter trench could be explained by the possibility of it cutting the refuse pit, connected to the stone waste plate in building 1. Finally, the category kitchen/stock (large carinated bowls, jugs and a colander) seems to be largely grouped in trenches IX and XI, in and around building 4.

The above observations provide some arguments to reevaluate the interpretations made in the past. The concentration of tableware in building 1, argues against its former identification as a kitchen. It may perhaps rather be seen as a refectory. Consequently, on the basis of the ceramic evidence, a stronger argument could be made for building 2 being the fort's kitchen or as a place where food was, at least, partly prepared. The great amount of large carinated bowls in and around building 4, might furthermore suggest that this construction played a part in dairy production. Finally, whereas the former interpretation of building 1 can be doubted, the identification of building 5 as the soldier's quarters still holds. Forms related to hygiene, such as basins (trench X and XIII), or personal items, such as the spindle whorl (trench XII), are clustered in and around this building and reflect the living function of this unit.

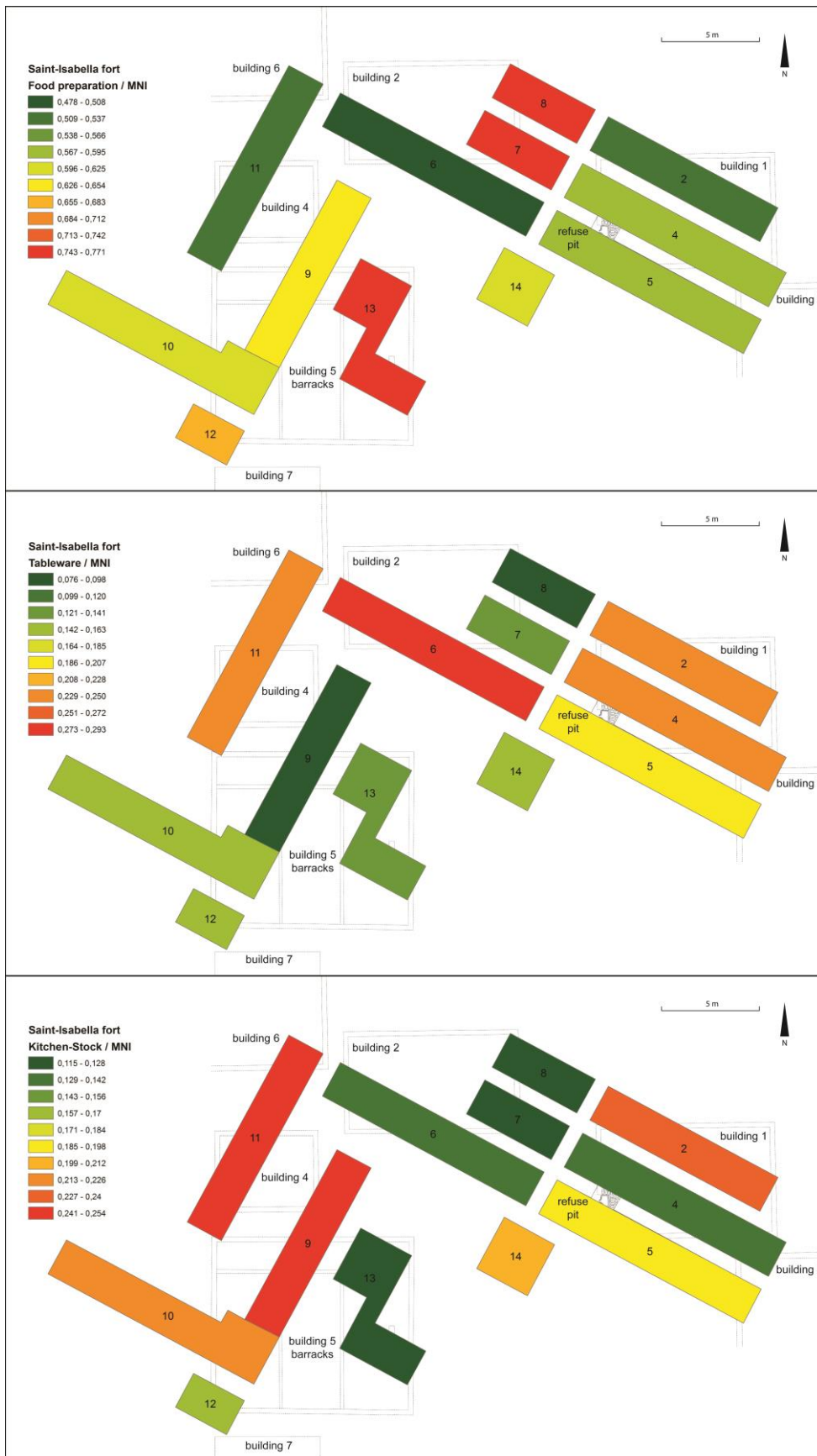


Figure 142 Distribution of probable functions at the Saint-Isabella fort (percentages of individuals in respective trench).

6.8 Interpretation and discussion

When both the ceramic analysis and the spatial distribution of forms and categories are taken into account, it is possible to come to a more profound understanding of early modern ceramics in Ostend and ultimately, everyday life at the Saint-Isabella fort. The following paragraphs will touch upon the chronology of the studied assemblage, the evidence it provides for a military material culture, its role in the construction of a soldier's group identity, and the archaeological visibility of camp followers.

6.8.1 Chronology

On a chronological level, the narrow date of the assemblage opens up the possibility for statements on the average life span of ceramics, prior to their deposition. Local, redware ceramics are of little help in answering this question, as they only provide a broad dating in the second half of the 16th to the first half of the 17th century. Unfortunately, the maiolica imports cannot refine this dating any further. Since their production ran until 1650, the maiolica vessels may well be (partly) intrusive. It is especially the stoneware imports that make it possible to narrow this dating to the last two decades of the 16th and the very beginning of the 17th century. As it is believed that the ceramics were already deposited c. 1604, the ceramics at the Saint-Isabella fort seem to have had a maximum life span of 25 years. However, as the moulds for the stoneware decoration could have been used for multiple years, this average life span may possibly be significantly shortened. Other than dating, the ceramics provide several insights into the soldier's material culture.

6.8.2 A military material culture: indications of group identity

A first element that seems to be typical of early modern military life, is the use of small cooking pots. For the contemporaneous site of Middelburg, it is thought that these small volumes may be indicative of a soldier's dietary practice, pointing to the heating and consumption of food in individual portions (De Clercq *et al.* 2007, 20, 52; Poulain, De Groote and De Clercq 2013, 17). This may also be the case for the Saint-Isabella fort (over 80% of the vessels have a rim diameter of 21cm or below). Although eating may have been communal, written sources indicate that soldiers themselves were responsible for gathering food and the necessary cooking utensils. Authorities were responsible for providing housing, lighting and heating and supplied vinegar, oil, salt and pepper. These ingredients allowed the soldiers to look after themselves. It is only from the second half of the 17th century onward that a part of the pay was retained by the government to buy

bread (Rooms 2003, 205, 233; 2004, 73). Furthermore, the lack of standardisation in those cooking pots does not suggest a purchase in bulk, but is rather indicative for the fact that soldiers were indeed responsible for their own cooking equipment, as is suggested by the written sources above. Although the choice for small cooking pots thus probably flowed from practical concerns, as it is easier to carry around on campaign, it nevertheless set soldiers apart from the other groups which they came in contact with (e.g. the peasants, burghers and lords providing resources and shelter). As such, it may have contributed to the formation of a military group identity.

A second element speaking in favour of a military material culture lies with the ratio between different ceramic categories. For the site of Middelburg, it has been illustrated that, due to the breakdown of the economic networks in times of war, soldiers were more reliant on local food sources than was usual in early 17th-century Flanders as the access to imported goods was limited (De Clercq *et al.* 2007, 53). At the Saint-Isabella fort, economic restrictions might well be visible in the unparalleled predominance of locally-produced redwares, certainly with tableware (for which imports generally provide a good alternative). Particularly striking is the near absence of tin-glazed pottery, maiolica, often produced in cities in the Calvinist North. Apparently, the soldiers at the Saint-Isabella fort could not, or did not want to, acquire these goods.

This lack of maiolica could be explained by a trade embargo imposed by Spain between 1598 and 1608 (Allen 2000; Deurloo 2012). However, several elements argue against this hypothesis. First of all, this embargo was already less strictly enforced in 1603 and by the beginning of the 17th century, maiolica was no longer the luxury product of the century before. It must have been affordable for at least some at the Saint-Isabella fort, officers for example. Furthermore, tin-glazed goods could have been produced before 1598 and live on for a couple of years (as seen for the stoneware) or it could have been produced in Antwerp, which regained its catholic status in 1585 and where production of maiolica continued until the second quarter of the 17th century.

The lack of maiolica could also have been the result of troubles with the supply routes. The possibility that such goods did not reach Antwerp's hinterland has been suggested for the large-scale excavations at the Fochplein in Leuven, where maiolica is also almost completely lacking in 16th- and early 17th-century assemblages (de Rue and Smeets 2014, 191). However, the presence of tin-glazed wares in Ostend, certainly prior to the siege (Pieters *et al.* 1995, 190; Pieters *et al.* 2003, 239, fig. 13, 240, 270), and the nearby Bruges (Swimberghe 1985, 190-197) and Middelburg (De Clercq *et al.* 2007, 12-15, 17) shows that these good were largely available on the market in the coastal area. Moreover, this lack of maiolica can also not be attributed to the fact that plates were not carried along on campaign, as plenty of locally-produced plates were found. Brokenness figures for other early modern sites in Flanders finally suggest that maiolica is not more fragile than redware (see data in this dissertation). It is thus equally suited to the transient military lifestyle.

On the basis of the above observations, the hypothesis could be suggested that a conscious choice was made by the soldiers at the Saint-Isabella fort for not using products with a Dutch signature. Such a deliberate choice could be another constituent element of a soldier's group identity. The same process can also be seen in the Northern Netherlands, where a decline is noted in the consumption of Spanish products from the second half of the 16th century onward (Ostkamp 2012, 67).² However, how to explain the presence of the few maiolica sherds at the Saint-Isabella fort and the Saint-Clara fort in this model? That all of these sherds are intrusive, is rather unlikely. The same remark could be made for the large carinated bowls from Bergen op Zoom. Were these not recognised as Dutch or did they not entail the same meaning? These are but some of the questions raised by this material.

Putting the tin-glazed ware to one side, the other sherds can also inform us about the attitudes of the occupants of the fort. For example, by depicting soldiers, some stoneware jugs made reference to its users, while others were used as a means of propaganda, as is clear from the sherd showing the escutcheon of Wilhelm von Nesselrode and his wife, Wilhelmina, both supporters of the Spanish cause. When using such jugs, the respective soldier publicly expressed his political allegiance, pledging to his fellow soldiers, the von Nesselrodes and ultimately, the Spanish king.

Although the evidence is still scarce and fragmented, the finds from the Saint-Isabella fort seem to indicate that this place was not sterile but formed the context in which soldiers actively created their own group identity, be it by the rituals involved in communal pledging and drinking, the public expression of political allegiance or by deliberately not using the enemies' products. This identity was always formed in negotiation with other groups, and especially those of women and children.

6.8.3 Camp followers: archaeologically invisible?

The presence of women and children in these military environments is clearly attested, not only on paintings (e.g. Cornelis De Wael - Siege of Ostend, Museo del Prado) but also in written documents. Several accounts mention that, right at the start of the siege, cannon balls killed over a hundred people at the Saint-Albertus fort, amongst which were a washerwoman, some children and sutlers (Thomas 2004b, 82). Many soldiers had brought their wives with them or were occasionally visited by their spouses. This led to the birth of many 'army brats'. To name but one example, the chaplain of the garrison church of Antwerp baptised 571 children between 1628 and 1637 (Parker 2004, 150). Those without a wife could have resorted to prostitutes for their sexual needs. This was

² An observation made for the site of Clasinastraat, Arnemuiden, where the 16th-century ceramics are put into the wider context of Walcheren and the Netherlands.

apparently not to everyone's liking. A certain Frederik van Vervou complained about the Dutch military, as they passed their time *swearing, cursing, playing cards and dice, getting drunk and visiting prostitutes* (de Graaf 2004, 108). Prostitutes were also present in the Spanish army, although perhaps less publicly. By order of May 27 1596, archduke Albrecht limited the number of prostitutes to three per company. These prostitutes were obliged to disguise themselves as washerwomen or something similar and they furthermore needed to be of 'competent age' and of good health (Verbanck 1978, F19; Parker 2004, 150).

Despite their presence being clearly attested, women and children are hardly visible in the archaeology of these military environments. Only one find may possibly attest to the presence of women on site and that is the stoneware spindle whorl (Pieters *et al.* 2004, 143-144). To make this link between women and spindle whorls may be somewhat premature, although it can be justified as traditional roles were upheld during this time of crisis. If this single find would indeed reflect the presence of women at the Saint-Isabella fort, it is perhaps no coincidence that it was located in or next to the barracks (building 5). As seen above, rooms for camp followers were an integral part of the soldier's quarters in the city of Ostend. Concerning children, their presence may possibly be illustrated by yet another single find, a stoneware marble in trench III. Unfortunately, as this is the trench running across the ramparts, it is not possible to link it to a specific building within the fort. It can be imagined that the ramparts were an enticing place to play, be it by children or idle soldiers.

6.8.4 Conclusion

By examining the ceramics at the Saint-Isabella fort, this study presents the first in-depth analysis of everyday life at the forts surrounding Ostend. The limited chronological range of the assemblage makes it a type site for further research in the region. Moreover, the distribution of categories and forms on the site itself, allowed a revaluation of its former interpretation. The alteration, addition and confirmation of functions associated with the excavated buildings illustrates the use and importance of spatial analysis in the study of ceramic assemblages. Furthermore, and perhaps even more significant, the study allowed a glimpse on the consumption patterns, attitudes and identity of soldiers at the turn of the 17th century. Recent research illustrates the importance of material culture in maintaining a garrison's group cohesion and a soldier's identity (Askew 2013). This study confirms that this is indeed the case. Convivial drinking and the active choice against certain products can be seen as two key elements in establishing a military identity and in binding a group of soldiers, coming from different regions, together. Comparing the above hypotheses to other forts in the Low Countries is, however, not yet possible. Ceramic assemblages are either too small to make any statements or are not described at

all. Future research of early modern forts, and their material culture, therefore holds much potential.

Chapter 7 A Portuguese lifestyle in the Flemish countryside: Ceramics of the Ximenez family at the *Blauwhof*, Steendorp (c. 1595-1700)

This chapter has been submitted with *Post-Medieval Archaeology*:

Poulain M., Van Vaerenbergh J. and De Clercq W. 2016. A Portuguese lifestyle in the Flemish countryside: Ceramics of the Ximenez family (c. 1595-1700).

7.1 Introduction

Between 1998 and 2004 a multi-period site was excavated in Steendorp (Temse), a small village along the Scheldt river in Flanders (Belgium, Figure 143). A large-scale clay exploitation threatened the archaeological record that was preserved under the local microtopography. Over these seven years, a team of the *Archeologische Dienst Waasland* (ADW, now *Erfpunt*) uncovered some remains dating to the Late Iron Age and Roman period, a late medieval moated site, the *Hof van Leugenhage*, and its early modern successor, the *Blauwhof*, bought in 1595 by the Portuguese merchant-banker Duarte Ximenez (Van Vaerenbergh, Van Roeyen and Van Hove 2007, 428-448). It is the latter rural estate that will be in the centre of this thesis. The base of this study consists of a large assemblage of pottery, supplementing previous studies on the *Blauwhof*'s bone material (Aluwé, Starkovich and Van Vaerenbergh 2015) and porcelain (Bruggeman 2015). The integration of these previous analyses into the present study and the comparison with archival records will touch upon aspects of religion, hybrid identity and the use of Portuguese ceramics in an international context. As such, new insights are obtained into the lifeways of immigrant families in 17th-century Flanders. In the following, the terms 'lifeway' or 'lifestyle' are not used to deny the multiplicity of taste

groups with Portuguese immigrants, but rather serve to designate the continuation of Iberian practices in a Flemish context.

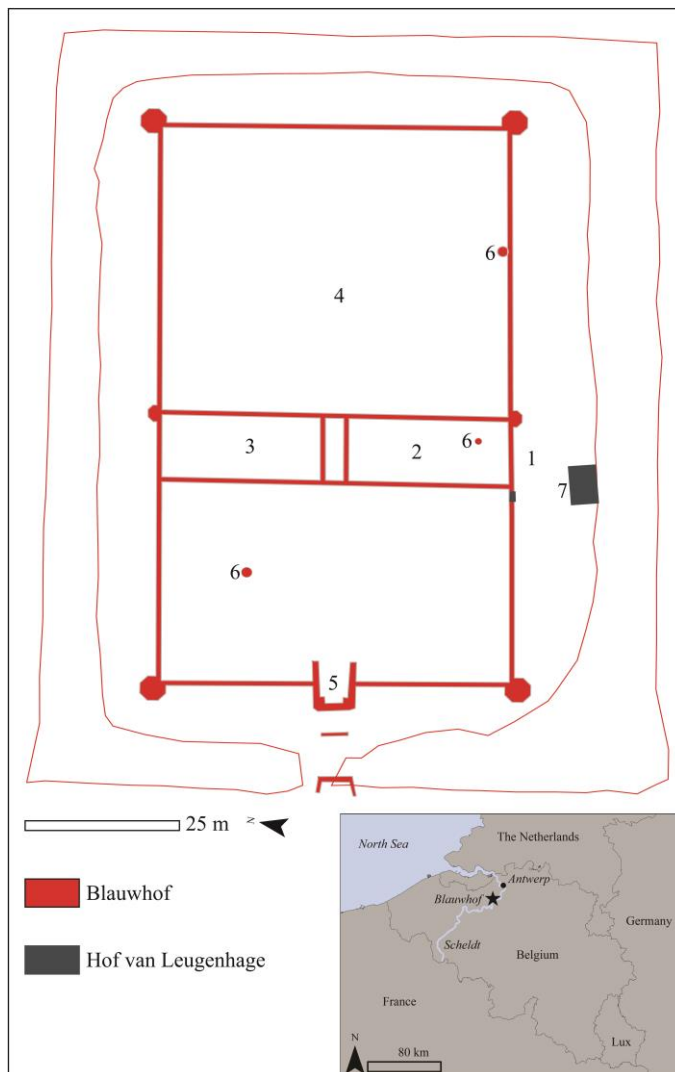


Figure 143 Location and simplified excavation plan of the *Blauwhof*, Steendorp (Temse). 1: location of assemblage, 2: manor, 3: outbuildings, 4: garden, 5: bridgehead, 6: wells, 7: chapel. Adapted from Van Vaerenbergh, Van Roeyen and Van Hove (2007, 437, fig. 10).

7.1.1 The Ximenez family

Duarte Ximenez, who ordered the construction of the *Blauwhof*, was part of the old Spanish-Portuguese noble family Ximenez d'Aragão, who settled in Antwerp in the middle of the 16th century. Locally, the Ximenezes were considered as one of the most important families amongst the so-called *marranos* or *cristãos-novos* (New Christians): Iberian Jews who converted, or were forced to convert, to Christianity (Van Vaerenbergh, Van Roeyen and Van Hove 2007, 430). Antwerp housed one of the largest *converso* communities in early modern Europe, with c. 85 New Christian families present in the city

by 1571 (Bodian 1997, 28; Nenk 2003, 204). The Portuguese immigrants in Antwerp organised themselves into nations (commercial guilds) and made the city into their commercial hub of trade, north of the Alps (Dupré 2011, 261). The Ximenez family, with Fernão (1525-1600) and Ruy Nuñez Ximenez (1529-81) as the two first representatives in Antwerp, engaged in the global trade of bulk products and luxury goods, and in monetary transactions with the Spanish Crown, with offices in several of Europe's main cities (Pohl 1977, 79; Dupré 2011, 268). This successful trade was continued in the 1590s under three of Ruy Nuñez's sons: Duarte (1561-1630), Emmanuel (1564-1632) and Gonzalo (1575-1638), all of who were Knight in the Order of St. Stephen and held office as consul in the Portuguese trade nation (Pohl 1977, 80-81, 357). The Ximenez partnership counted many ships, embarking on voyages to Africa, the Canaries and Brasil (Janssens 1941, 71). This trade generated the necessary capital allowing for a luxurious lifestyle and the acquisition and maintenance of their many properties, such as a city palace on the Antwerp *Meir* (one of the smartest streets) and a countryside retreat, the *Blauwhof*.

7.1.2 The *Blauwhof* estate

The late medieval *Hof van Leughenhage* was bought in 1595 by Duarte Ximenez. The actual construction of the new estate started a few years later and can be dated around 1600. After Duarte's death, the *Blauwhof* passed on to his younger brother Emmanuel. The manor remained in the Ximenez family until it was sold in 1697, after the death of the last scion in 1695. Under the following occupants, the estate was poorly maintained and eventually dismantled around 1770, to be transformed into arable lands (Janssens 1939, 40-41; van Kretschmar 1978, 47; Van Vaerenbergh, Van Roeyen and Van Hove 2007, 430).

Several historical sources inform us on the structural aspects of this country estate (Figure 144)(van Kretschmar 1978). It concerns a moated site, of which the outer walls were crenellated with faceted towers on the corners and a square tower with drawbridge on the west side. The Ximenez's residence was situated in the centre of the estate and had a garden adjacent to the east. Outbuildings, such as stables and barns, were situated to the north of the manor, while a chapel was situated to the south (Van Vaerenbergh, Van Roeyen and Van Hove 2007, 430, 438). The tower in which this chapel was located stood in the moat and might well have been a remnant of the previous *Hof van Leughenhage* (Van Vaerenbergh, Van Roeyen and Van Hove 2007, 436).



Figure 144 The *Blauwhof* in Antonius Sanderus's *Flandria illustrata* (1641-1644), Ghent University Library.

The material studied in this thesis was recovered from the moat to the south of the estate's manor house, where the kitchen and latrines were most likely situated (Figure 145). The moat was filled up in several phases. A first layer [E] was closed off by a nearly-sterile layer [D], on top of which layer [C] is situated (Figure 146). The [E] layer is associated with the Ximenez family, whereas [D] is linked to the period where the estate transferred to its new owners at the turn of the 18th century. A faience bowl with a date of 1675 provides a *terminus post quem* for this layer and is thus concurrent with the historical sources. The subsequent [C] fill then contains material of the *Blauwhof's* 18th-century occupants. In this dissertation, we only included objects originating from layer E, which were certainly discarded under the ownership of the Ximenez family.



Figure 145 View on the mansion's walls and adjacent moat, with indication of the different fills (photograph *Erfpunt*).

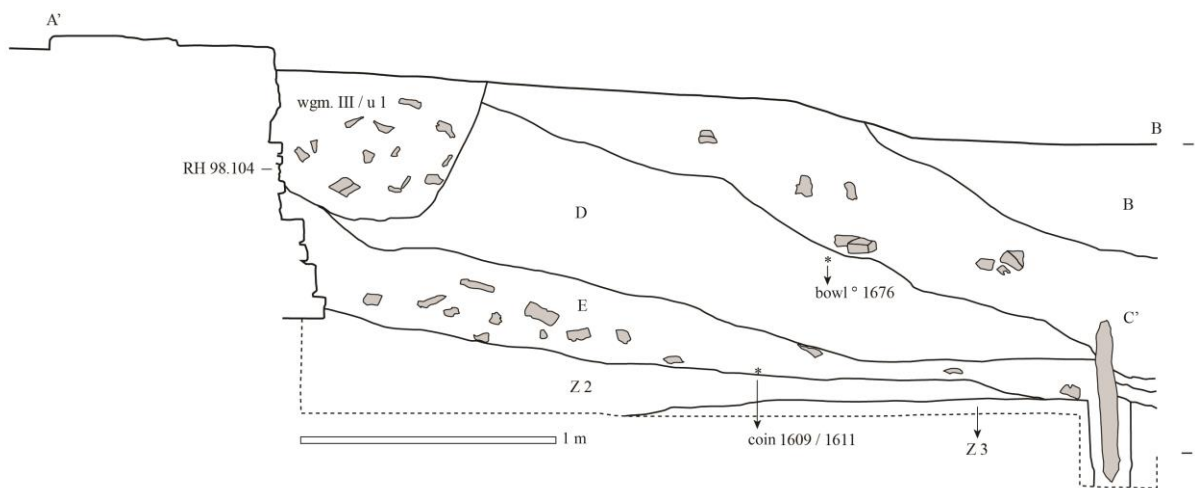


Figure 146 Stratigraphy of the fill of the moat (courtesy of *Erfpunt*).

7.1.3 Research questions

The fact that we deal with an assemblage of a known date (1595-c. 1700) and of this particular Ximenez family opens up myriad possible questions. Previous studies have already brought up the issue of religion. Portuguese New Christians are sometimes suspected of secretly practicing the Jewish faith (crypto-Judaism). Evidence for a

clandestine synagogue in Antwerp between 1564 and 1594 supports that several amongst these families were indeed crypto-Judaizers (Bodian 1997, 28). However, the Ximenez family is believed to have been fully assimilated into Antwerp's dominant Counter-Reformation culture (Göttler s.d.). A sepulchre for the Ximenezes in the Antwerp Cathedral, ordered by Fernão in 1592 (Pinchart 1863, 300-302), serves as the best illustration of adopted Christianity. This observation of assimilation was confirmed by recent research on the *Blauwhof's* animal bones, evidencing a Catholic religious affiliation in the dietary practices (Aluwé, Starkovich and Van Vaerenbergh 2015, 588). However, can this affiliation also be detected in the ceramic material? And is the Ximenez family truly fully integrated into Antwerp's elite society or is there still something that sets them apart from the material culture of the 17th-century's well-to-do? The same study on the bone material already hints at the latter, as the dominance of sheep and/or goat is identified as a continuation of Portuguese traditions (Aluwé, Starkovich and Van Vaerenbergh 2015, 587). An important comparison is the study of crypto-Jews in Reformation England, certainly since close ties existed between both regions (Nenk 2003, 211). In this study, a strong Iberian identity is noted among the *conversos*, possibly incorporating objects with Portuguese associations in their material culture (Nenk 2003, 216). However, *living and worshipping outwardly as Christians for several generations led to the incorporation of aspects of Christian culture into certain areas of converso life* (Nenk 2003, 211). It is yet to be seen whether this hybrid identity is reflected here. A final issue lies with the question of wealth. How is the extended network of the Ximenez family translated into material culture and, although ceramics are often regarded as a bad graduator for status, are there some finds that can still be used as an indicator of affluent consumers?

7.2 Sampling strategies and taphonomy

In order to answer the above questions, I opted to study just the Ximenez material, leaving the younger and older phases aside. The majority of the ceramics was recovered from the [E] layer. In a few cases, sherds were incorporated from the layer where the [E] and [C] fill come together. Their incorporation is justified by decoration or Portuguese provenance, which puts them in the 17th century. This practice inevitably leads to an overrepresentation of decorated ceramics, such as tin-glazed ware and stoneware. However, since only eight sherds or four individuals were incorporated in this way, its impact on the quantification below is only limited.

7.3 Quantification

These selection criteria and quantification methods (sherd count and rim-based MNI) resulted in a total of 8079 sherds, representing a minimum of 1130 individuals (Table 25). For most ceramic categories the degree of fragmentation (Orton, Tyers and Vince 1993, 169) is rather moderate, when compared to the other early modern sites discussed here. It explains why relatively many sherds could be reconstructed into (archaeologically-)complete vessels. Stoneware stands in contrast to this observation, with an average of 16.5 sherds/MNI. The processes behind this high degree of brokenness are not clear. Next to stoneware, another seven ceramic categories were identified. The greyware present in this assemblage can probably be considered as residual, dating to the older *Hof van Leughage*. Although greyware has been found in late 16th-century assemblages (e.g. Poulain, De Groote and De Clercq 2013, 3, table 1), it is generally accepted that these products go out of production in the 16th century, in some regions even earlier (Verhaeghe 1988a, 64). As no specific vessel forms could be identified with certainty (Table 24), this category will not be discussed any further. Redware, of a local or regional origin, is by far the best represented category. A minor fraction of redware has been imported, from the Lower Rhine area, Spain and Portugal (Table 27). The other ceramic categories are also imported, with stoneware from the Rhineland and Werra, produced somewhere along the river of the same name (Germany) or in Enkhuizen (the Netherlands). The exact provenance of the whiteware vessels remains unknown, although the Netherlands are the most likely candidate. The same is true of much of the tin-glazed wares, produced in multiple production sites across the Low Countries (e.g. Antwerp and Delft). However, Italian and Portuguese tin-glazed imports are also represented (Table 27). Finally, Chinese porcelain is the most exotic import category. The different categories described above meet the ever-increasing need for form diversification in early modern times (Table 24) (Verhaeghe 1988b, 108). When these forms are grouped into probable functions (Table 26), vessels related to food preparation are best represented, followed by tableware and those used in the kitchen or for stock. This functional distribution is in line with the presence of a kitchen, adjacent to the moat from which the assemblage was recovered (see '7.1.2 The *Blauwhof* estate'). The excavated latrines are less well translated into the material culture, as only 1.50% of the individuals are related to hygiene (11 chamber pots and 6 ointment jars).

Table 24 Quantification of ceramic forms (MNI).

	greyware	redware	imported redware	stoneware	tin-glazed ware	whiteware	werra	porcelain	total	% total
cooking pot		275				13			288	25.49
single-handled cooking pot		2							2	0.18
form						3			3	0.27
frying pan		31							31	2.74
lid		10				2			12	1.06
skillet		102							102	9.03
colander		14				8			22	1.95
jug		20		26	2	14			62	5.49
large carinated bowl		109							109	9.65
storage jar		12		3					15	1.33
bowl		1			13		1		15	1.33
covilhete					5				5	0.44
cup					22	1			23	2.04
dish		73					1		74	6.55
fluted dish					7				7	0.62
<i>Humpen</i>				5					5	0.44
plate		57	4		93		1		155	13.72
porringer		48			4				52	4.60
<i>púcaro</i>			1						1	0.09
chamber pot				2	4	5			11	0.97
ointment jar		2		1	2	1			6	0.53
bird pot		3							3	0.27
flowerpot		1							1	0.09
handled jar		9							9	0.80
marble				1					1	0.09
unknown	2	96		2	9	7			116	10.27
total	2	865	5	40	161	54	1	2	1130	100

Table 25 Quantification of ceramic categories.

	sherds	MNI	sherds%	MNI%	brokenness
greyware	10	2	0.12	0.18	5.00
redware	5976	865	73.97	76.55	6.91
imported redware	28	5	0.35	0.44	5.60
stoneware	660	40	8.17	3.54	16.50
tin-glazed ware	1059	161	13.11	14.25	6.58
whiteware	334	54	4.13	4.78	6.19
werra	2	1	0.02	0.09	2.00
porcelain	10	2	0.12	0.18	5.00
total	8079	1130	100	100	7.15

Table 26 Quantification by probable function.

	MNI	MNI%
food preparation	438	38.76
kitchen/stock	208	18.41
tableware	337	29.82
hygiene	17	1.50
other/unknown	130	11.50
total	1130	100

Table 27 Quantification of different provenances, present within the imported redware and tin-glazed ware.

imported redware						
	sherds	MNI	sherds%	MNI%	% of total sherds	% of total MNI
Lower Rhine	20	4	71.4	80.0	0.3	0.4
Spain	1	0	3.6	0	<0.1	0
Portugal	7	1	25.0	20.0	0.1	0.1
Italy						
Low Countries						
total	28	5	100	100	0.4	0.4
tin-glazed ware						
	sherds	MNI	sherds%	MNI%	% of total sherds	% of total MNI
Portugal	34	11	3.2	6.8	0.4	1.0
Italy	31	8	2.9	5.0	0.4	0.7
Low Countries	994	142	93.9	88.2	12.3	12.6
total	1059	161	100	100	13.1	14.3

In what follows, a selection of sherds is discussed, reflecting the diversity of fabrics, forms and types present within this assemblage.

7.4 Fabrics and typology

7.4.1 Local/regional redware

The redware category consists of 865 individuals, representing seventeen different forms: cooking pots, single-handled cooking pots, frying pans, lids, skillets, colanders, jugs, large carinated bowls, storage jars, a bowl, dishes, plates, porringers, ointment jars, bird pots, a flowerpot and handled jars.

There are 275 **cooking pots** present in this assemblage. Some common characteristics are a colourless lead glaze on the interior and traces of soot on the exterior. In a few cases, pouring lips are present (Figure 147:10). Where preserved, the base always has three solid feet. It sets the ceramics in the *Blauwhof* apart from sites in the coastal zone where thumb feet are most dominant in the late 16th-early 17th century (De Groote 2008a, 419). Two main types can be distinguished. A first one has a wide rim opening on an outstanding collar, a globular body and two opposing handles (e.g. Figure 147:10-11, 24 and Figure 148:2-3), whereas the second one has a straight-sided body with either a sickle-shaped (Figure 147:4-5) or a more simple thickened rim (Figure 147:1-3). These different rim types seem to be linked to the general design of the base, as no feet are found on cooking pots with the simpler thickened rims. A lack of feet can possibly be associated with the use of a kitchen stove, which was developed in the 1600s (Moulin 2002, 50). Finally, one vessel (Figure 147:6) can be regarded an intermediate of the two former types.

When the dimensions for these different types are calculated, an evolution toward more open forms can be observed (Table 28). Indeed, the width/height ratio of cooking pots in the St. Saviour abbey of Ennemy, dated 1450-1550, ranges between 1:0.9 and 1:1 (De Groote 2008a, 162, table 15), while the late 16th- to early 17th-century cooking pots found in several garderobe chutes of Middelburg's castle have width/height ratios of about 1:0.7 to 1:0.5 (De Clercq *et al.* 2007, 8; Poulain, De Groote and De Clercq 2013, 12, table 3). If this trend of continuously more open forms is followed, a relative chronology could be proposed where the globular vessels (Figure 148:1-2) are placed in the late 16th and first decades of the 17th century. As such, they predate those vessels with a larger rim diameter (Figure 147:1-3), which are to be situated in the later 17th century. The other types (Figure 147:4-6) may range in between.

Table 28 Width/height ratio of cooking pots (in mm).

	Figure 148:2	Figure 148:1	Figure 147:4	Figure 147:5	Figure 147:6	Figure 147:1	Figure 147:3
width	160	160	200	210	290	250	270
height	105	95	120	100	125	95	90
ratio	1:0.66	1:0.60	1:0.60	1:0.48	1:0.43	1:0.38	1:0.33

The sheer number of double-handled cooking pots stands in contrast to the amount of **single-handled cooking pots** counted in this assemblage. Two individuals could be distinguished, based on the obvious lack of a second handle and their jug-like appearance (Figure 148:4). The presence of soot and a tripod base, however, indicates that this form did not function as a container for liquids but was used in the preparation of liquid foodstuffs, an observation already made by Bruijn (1979, 69). A width/height ratio of 1:1.46 (rim diameter 140mm, height 204mm) significantly differs from the values described above (Table 28), and confirms the identification of these vessels as another form type. The only archaeologically-complete vessel has a colourless lead glaze on the interior and upper part of the exterior. Another form that was used in the preparation of food is the **frying pan**. Three main groups can be made on the basis of the rim design. A first group (Figure 148:16-17) has a heavy sickle-shaped rim and a sharp transition to a slightly-convex base, while a second group of vessels (Figure 148:18-21) is characterised by a slimmer, slightly-undercut rim profile. A final group of vessels has a more simple rim design (Figure 148:22-25). Some of these latter vessels (Figure 148:23-24) have a remarkable small rim diameter (140-50mm). The presence of soot on these pots indicates that they have been in contact with fire. However, their determination as frying pans may perhaps be questioned, because of the small rim diameters.

There is less doubt about the **skillets**, as they can all be identified by the presence of a spur right under the rim (Figure 148:5-11, 13-15). The sharp transition to a tripod base, the pouring lip and pinched handle can be considered as other diagnostic features. Only one vessel (Figure 148:12) seems to deviate from this general model and has a sickle-shaped rim with a smooth transition from body to base. This distinction is also clear from the width/height ratios. Whereas the first type (Figure 148:9, 13-14) ranges from 1:0.50 to 0.57 (rim diameter 120-50mm), the second type (Figure 148:12) is more closed, with a ratio of 1:0.72 (rim diameter 100mm).

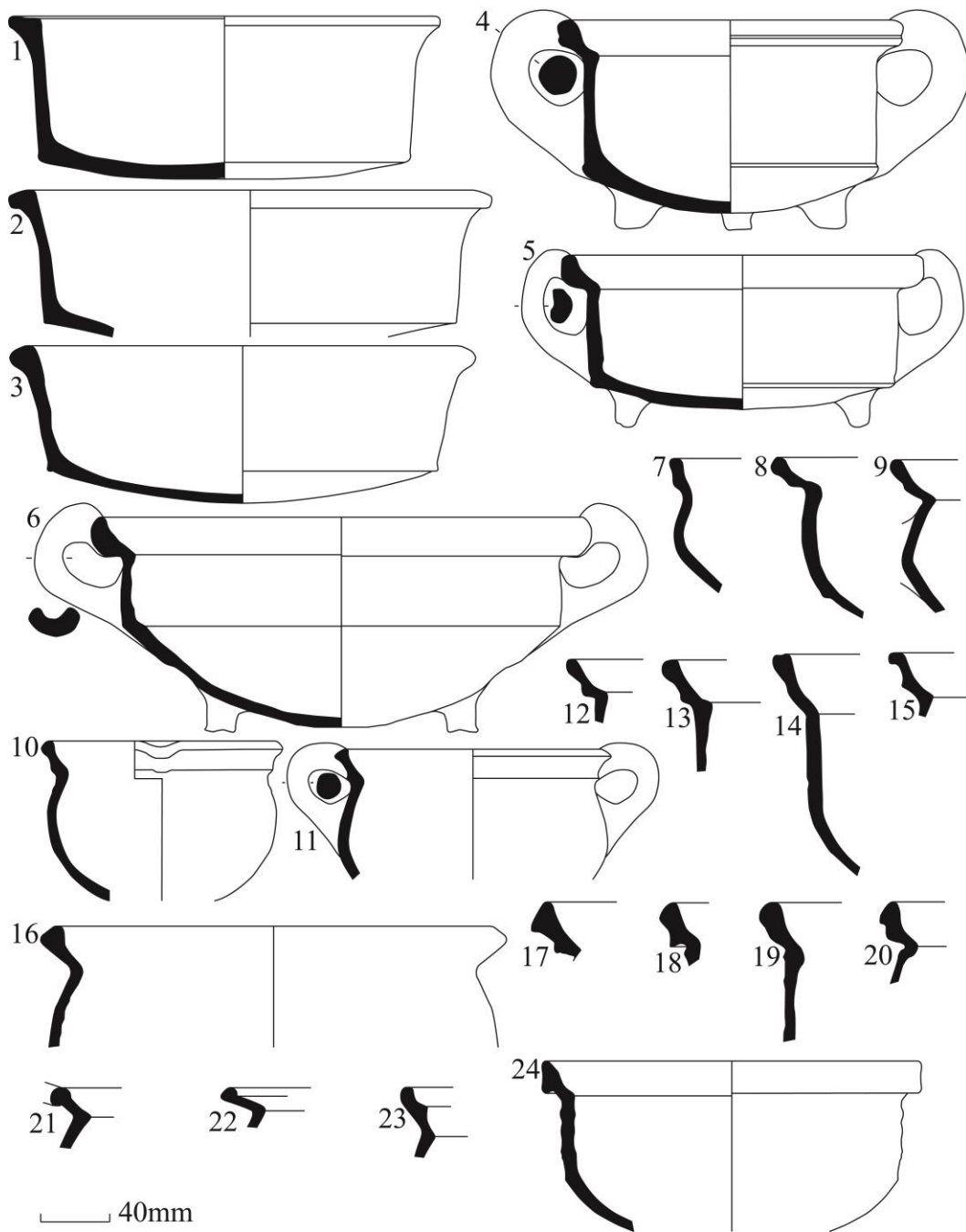


Figure 147 Local or regional redware pottery. 1-24: cooking pots.

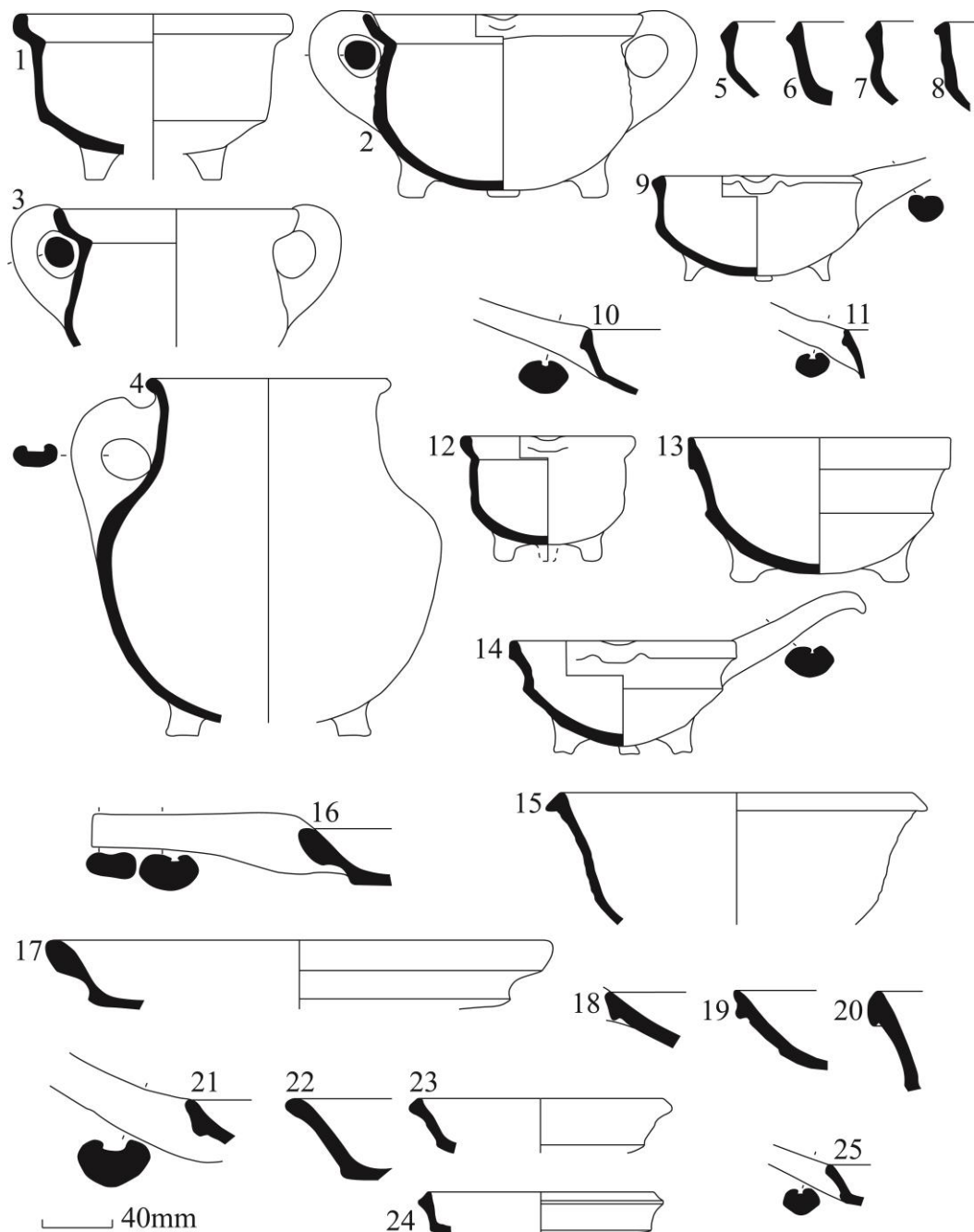


Figure 148 Local or regional redware pottery. 1-3: cooking pots, 4: single-handled cooking pot, 5-15: skillets, 16-25: frying pans.

The ten **lids** in this assemblage have a thickened (Figure 149:1) or outstanding rim (Figure 149:2-4) and are all externally glazed. The type with the loop handle (Figure 149:1) has been dated to 1575-1650 (Claeys, Jaspers and Ostkamp 2010, 550, cat. 105-6). The vessel with double fastening (Figure 149:5) forms a type in its own and is generally interpreted as an extinguisher.

No complete **jugs** were preserved. Their rims are always fully glazed and can be divided into three groups. A first type has a simple upright or slightly-everted rim on a ribbed or plain cylindrical neck (Figure 149:6-7), whereas the second one is characterised by a plain or ribbed rim on a narrow neck (Figure 149:8-9). A final type is related to the latter and

has a heavy profiled rim on a narrow neck (Figure 149:10). The 109 **large carinated bowls** present many different types (Figure 149:13-24, Figure 150:1). Common characteristics are the strap-shaped rim, pouring lip and glazed interior. Some vessels seem to have been equipped with two horizontal loop handles (e.g. Figure 149:12). One archaeologically-complete vessel is based on a footring. A rim diameter of 220mm brings its width/height ratio to 1:0.43. The large carinated bowl is traditionally associated with skimming cream of milk (Groeneweg 1992, 181; De Groot 2008a, 436). However, traces of soot occasionally occur, indicating multiple uses besides dairy processing (Groeneweg 1992, 181; Poulain *et al.* 2016, 41).

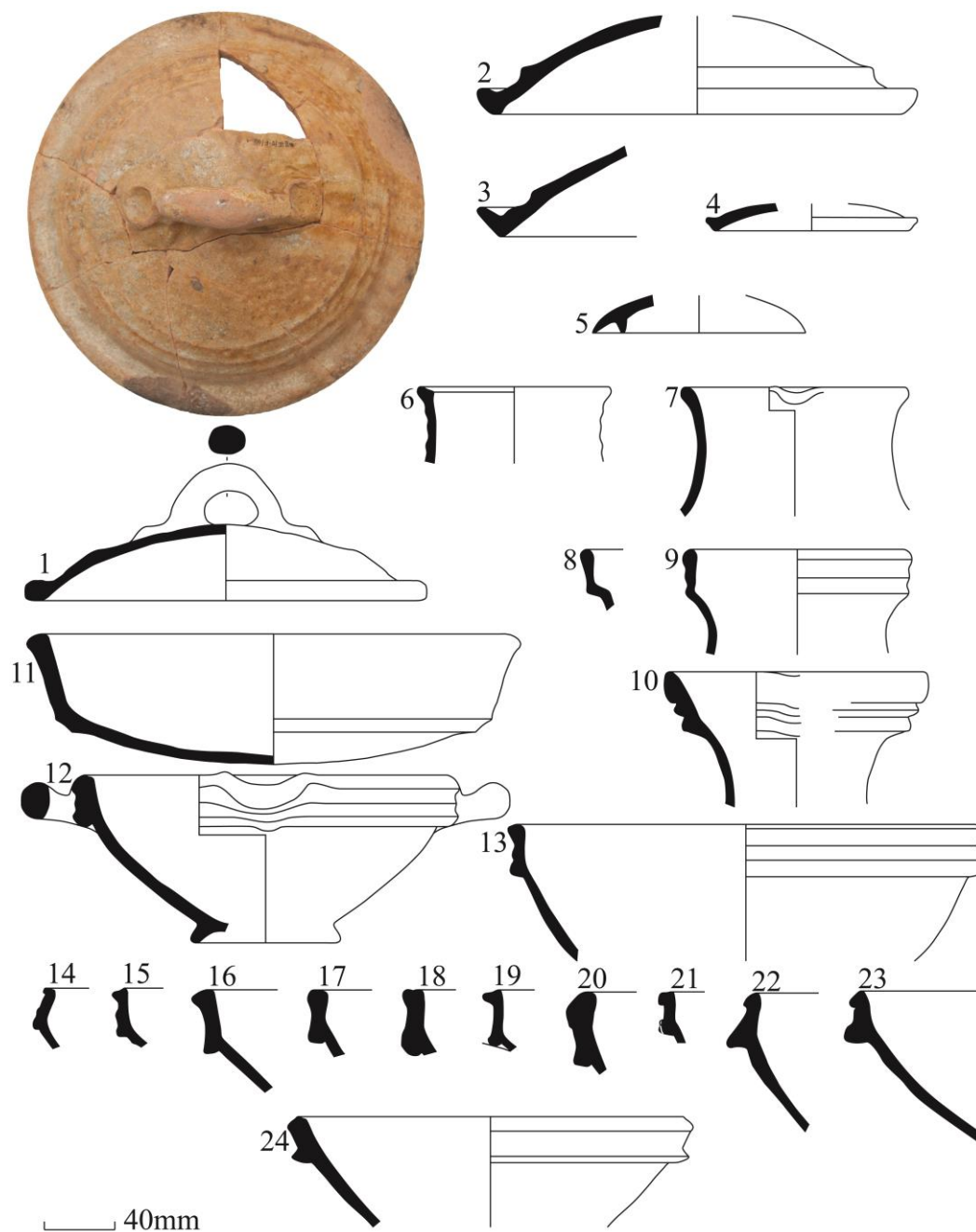


Figure 149 Local or regional redware pottery. 1-5: lids, 6-10: jugs, 11: bowl, 12-24: large carinated bowls.

Colanders are typologically associated to the carinated bowl, with similar rim types (Figure 150:2-7). A complete vessel differs in an overall application of lead glaze and a flat base (Figure 150:2). Whereas most vessels have large diameters (over 200mm), one rim fragment (Figure 150:5) belongs to a smaller type. Parallels for this small colander have been found in 16th- and early 17th-century assemblages in Middelburg (De Clercq *et al.* 2007, 16, fig. 11:90; Poulain and De Clercq 2015b, 83, fig. 13) and a 16th-century cesspit in Bruges (Hillewaert and Verhaeghe 1991, 212, fig. 173:8). The term **storage jar** (Figure 150:8-15) covers a diverse group of vessels, which is reflected in many different form and rim types. A first group consists of closed forms, with a spur right under the lip

(Figure 150:8) and a plain upright (Figure 150:9) or everted rim (Figure 150:10). A second group has a more open design, with a rounded rim (Figure 150:11), a spur under the lip (Figure 150:12) or an undercut sickle-shaped rim (Figure 150:13-15). Some vessels (Figure 150:13-14) could have a hemispherical body which rather makes them bowls. In their design, they strongly differ from the only, and complete, **bowl** in this assemblage (Figure 149:11) with its simple rounded rim, convex base and an overall green-coloured lead glaze.

The rims of **plates** (Figure 150:16-25) are either rounded or accentuated by a more profiled design. Plates are covered with lead glaze on the interior and are generally undecorated. One exception (Figure 150:21) has a marbled decoration using white slip. It is also the only archaeologically-complete vessel, with a flat base, a 190mm rim diameter and a height of 34mm. **Dishes** can be differentiated from plates by the lack of a break from lip to well (Figure 150:26-32, Figure 151:1-3). A small vessel (rim diameter 190mm, height 33mm) is based on a footring, whereas the larger dishes have a flat (Figure 151:2) or concave base (Figure 150:29, Figure 151:3). Width/height ratios for these larger dishes range from 1:0.18 to 1:0.20. Only one vessel (Figure 150:31) is decorated. Stripes of white slip are accentuated by green spots of copper in the lead glaze. A final form that is considered tableware, are the **porringers** (Figure 151:4-7). Two archaeologically-complete vessels (Figure 151:6-7) are based on a footring and have a rim that slightly bends inward. They can either have one or two horizontal loop handles and have a height that is always half that of the rim diameter.

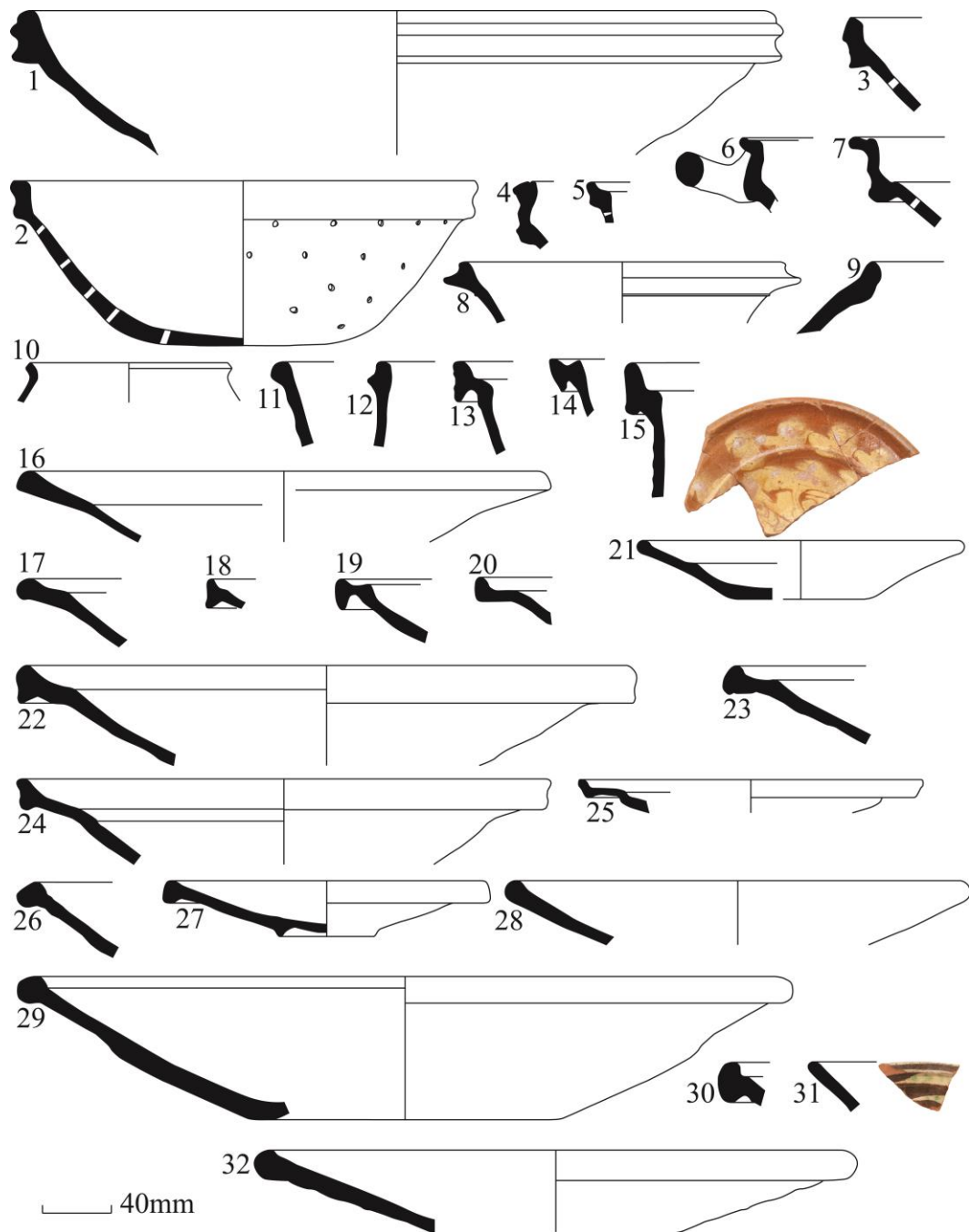


Figure 150 Local or regional redware pottery. 1: large carinated bowl, 2-7: colanders, 8-15: storage jars, 16-25: plates, 26-32: dishes.

The **bird pots** are a characteristic form of the Low Countries. Three individuals were identified. They all respond to a same basic type, which consists of a rounded body and a long narrow neck with a simple rim (Figure 151:11-15). One fragment has a pierced lug on the neck (Figure 151:13). This lug held a horizontal wooden perch, on which the bird could sit. The base always has an opening that was cut out before firing, and allowed to take eggs or young birds from the nest (De Clercq *et al.* 2007, 12). However, one vessel (Figure 151:15) also has an opening in the side. Multiple holes permitted to position the pot in different directions on the *Blauwhof's* outside walls. Starlings apparently prefer to

orientate their nests to the south or east, the least rainy sides, free of the dominant south-westwind and heat of the midday sun (Groeneweg 1987, 165; Swinnen 1989, 45). Another particular trait is that several fragments (Figure 151:13-15) are covered with a green-coloured lead glaze, while another fragment (Figure 151:12) is partly coated with a colourless lead glaze. Glazing is not very common with bird pots (De Clercq *et al.* 2007; 14, fig. 10:68-9). It must have rendered a colourful aspect to the *Blauwhof's* walls.

Another form that is traditionally considered unglazed is the **flowerpot**. Only one individual was counted (Figure 151:8). The flowerpot has a rounded, thickened rim, with two spurs accentuating the transition to a conical body, and two loop handles. Handles are what characterises the next form, the so-called **handled jars** (Figure 151:9-10). However, for the nine identified individuals handles were not preserved. Handled jars were used to transport hot embers. This function is clearly evidenced by the perforations in the inwardly-bent rim, allowing the heat to come through. The exterior is always glazed. Occasionally, also the interior can be covered in a lead glaze. The two **ointment jars** in this assemblage have a similar lead glaze all over. Their design (Figure 152:1) is based on that of maiolica *albarelli*, with a simple everted rim on a cylindrical body. A total of 96 individuals remained undetermined, largely due to their fragmentary state. Some of these **unknown** vessels are depicted here. A first one (Figure 152:2) is a shallow, open form that is internally glazed. The second unidentified vessel (Figure 152:3) is deeper and fully glazed. A final form (Figure 152:4) has a closed design with an inwardly-bent rim and is unglazed.

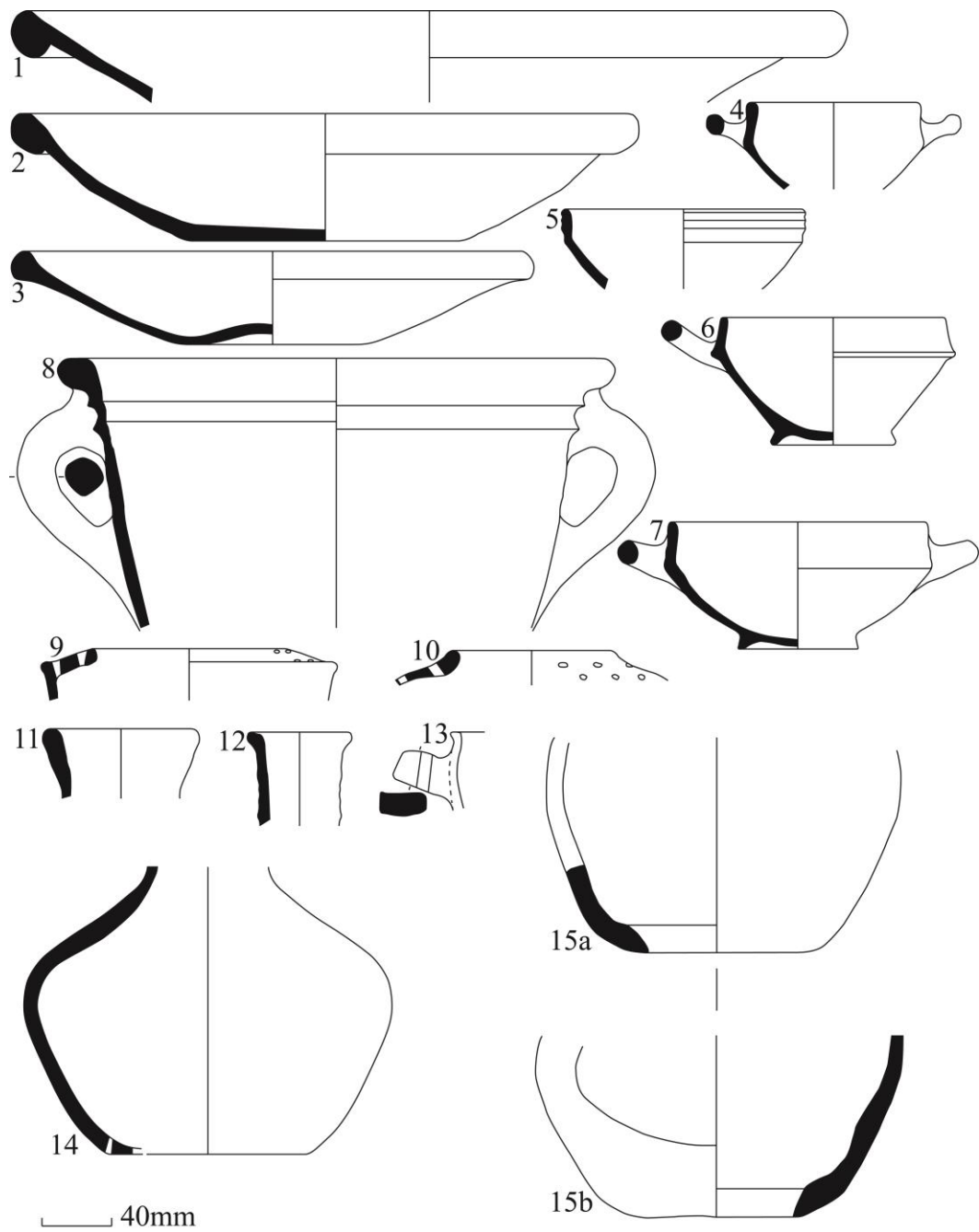


Figure 151 Local or regional redware pottery. 1-3: dishes, 4-7: porringers, 8: flowerpot, 9-10: handled jars, 11-15b: bird pots.



Figure 152 Local or regional redware pottery. 1: ointment jar, 2-4: unknown; Lower Rhine redware pottery. 5-6: plates; Rhenish stoneware. 7-8: chamber pots, 9: ointment jar, 10: ointment jar?, 11-15: *Humpen*.

7.4.2 Imported redware

Two of the depicted imported redware vessels originate from the Lower Rhine area and are both **plates**. A first one (Figure 152:6) is decorated by green-coloured lines, waving through two sets of concentric slip circles. This decoration pattern is generally dated to 1650-1750 (Jaspers, Eijskoot and Esser 2015, 136, cat. 3). The second plate is fully covered by a white slip layer on which a green-coloured decoration is applied (Figure 152:5). A sgraffito pattern of dots brings out the red colour of the fabric. Similar plates have been dated to 1700-1800 (Jaspers, Eijskoot and Esser 2015, 136, cat. 5), which makes this a very early example.

A body sherd of a Spanish **olive jar** complements these redware imports. Due to the fragmentary nature of this sherd, it cannot be attributed to the more rounded or elongated type in use in the 16th and 17th centuries. Several production centres seem to be

involved in the production of these jars, not only in Seville, but also in its surroundings and on the coast to the south of this city (Gutiérrez 2000, 60). We will therefore refrain from assigning a specific provenance.

A final category are the Portuguese redwares. These will be discussed further down below, together with the Portuguese faience.

7.4.3 Stoneware

All major stoneware production sites for the late 16th and 17th century are represented: Siegburg, Raeren (or its surrounding hamlets), Langerwehe and Westerwald. A small number of these stoneware vessels serves hygienic purposes. Two types of **chamber pots** were found. A first one (Figure 152:7) has a simple rim on an outstanding collar and an overall salt glaze. The second chamber pot (Figure 152:8) is more decorated with two clawing lions and a medallion in between, featuring a tippler and the proverb [...] ER DRINKT UND DOCH KEINEN WEIN. This form and decoration are typical of Westerwald productions of the second half of the 17th century (Jaspers, Eijskoot and Esser 2015, 20, fig. 7). Only one **ointment jar** was identified with certainty (Figure 152:9). A small rim fragment (Figure 152:10) might perhaps also be interpreted as such. Both have an overall salt glaze and brown engobe.

Most vessels are related to drinking. A set of beer mugs, so-called *Humpen*, have a cobalt-blue decoration, indicating a Westerwald origin (Figure 152:11-14). Some are more elaborately decorated with harts and tulips (Figure 152:11-12), an incised draughtboard pattern with a frieze of linked-up diamonds (Figure 152:13) and the addition of purple. The use of manganese purple once again points to the second half of the 17th century (Hurst, Neal and van Beuningen 1986, 222; Gaimster 1997, 525). One vessel (Figure 152:15) is not decorated, except for the overall colourless salt glaze and small incision under the rim. Its provenance and dating remain unspecified.

The stoneware **jugs** in this assemblage fall into two chronological groups. A first group can be identified with Raeren productions of the later 16th century (Figure 153:1-5). For example, a vessel with a lead gauge (Figure 153:1) has parallels in the last quarter of the 1500s (Gawronski 2012, 177, cat. 354; 318). Also a globular jug with wide cylindrical neck (Figure 153:5) has been dated to the second half of that century (Reineking-von Bock 1986, 279). A similar dating can be assigned to several of the medallion jugs. One vessel (Figure 153:2) bears the escutcheon of ARNOLT VAN REIFFERSCHIET GENAT MEI RAEDT (Arnold Reiferscheid genannt Meirode [Kohneman 1982, 63]). The medallion is dated 1586 and reminds of the attack led by this Reiferscheid, burning the village of Raeren a century before, c. 1450 (Schmitz 1880, 80). Another medallion jug reads WOLF VOM OBERSTEIN ANNO 1591 (Schmitz 1880, 79) and also a Peasant Dance panel jug points to that last decade of the 16th century (Hurst, Neal and van Beuningen 1986, 202, fig. 97.314). A panel

jug depicting the seven electors of the Holy Roman Empire, is mainly dated to the first decade of the 17th century (Hurst, Neal and van Beuningen 1986, 204) and could thus provide a closing date for this first group of vessels. A second group consists of Westerwald jugs of the second half of the 17th century (Figure 153:6-10). The decoration with rosettes (Figure 153:6-7) on a cobalt-blue background is consistently dated between 1650 and 1700 (Klinge 1996, 45-46; de Boer, Vanden Borre and Gerrets 2010, 295, cat. 36; Vos 2012, 118, fig. 7.9). The remaining jugs (Figure 153:8-10) are more sparsely decorated, with cobalt-blue lines on their cylindrical necks.

The three **storage jars** all belong to the same type, with a thickened rim, two horizontal band-shaped handles, a broad indented footring and wavy bands incised on the shoulder (Figure 154:1). It are characteristics which are diagnostic for 17th-century Langerwehe jars (*Baaren*), used in the preservation of fruit and vegetables or in the storage of butter (Gaimster 1997, 186).



Figure 153 Rhenish stoneware. 1-10: jugs.

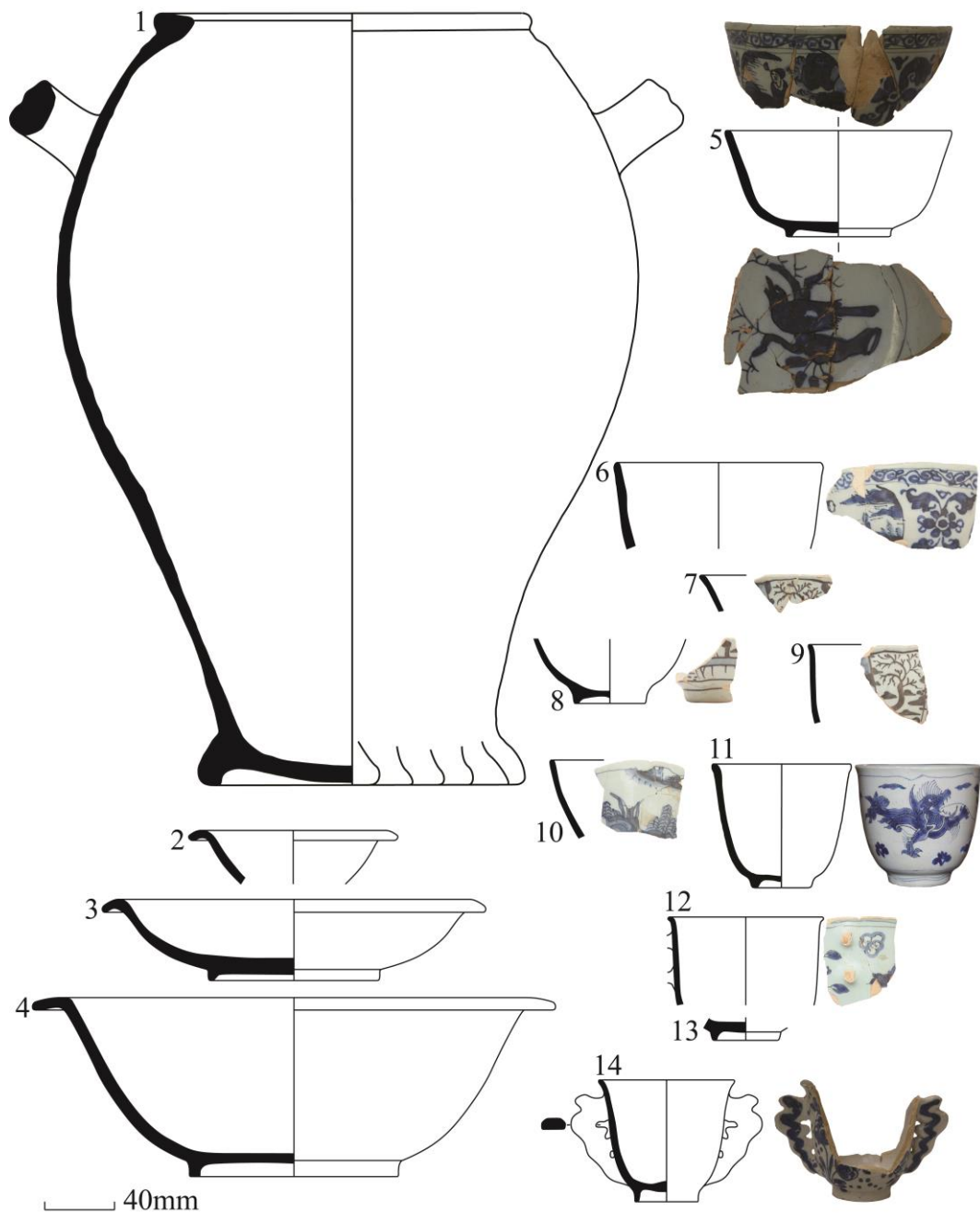


Figure 154 Rhenish stoneware. 1: storage jar; Low Countries tin-glazed ware. 2-7: bowls, 8-14: cups.

7.4.4 Tin-glazed ware

Tin-glazed ware (maiolica and faience) is the most important import category in this assemblage. The majority originates from different production sites in the Low Countries, with the **plate** as the most dominant form type. As we have seen for the stoneware, the tin-glazed ware once again falls into two distinct chronological groups. A first group of plates (Figure 155:3-11) dates to the late 16th and early 17th centuries. They are categorised as maiolica, with an opaque tin glaze on the interior and an external lead glaze. The only

archaeologically-complete vessel (Figure 155:3) has a thickened rim and is based on a perforated footring. The plate is decorated with stylised floral motives, using yellow, orange, green and blue. Similar patterns have been found on Antwerp productions, dated to the second half and last quarter of the 16th century (Korf 1981, 99, fig. 173; Dumortier 1992, 110, fig. 2; Veeckman and Dumortier 1999, 168, cat. 11). A second plate is characterised by an orange and blue zigzag line on the rim. Once again, the combination of blue and orange is known on Antwerp productions from the second half of the 16th century (Veeckman and Dumortier 1999, 145; 146, fig. 10; 165, cat. 8; 191, cat. 50). Similar patterns have been found in assemblages dating to the late 16th and early 17th century (Dumortier 2002a, 41, fig. 19; De Clercq *et al.* 2007, 14, fig. 10:71; Poulain, De Groote and De Clercq 2013, 15, fig. 11:10). A final group of polychrome maiolicas can also be dated to this period, as the application of multiple colours is on the wane after 1640 (Ostkamp 2014, 28). The rims have been decorated with floral (Figure 155:5) or geometrical (Figure 155:6) motives, while two base fragments have an *a frutti* decoration (Figure 155:7) or depict a human figurine (Figure 155:8). Next to these polychrome maiolicas, a set of large vessels (Figure 155:9-11) continues to have an external lead glaze. The interior, however, is covered in a plain, undecorated tin glaze. They date to the second half of the 17th century and, as such, constitute a second chronological group. With their thickened rims and accentuated transition to the base, they distinguish themselves from the plates which have an overall tin glaze (Figure 156:1-6). These are generally characterised by a break from lip to well and a flat base, although a single vessel (Figure 156:6) is still based on a footring. Decorated wares continue to be produced in the second half of the 17th century. A first vessel (Figure 156:10) resembles the group of plates with an overall tin glaze, in its simple rim design, flat base and break from lip to well. However, it differs in the application of a stylised landscape and figurine on both lip and well. A parallel is dated 1650-75 (Gawronski 2012, 262, cat. 893; 325). Other vessels follow Chinese models more strictly in form and/or decoration. For example, one plate depicts a Chinese figurine in a six-pointed star (Figure 156:7). The exterior is also decorated, with alternating crosses and circles, and bears traces of sagger pins. It is the only vessel with a potter's mark, in particular that of the faience factory *De Pauw* (The Peacock) next to which the number twelve is added. This factory was founded in 1651 and was located at the Koornmarkt in Delft (the Netherlands) (Lahaussois 2008, 220; Oosterbaan and Griffioen 2016, 425, 426, fig. 20.77). In view of the Jewish roots of the Ximenez family, the six-pointed star could perhaps be associated with the Star of David. Interestingly, a parallel for this decoration pattern was found on a faience plate during the 1981-2 excavations of a Jewish household in Amsterdam's *Vlooienburg* (the present *Waterlooplein*) (pers. comm. Ranjith Jayasena). However, that find put aside, the ceramic material provided no other indications of a Jewish identity. A kosher diet did emerge in the faunal record and the presence of pewter seals, attached to kosher meat (Gawronski, Jayasena and IJzerman 2016, 46). The use of the Star of David in the 17th century needs further research. An association between this

particular decoration pattern and a Jewish identity therefore remains preliminary. Two other plates (Figure 157:1-2) resemble this *De Pauw* production in technique, form and in their external decoration. They differ, however, in their compartmented rims and style of the central motive (bird in Chinese garden, Figure 157:1). Although the plates can be dated between 1650-75 (Jaspers, Eijskoot and Esser 2015, 150, cat. 36), they imitate older porcelain productions. A following vessel (Figure 156:8) is also produced in saggars, and depicts a Chinese figurine in an oriental landscape. The lip is divided into compartments, filled in with geometrical and floral motives. Its rim design resembles that of the vessel depicted in Figure 156:9, although the latter stands out by the small rim diameter (120mm). A final plate (Figure 157:3) has no oriental references. In its design, it recalls the plates with an internal plain tin glaze and external lead glaze (Figure 155:9-11). This time, the lip is decorated with lacework in purple and yellow, while the motive on the well refers to the Parable of the Sower. It must be dated to the late 17th century or (very) early 18th century (Tietzel 1980, 127-9; Kleij 2007, 39; Gawronski 2012, 242, cat. 758; 243, cat. 760; 323; Jaspers, Eijskoot and Esser 2015, 146, cat. 31).

Only four tin-glazed **porringers** have been counted in this assemblage. Three of them are undecorated. A complete vessel (Figure 155:1) has a simple rounded rim, with a flat base on a footring and two profiled, perforated handles. The single decorated porringer (Figure 155:2) has a flower painted on the inside, and several lines departing from a central perforation in the five-lobed handle. It can be dated to the first quarter of the 17th century (Korf and Hijmersma 1971, 32; 33, cat. 16). The **bowls** in this assemblage come in many different sizes (rim diameters from 120 to 300mm). A first group of vessels (Figure 154:2-4) is fully covered in an undecorated tin glaze and is furthermore characterised by an everted rim and base on a footring. Two archaeologically-complete bowls display the occurrence of shallow (rim diameter 220mm, width/height ratio 1:0.20, Figure 154:3) and deeper types (rim diameter 300mm, width/height ratio 1:0.34, Figure 154:4). The other bowls (Figure 154:5-7) are decorated with an oriental design. The exterior of two similar vessels (Figure 154:5-6) is painted with a geometrical frieze, under which medallions with Chinese figurines in a landscape are separated by floral motives. The inside bears the depiction of a bird on a branch. A third bowl (Figure 154:7) is decorated with a tree against a background of a clouded sky and has a faceted design. In its decoration and angular body, the bowl closely resembles the rim and base fragment of a **cup** (Figure 154:8-9). The majority of cups, however, responds to a type with simple upright or slightly-everted rim, base on a footring and a single vertical loop handle (Figure 154:10-13). The vessels are always decorated in an oriental style, either with landscapes (Figure 154:10) or Chinese lions (Figure 154:11). One cup stands out, both in decoration and design (Figure 154:14). The exterior is characterised by flowers, dots to fill up the empty space and wavy blue lines on two lobed vertical handles. This particular handle design has parallels in the last quarter of the 17th century (Gawronski 2012, 248, cat. 793; 324).



Figure 155 Low Countries tin-glazed ware. 1-2: porringers, 3-11: plates.



Figure 156 Low Countries tin-glazed ware. 1-10: plates.



Figure 157 Low Countries tin-glazed ware. 1-3: plates.

Two forms related to hygiene are the **chamber pot** (Figure 158:4-6) and **ointment jar** (Figure 158:7). Chamber pots always have a plain tin glaze all over. An archaeologically-complete vessel (Figure 158:4) has a simple rim on an outstanding collar, with a strap handle and flat base. The ointment jar, by contrast, has a convex base and is decorated with parallel blue lines and a series of dots, centrally positioned on the body. The assemblage counts two tin-glazed **jugs**. One (Figure 158:1) originates from the Low Countries. The vessel is nearly complete, only the base is missing. This jug, with two loop handles attached to an everted rim, bears close resemblance to the so-called altar vases

of the 17th century. However, the Chinese decoration makes it rather doubtful that this particular vessel was used as such (Korf 1981, 187). Korf (1981, 187, fig. 501, 502) dates parallels to the second quarter of the 17th century. This dating should perhaps be stretched into the second half of that century. A second jug (Figure 158:2) is also relatively-well preserved. This time, only the handle is lacking. The vessel is fully covered in a tin glaze and has an outstanding rim on a cylindrical body with highly-profiled footring. A final form is the **fluted dish** (*crepina*), also completely covered in a plain tin glaze (Figure 158:3). The provenance for both the jug and fluted dish must be sought in Northern Italy (Faenza?). Although the dating of these particular vessels is not entirely clear, most Italian faience imports are to be dated in the first half of the 17th century (Thijssen 1991, 28; Bartels 1999, 226).

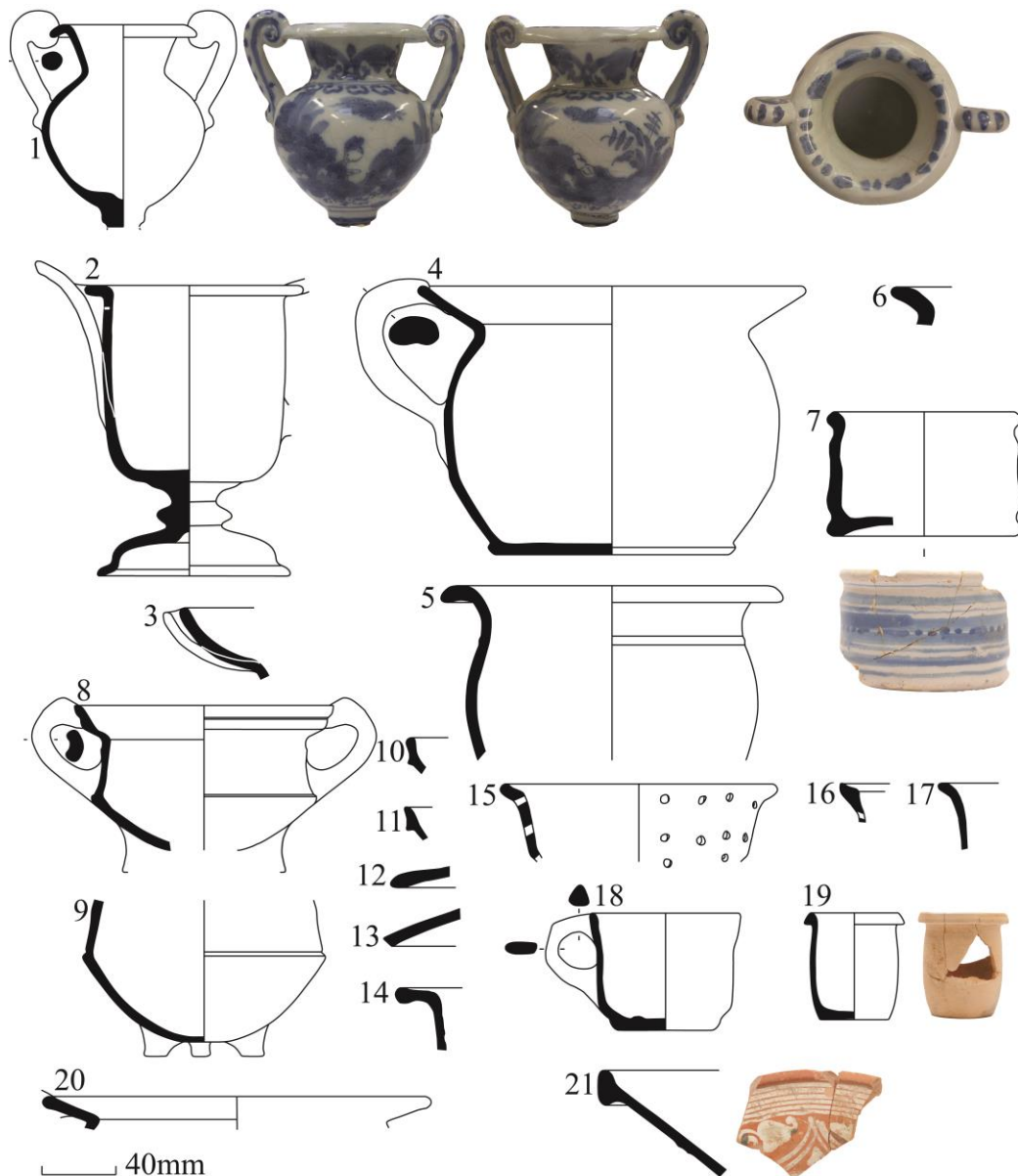


Figure 158 Low Countries tin-glazed ware. 1: jug, 4-6: chamber pots, 7: ointment jar; Italian tin-glazed ware. 2: jug, 3: fluted dish; imported whiteware pottery. 8-11: cooking pots, 12-13: lids, 14: form, 15-16: colanders, 17: jug, 18: cup, 19: ointment jar, 20: chamber pot; Werra. 21: plate.

7.4.5 Whiteware

Fifty-four whiteware individuals were counted in this assemblage, most likely originating from the (Western) Netherlands. **Jugs** are the most dominant form. They all respond to a basic form type, with a slightly-everted simple rim (Figure 158:17). The glaze is generally copper-green on the exterior, while a colourless lead glaze gives the interior a yellow colour. This decoration pattern is also applied on many of the **cooking pots** (Figure 158:8-11). They are characterised by a profiled upright rim on an outstanding collar and a straight-sided body with a sharp transition to a convex tripod base. One vessel

(Figure 158:8) is archaeologically complete, with a rim diameter of 140mm and a height of 90mm. The resulting width/height ratio of 1:0.64 is in line with the values of Table 28. However, the unusual form of these whiteware cooking pots does not suggest that they were locally made, using imported white clay, but that they were rather imported as finished products. The **lids** used to cover these cooking pots are only fragmentarily preserved. As with their redware counterparts, they are externally glazed, either using a copper-green (Figure 158:12) or colourless lead glaze (Figure 158:13). The **form** (Figure 158:14) is also related to food preparation, and in particular to the making of pastries. These vessels are always fully glazed and easily recognisable by their outstanding rim, decorated with small incisions on the lip. Eight **colanders** can be brought back to two types. One type has an everted rim on a straight-sided body and sharp transition to the base (Figure 158:15), the other is characterised by a thickened, flattened rim (Figure 158:16). Most particular about these colanders is that they are always fully covered in a copper-green lead glaze, in contrast to most of the other whiteware vessels. The only **cup** (Figure 158:18) in this assemblage has a colourless lead glaze all over, with a flat base and a pinched handle where this is attached to the rim. Parallels are dated to the 17th century and its provenance has been assigned to Gouda, or the Western Netherlands in general (Dijkstra, Houkes and Ostkamp 2010, 133, fig. 4.47; Gawronski 2012, 236, cat. 710; 323). Two final forms associated with hygiene are the **chamber pot**, identifiable by its outstanding rim and strap-shaped handle (Figure 158:20), and the **ointment jar** (Figure 158:19). The latter has a triangular rim with a flat base and a colourless lead glaze on the inside.

7.4.6 Werra

One **plate** originates from one of the production sites along the Werra river or from Enkhuizen (Figure 158:21). It is characterised by a set of concentric slip circles followed by geometrical and floral motives. Some highlights have been applied in green. Remarkably, no traces of a lead glaze were preserved. The main period of export for this ware type is generally placed between 1580-1630 (Hurst, Neal and van Beuningen 1986, 244). Werra ceramics are often associated with lower and middle classes (van Gangelen 1995; Ostkamp and Venhuis 2009, 49). This might well explain why just one vessel was found.

7.4.7 Porcelain

As mentioned above, the porcelain from the *Blauwhof* has already been studied Bruggeman (2015). We will therefore refrain from any detailed discussion. Bruggeman (2015) mentions multiple fragments dating to the 17th century. However, only those

vessels which were found in the [E] fill of the moat were incorporated in this study, in order not to overrepresent the porcelain in this assemblage.

Statements on the value and meaning of the few porcelain sherds in this assemblage are problematic, given that there is hardly any quantified material available for the period concerned. However, the general trend is that porcelain in 17th-century Flanders is only present in (very) low numbers and on a limited number of sites (pers. comm. Jordi Bruggeman).

7.4.8 Portuguese ceramics

7.4.8.1 Redwares

Portuguese redwares were identified for the first time in Belgium in Mechelen (Malines) during the excavation of a cesspit in 1971 (Vandenberghe 1972, 128-130, 138, fig. VIII:63). The exact context of this find remains unclear, however, situated right next to the St. Rumbold's Cathedral a high-status household can be expected. Moreover, the town of Mechelen was home to many high officials in the period of Spanish rule (Bartels 2003, 77-78). In Antwerp, sixteen fragments of early modern Iberian red unglazed earthenwares, found on six different sites, have thus far been published (Veeckman 1994). They start appearing in the material record from the second half of the 16th century onward (Veeckman 1994, 16). However, delineating this period of import more clearly has thus far been unsuccessful. Of the six sites, two can be considered as particularly rich environments, the 'Steen' (castle) and the 'Bishop's Palace' (Veeckman 1994, 15). A third one would be related to wealthy merchants (Bartels 2003, 73). Two final Portuguese redware finds are a flask in Ostend (Pieters *et al.* 1995, 197, fig. 19), and an incense burner in an early 16th-century assemblage at the Carmelite priory of Aalst (De Groote 2008b, 39-40, fig. 14).

These find locations confirm Newstead's interpretation of Portuguese redwares as high-value commodities in a European trading network (2014, 185). This status is often illustrated by Philip II of Spain gifting Portuguese redware vessels to his daughters, after his visit of Estremoz in 1581-2 (Ostkamp 2003, 16). Portuguese redwares would derive their main value from the excellent smell and taste of the clay, when serving water (Gutiérrez 2007, 73). For our regions, a possible relation to drinking warm wine or chocolate has also been suggested (Newstead 2014, 98). A final point of attraction was situated in the supposed medicinal qualities of the red clay. *Bucarofagio*, or the eating of drinking vessels (*púcaros*) (de Vasconcellos 1921, V), was a peculiar craze at the Spanish court, as it was believed to be healthy (Gutiérrez 2000, 76; Newstead 2014, 194). Iconic is the *púcaro* offered to Infanta Margarita Teresa in the painting *Las Meninas* by Diego Velázquez (1656) (Gutiérrez 2000, 78; Newstead 2014, 95). The consumption of the finds

at the *Blauwhof* seems highly unlikely, due to their well-fired fabric and the not-easily digestible quartz grains.

In total, seven sherds of redware pottery were found (Figure 159:6-11), of which one rim fragment represents the only counted individual. It concerns a *púcaro* (Figure 159:6), characterised by a triangular rim on a cylindrical collar decorated with a combination of inlaid quartz and diagonal incisions, a common decoration pattern (Gutiérrez 2000, 76, fig. 2.52; Newstead 2014, 112). Its fabric is hard, beige to orange-red in colour, with the inclusion of sandy particles and relatively many, large pieces of grog. The vessel most likely originates from the Lisbon area (Newstead 2014, 285). A following fragment (Figure 159:7) is part of a long vertical loop handle and could have a similar provenance, as its fabric resembles that of the *púcaro* in texture, colour and in the presence of sandy and grog inclusions. Two other handle fragments (Figure 159:8-9) definitely belong to another vessel, as their fabric is very hard and fine, bright red in colour, with the possibility of a grey core, and has small sandy inclusions. An exact provenance remains however unspecified. The same goes for a body sherd (Figure 159:10), which constitutes yet another fabric type that is hard, brown in colour and rather coarsely tempered. A final fragment (Figure 159:11) differentiates itself from the other Portuguese redwares in that the in- and exterior is black, with incisions bringing the red fabric to the fore. This fabric is purple-red in colour and has some lime? inclusions.

7.4.8.2 Faience

A second group of Portuguese imports is the tin-glazed ware or faience. Their main period of import into the Low Countries starts around 1610 (pers. comm. Nina Linde Jaspers) and ends some 50 years later, c. 1660 (Casimiro 2011, 150). In Flanders, Portuguese faience was allegedly found in Bruges and on different sites in Antwerp (Bartels 2003, 72, fig. 4; 73). This ceramic category is also present at the castle site of Middelburg-in-Flanders (see '4.3.4.6.3 Portuguese pottery').

The vessels at the *Blauwhof* most likely originate from Lisbon, since no imports from other production centres are currently known in the Low Countries (Claeys, Jaspers and Ostkamp 2010, 140). Their fabrics do indeed match Lisbon productions, described as *white buff yellowish, and somewhat pinkish in the less quality items, with their texture compact and homogenous and the little amount of inclusions (mainly quartz and micas), naturally occurring in the clay* (Casimiro 2011, 21). Other than in fabric, Portuguese faience also distinguishes itself from Low Countries tin-glazed ware in the different decoration, form and glazing.

Most vessels are identified as **plates**. A large plate (Figure 159:1) has a rim diameter of 380mm and can be dated between 1610-35, a period where Chinese models are faithfully reproduced (Casimiro 2011, 145). The well is decorated in a floral theme, while the lip is divided into compartments, depicting gourds and *aranhões*, amongst other things. These so-called *aranhões*, resembling the legs of a spider, reinforce this dating, as they start to

be used around 1610 (Casimiro 2011, 133). Other plates have a similar design but are smaller in size. One vessel (Figure 159:2) has a geometrical pattern on the lip, while another (Figure 159:4) is characterised by a scalloped rim. The latter fragment is unfortunately too small to identify the decoration pattern. A final plate has no break from lip to well (Figure 159:3). It is decorated with large leaves, which are typical of the period 1635-60, when Portuguese faience loses some of its decorative refinement (Casimiro 2011, 24, fig. 21; 146; 147). A parallel has been found in Vlissingen, the Netherlands (Oosterbaan and Griffioen 2016, 421; 422, fig. 20.72; 511, cat. 81). A final open form, with straight sides on a flat base with footring, is the *covilhete* (Figure 159:5). Its interior is decorated with a floral motive in cobalt blue and manganese black. Parallels are recorded for the São Francisco convent in Lisbon and dated to the second half of the 17th century (Teixeira, Bento Torres and Bettencourt 2015, 22-23, 24, fig. 2.4). *Covilhete* is a term used to refer to a small sweets bowl, which was used to serve a specific type of milk dessert with the same name (Casimiro 2011, 130). The Portuguese terminology was retained in this case, since bowl does not really entail the same meaning.

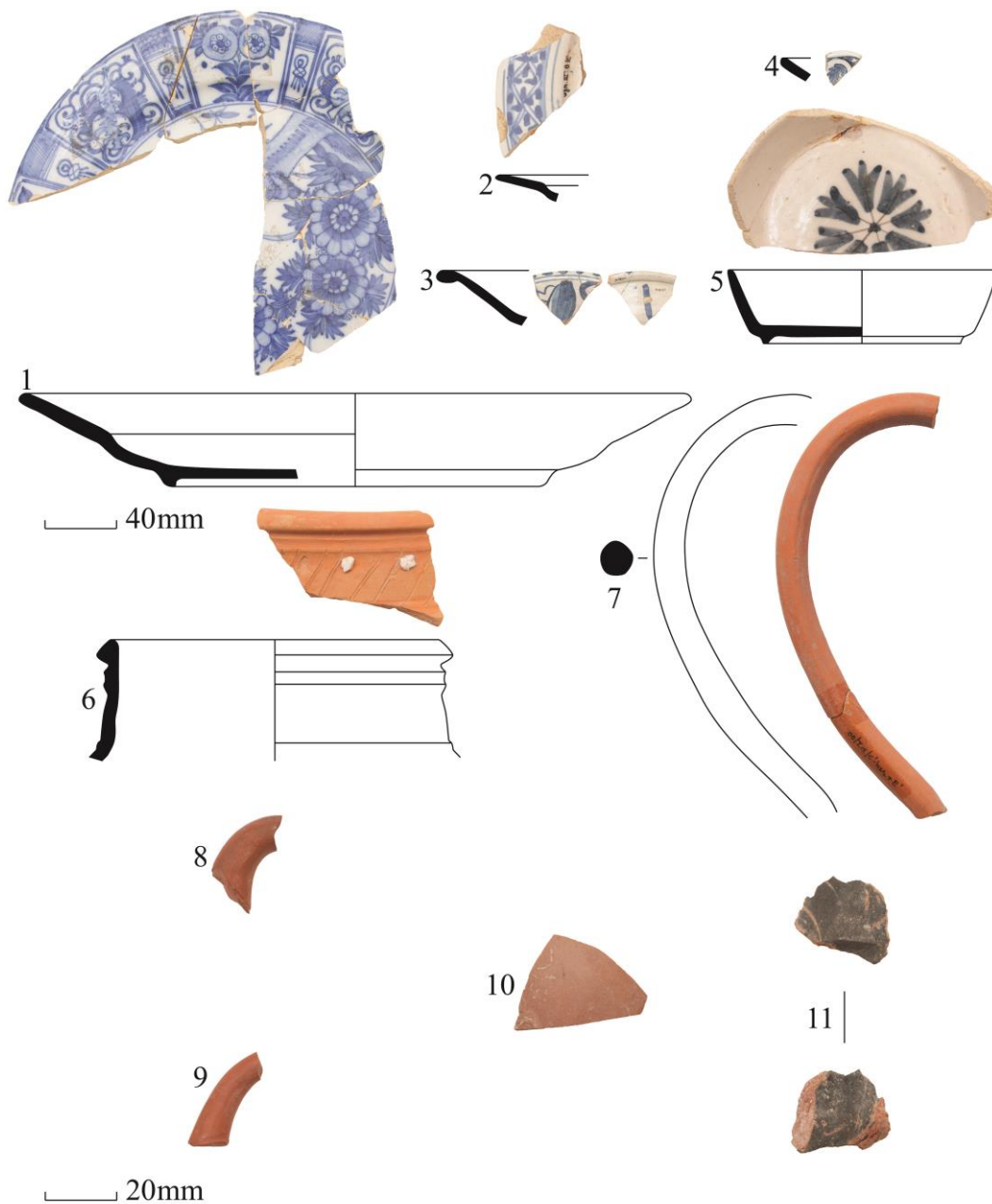


Figure 159 Portuguese tin-glazed ware. 1-4: plates, 5: *covilhete*; Portuguese redware pottery. 6-10: *púcaros*, 11: unknown.

The distribution of Portuguese redwares and faience in Belgium (Figure 160) shows a remarkable pattern that clusters around the region of the Zwin-Scheldt area. Redware vessels were found in Aalst and Mechelen, to the south of the Scheldt, while the faience in Bruges, Middelburg and Vlissingen (the Netherlands) is situated to the north of that river. Along the Scheldt river, both categories occur. Ostend forms an exception, with a redware find to the north of the Scheldt. Whether this distribution pattern has historical meaning or merely reflects the current state of research, is yet to be seen.

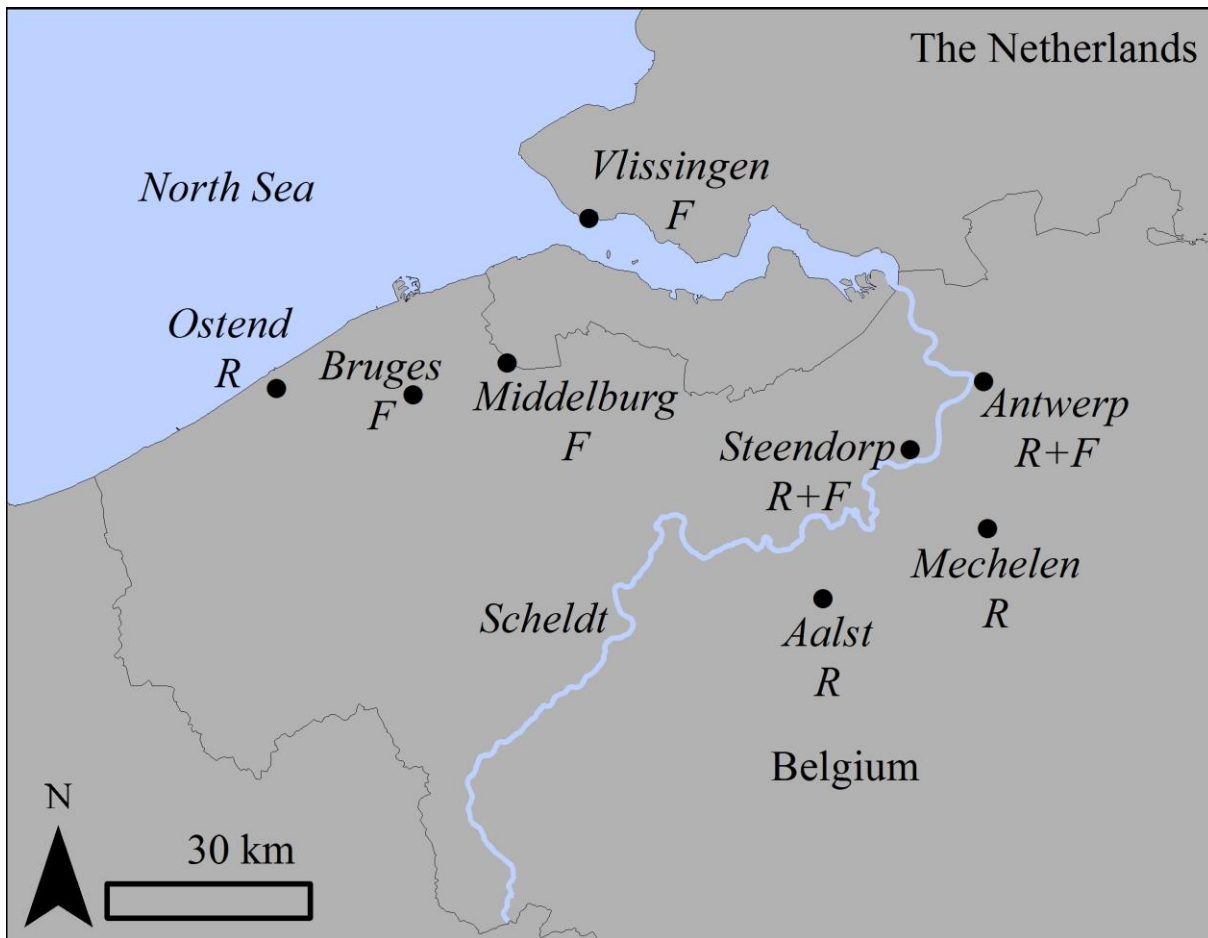


Figure 160 Distribution of Portuguese redwares (R) and faience (F) in Belgium (adapted from Bartels (2003, 72, fig. 4), supplemented with new data).

7.5 Discussion

The detailed description above leads us to several interesting observations. Concerning chronology, the local or regional redware broadly dates the assemblage between the later 16th and end of the 17th century. Imports (especially stoneware and tin-glazed ware) allow to refine this dating and make it possible to delineate several chronological phases. The majority of the finds either dates from the late 16th or second half of the 17th century. The dominance of pottery dating to the turn of the 16th and 17th centuries might well reflect two clearance phases, one when the Ximenezes moved into the *Blauwhof* and one when the estate transferred to its new owners. It is particular that only the Portuguese and Italian imports seem to fall into the time slot of the first half of the 17th century. Does this reflect a different pattern of refuse disposal under Ximenez ownership, or were ceramics simply not that prevalent during the *Blauwhof's* high days? The probate inventory of Emmanuel Ximenez, dated 1617 (see below), hints at the former, since

maiolica plates are more often mentioned than the more costly, and thus more noteworthy, pewter ones.

Most crucial to this study, is the occurrence of Portuguese redwares and faience. As a first for a high-status rural site in Flanders, this presence is bound up with the Portuguese roots of the Ximenez family. Although Duarte and Emmanuel were burghers of Antwerp in the first place, they still retained Portuguese traditions in their consumption of food and material culture. The *covilhete*, as a vessel for a particular Portuguese milk dessert, serves as the best illustration of this hybrid identity, as no other vessels are known to us outside of a Portuguese context. The fact that this vessel dates after the main import period for Portuguese ceramics in the Low Countries might reinforce the hypothesis of a hybrid identity. It namely evidences the efforts made in acquiring this characteristic Portuguese item, while it was no longer readily available on the markets. These Portuguese lifeways are possibly also reflected in the differentiated use of local or regional redware pottery. Compared to other contemporaneous sites in Flanders, this assemblage counts a remarkable number of (large) dishes. They did not serve display purposes, given the lack of decoration and any iconographical evidence supporting this claim. They may, however, well point to a Mediterranean way of dining, with a large dish on the centre of the table, where food is taken from on individual plates. This would be a current practice in early modern Portugal (pers. comm. Tânia Casimiro), in contrast to wealthy milieus in the Low Countries where the use of a central dish at the table is less common. Whereas some aspects of a Portuguese lifestyle were apparently retained, others were exchanged in response to the new environment. This is particularly true in the case of religion, where the plate with the Parable of the Sower certainly evidences a Catholic affiliation (in contrast to the faience plate with the six-pointed star, of which the interpretation is still doubtful). Although the ceramic proof is admittedly scarce, it adds yet another argument to the historical studies and analysis of the bone material in which the Ximenez's Catholic belief is found to be genuine (Aluwé, Starkovich and Van Vaerenbergh 2015; Göttler s.d.).

These observations add to the broader discussion on hybridised and retained cultural identities using historical archaeological remains. So far, this topic has been especially explored in colonial contexts (e.g. Young 1995). The Ximenezes now allow to draw the concept of hybridity back to Europe's mainland. Hybridity is defined here as the amalgamation of influences from two (or more) cultural groups, creating something different than the mere combination of those existing forms (Young 1995, 26; Liebmann 2013, 27; 2015, 319). This hybridity is not inherent in the ceramics discussed here. As seen above, Portuguese ceramics do not only surface in assemblages belonging to Iberian migrants, but on a variety of sites. Hybridity should therefore rather be seen as a practice (Liebmann 2015, 322-323), a continuous response to the new context in which they found themselves. These responses were multiple, from identification with the Counter-Reformation culture, to a pragmatic selection of or plain resistance to the values

associated with it (Bodian 1997, 14). In case of the Ximenezes, we likely speak of the former strategy of identification. However, analysis of the *Blauwhof's* faunal assemblage and ceramic collection demonstrates that there was no complete merging of one group into the other. Portuguese merchant families continued to stress their common past, not only through intermarriage and self-definition – referring to themselves as *os da nação* (those of the nation) – but thus also by dietary practices and the use of material culture (Bodian 1997, 4, 6). The durability of material culture allowed to pass that memory of a common past on to future generations.

Finds of Portuguese redwares in Britain have mainly been explained by cod fishing, trade and the English navy and merchants spending time in Portuguese ports and markets, taverns and brothels (Newstead 2014, 169). Then again, in the Netherlands, Portuguese faience has been associated with privateering or the extensive (salt and grain) trade (Baart 1992, 274; Gawronski and Jayasena 2013, 164; Oosterbaan and Griffioen 2016, 422). As a result of those two processes, the category is frequently found in Dutch harbour twons. In Amsterdam, clusters of Portuguese faience are found in the Jewish *Vlooienburg* quarter, but also in the harbour area (Gawronski and Jayasena 2013, 182). It shows that there is no exclusive relation between the presence of Portuguese faience and Jewish households. Rather, it appears to be a common commodity, available to a broad spectrum of social groups involved in maritime trade (Baart 1987, 23). Moreover, Portuguese faience also surfaces in the countryside (Bartels 2014, 6). Many villagers were namely seasonally involved in shipping. By contrast, in agrarian communities, the find of this import category is only rare (pers. comm. Christiaan Schrickx). In the Netherlands, there is thus no exclusive connection between the (merchant) elite and the occurrence of Portuguese faience. Nonetheless, in elite contexts, Portuguese faience is consistently more prevalent than in the assemblages of poorer households (Baart 1987, 23). Despite its prevalence, it is difficult to ascertain the role of Portuguese faience in trading milieus as no merchant households have been excavated with certainty in the Netherlands. Possible exceptions can be found in Vlissingen, where two plates were found in assemblages that might have belonged to a trader and to Cornelis Lampsins, trader and mayor of that town (Claeys, Jaspers and Ostkamp 2010, 312, 327, 332, 334). A Dutch merchant household, on the contrary, has been excavated in Helsingør, Denmark (Linaa 2012). Here, Portuguese and Italian tin-glazed wares were found in an assemblage dating to the 1630s. They are interpreted as a mark of the merchant's participation in the world trade system (Linaa 2012, 95, 99). Concerning Portuguese redwares, the situation more closely resembles the one in Flanders, with the scarcity of the category mainly linked to elite assemblages. An exception is the already-mentioned *Vlooienburg* quarter in Amsterdam. In the excavated households, 1 to 16 pieces of Portuguese redware were found, adding up to a total of 64 vessels. Initially, as with the Portuguese faience, these were connected to the many Sephardic immigrants in that quarter, but it was later understood that they were also found in non-Jewish households (Baart 1992, 274).

It is important to remark that the above cannot plainly be transposed to Flanders, as it concerns a less commercial context. While the Northern Netherlands lived their Golden Age during the 17th century, this world trade is archaeologically less visible in Flanders. Therefore, other processes than the maritime connections in the Netherlands and Britain seem to be at play for the *Blauwhof*. Interestingly, an inventory of Emmanuel Ximenez is preserved, dating to June 1617, at the moment of the death of his wife, Isabel da Vega (Moran s.d.). In the porcelain room of their house on the Antwerp *Meir*, this inventory mentions *Negentwintich roy Portugaelse poeckers* (29 red Portuguese *púcaros*). A search for these terms in other 17th-century Antwerp probate inventories (Duverger 1984) allows a better insight into the context in which these items were used. For example, in an inventory dated March 29, 1634 of the goods of a certain Peter De Ram, who are stored in the house of his deceased father, alderman in Antwerp, *Twee Portueguesche pottekens van roy aerde* (two small Portuguese pots of red earth) are mentioned (Duverger 1984, vol. 3, 378-379). Another instance of a *root Portuguese schotelken* (a small red Portuguese dish) can be found in the inventory, dated November 27 1662, of the goods of the deceased Gillis van Diest in his house *de Blauwe Hand* (the Blue Hand) on the *Eiermarkt* in Antwerp (Duverger 1984, vol. 8, 272-273). Although his profession is not stated, the central location of this residence in the city, close to the *Meir* (a very wealthy area), indicates a high-status household. It can be concluded that these Portuguese redwares only circulated in the upper echelons of society. Unfortunately, the Antwerp inventories only seldom contain price information, so we have no exact clue as to the monetary value of these vessels. However, the fact that they are described in detail is already telling (Blondé 2002, 295, 297). Although ceramics are generally regarded as a bad graduator for wealth, this category can thus be used as a possible marker of affluent consumers between the second half of the 16th century, when Iberian redwares start appearing in Antwerp excavations (possibly stretching to the first half of that century, considering the find in Aalst), and the 1660s, after which they do not longer appear in the inventories.

Another noteworthy item, is that faience is never associated with a Portuguese origin in 17th-century inventories. Was it not recognised as such by the notaries, as trained archaeologists today still struggle to see the difference? If so, why then bother to import these goods, since the nearby Antwerp produced similar goods well into the 17th century? A possible explanation lies in the fact that these finds do not only testify to the broad trading networks to which the Ximenezes had access. These luxury goods were not just high-value commodities but, following Dupré (2011, 282, 290), they also served as a vehicle of friendship and social cohesion and mobility amongst knowledgeable peers. In aspiring an aristocratic status, wealthy merchants in Antwerp imitated a noble way of life (Dupré 2011, 280). In case of the Ximenezes, the court of Philip II was to example set to follow. Their house on the Antwerp *Meir* had many references to Spanish court life, such as portraits of the king and queen. This influence even stretched into the garden, as is evidenced by the order of seeds of New World flowers, such as the ones in the Escorial

palace (Dupré 2011, 280). The presence of Portuguese ceramics can also be explained by this *vivre noblement*. For the Portuguese redwares, it is hard not to make a link to the presumed medicinal properties or the gift of Estremoz *púcaros* by Philip II to his daughters, a knowledge shared amongst fellow merchant-collectors. In case of the Portuguese faience, the meaning might perhaps only be clear to those directly involved in the purchase, giving and receiving of these vessels. Other than of monetary importance, since their provenance was not recorded in the inventories, Portuguese plates may have been especially appreciated for their symbolic value by those using them. This would confirm a previous suggestion by Ostkamp (2010, 59), in that a part of the Portuguese faience did not arrive into the Low Countries as booty, but was a gift of friendship, love or marriage.

7.6 Conclusion

In conclusion, the importance of the *Blauwhof* assemblage, belonging to the immigrant Ximenez family, is situated on multiple levels. Typologically, although not very narrowly dated, it was still possible to make advancements in the morphological evolution of certain ceramic vessels. The diversity of categories, forms and types that was identified, presents a much-needed chronological reference horizon in the yet-to-be-established discipline of early modern archaeology in the historical region of the Southern Netherlands. The main value of this assemblage is, however, situated in the fact that we deal with material of the Ximenez family. Although the Ximenezes were clearly well integrated in Antwerp's high society, the ceramic evidence is reflective of a hybrid cultural identity. Portuguese traditions were still retained in the use of imported material or inspired to use local material in a Mediterranean way. However, these traditions seem to have functioned alongside typical consumer preferences of the Low Countries. The status of the Ximenez family is evident from the Portuguese imports, as these are only found in high-status households. However, after comparison with probate inventories, an interesting paradox comes to the fore. While Portuguese *púcaros* played an active role in the imitation of court life, as an acknowledged object amongst Antwerp's well-to-do, it is questionable whether this was also the case for Portuguese faience, since it was not valued as such by contemporaries. It seems that the latter was involved in a more intimate relationship between members of a single Portuguese family on the Flemish countryside, expressing friendship and love in the giving, receiving and using of these plates.

Chapter 8 Inter-site comparison and interpretation

8.1 Typochronological advancements for ceramics in the research area and comparison to surrounding regions

8.1.1 Introduction: damping the expectations

This chapter draws together the information on ceramic categories, forms, types and functions from the different sites studied above (Table 29). In doing so, new insights are obtained in the typochronological evolution of ceramics in the research area. On the basis of a comparison with surrounding regions, it will furthermore be argued that – certainly for the 16th century – the coastal zone can be seen to have a ceramic tradition that is distinct from the rest of Flanders. It seems that, in spite of increasing standardisation following a new kind of serial production (Bitter 1993, 99), certain specific regional differences were indeed retained.

I have refrained however from developing grand typological schemes for locally- and regionally-produced ceramics, as I feel it is yet too early to do so, if at all possible. The problematic nature of a rim typology for the early modern period has already been touched upon. The seamlessly-endless variation in rim types no longer correlates to regional differences in potting traditions, making it currently impossible to see the wood from the trees. Moreover, this dissertation only provides typochronological reference horizons for the period 1519-1550 and the period of the late 16th to early 17th century. Ceramics that do not date to these intervals have been determined on the basis of a comparison with Dutch literature. However, this procedure is equally problematic in nature because this research observed that the situation in the Northern Netherlands cannot plainly be transposed to the Southern Netherlands (examples are the early date and different nature of Italian imports and the difficulties in matching redware vessels to a type in the Deventer-system). Future analysis of early modern assemblages in Flanders

will thus undoubtedly entail a shift in the dating attributed to certain forms, a process that should depart from the dates inherent to those assemblages, not to be hindered by reference to a rigid typological scheme. Although the typochronological potential of the current dataset is limited, it was nevertheless possible to advance the current state of knowledge on early modern ceramics in Flanders.

8.1.2 Categories

Nine broad ceramic categories were attested: greyware, redware, whiteware, Hafnerware, tin-glazed ware, stoneware, Werra, Weser and porcelain. A notable absentee are productions from northern France. It can probably be explained by the near monopoly of Dutch and German trade to the Low Countries (Hurst, Neal and van Beuningen 1986, 2). The observation also goes in reverse order. When contemporary French sources speak of Flemish ceramics, it likely concerned stoneware from Bouffioulx or the Rhineland (Ravoire 2006, 324).

8.1.2.1 Greyware

Greyware remains a significant part of (early) 16th-century material culture. For the late 15th- to early 16th-century assemblage of the Beaulieu abbey at Petegem, greyware represents 18% of the vessels and nearly 26% of the sherds (De Groote 1992, 377, table 2). An assemblage in Aalst, dated to the first half of the 16th century, sees the number of sherds and individuals diminishing to respectively 12% and 6% (De Groote *et al.* 2004, 341, table 1). For Middelburg's convent (1519-1550), a similar 12.5% of the sherds were produced in a reduced fabric (Table 18). A lack of individuals makes that the category is not represented in Table 29. The great resemblances of this greyware fabric to productions originating from the cuesta Oedelem-Zomergem argues in favour of a local provenance. Its presence in more recent assemblages is often disposed of as residual (also in this dissertation, see for example 'Quantification'). However, the find of reduced sherds in the garderobe chute of Middelburg's castle (Poulain, De Groote and De Clercq 2013, 3, table 1, 9, table 2) indicates that a minor percentage of household goods in the late 16th century was still composed of greyware ceramics. Also for the kilns in Aalst, greyware was attested in the phase dating to the late 16th century to first half of the 17th century (Bracke and Van Hove s.d., 124, fig. 140). The situation in Brussels shows a remarkable paradox: Van Eenhooge (1999) makes no mention of greyware in his analysis of a 16th-to 17th-century assemblage, while De Poorter (1995, 161) observed that over 11% of sherds dating to the last quarter to the 17th century were made in a reduced fabric. Future research will have to point out the reasons for this Brussels paradox.

8.1.2.2 Redware

Redware ceramics are consistently the most dominant category in every assemblage. However, its importance diminishes through time. Although the numbers in Table 29 are dependent on the size and nature of the assemblage, its consumers and the method of counting, a trend can be observed where redware climbs to a maximum of 98% at the turn of the 17th century. Henceforth, ceramics are increasingly made out of another fabric, with redware vessels only accounting for 77% of the material at the 17th-century *Blauwhof*. It resembles the situation in Brussels, where several 17th-century phases show similar values (De Poorter 1995, 157, 159, 160, 161). In 17th-century Tongeren, this pattern is even more pronounced, with redware only making up 44% of the vessels (Wouters *et al.* 1994, 357). However, for the Waasland region in the 17th century, it has been noted that redware continues to take up percentages from 93% to 94%. Laleman (1997, 39) connects these values to a difference in the consumption between rural and urban environments. It would mean that the Ximenez family imported their urban way of life into the Flemish countryside. The 97% value for the period 1519-1550 is above average and is probably due to the reasons mentioned above. In the late 15th-early 16th century, redware makes up respectively 57% and 65% of sherds and individuals (De Groote 1992, 377, table 2), augmenting to respectively 73% and 70% in the first half of the 16th century (De Groote *et al.* 2004, 341, table 1). The trend of redware gaining importance throughout the 16th century after which its presence decreases once again can thus be confirmed.

The redware as presented in this chapter is of an eclectic nature, provenancing from multiple regions. A first group is of a local or regional origin. Recent excavations in Aalst have indicated that redware pottery production in Flanders continued in early modern times (Bracke and Van Hove s.d.). Other kilns are likely to surface in the future. For the redware finds at Middelburg, it has been suggested that production at the *cuesta Oedelem-Zomergem* continued from medieval into early modern times. The distinctively-different sgraffito and slip decorations on the contemporaneous plates at the Saint-Isabella fort and Middelburg's castle moreover indicate that multiple production sites were active in the coastal region. However, from that late 16th century onward, redware can no longer be exclusively identified with local or regional production. Several supra-regional production sites come to the fore, namely Bergen op Zoom, Gouda and Oosterhout. Oosterhout ceramics were thus far only recognised at Middelburg's castle, while Bergen op Zoom productions were present both in Ostend and Middelburg. The latter observation will be one of the arguments pleading in favour of a maritime ceramic tradition, including Zeeland. From the late 17th century onward, the Lower Rhine area should also be added to the regions from which redware was imported. Finds have been registered at the *Blauwhof*, in Ostend (Pieters *et al.* 2003, 245, fig. 16:12-14) and most likely also in Bruges (Swimberghe 1983, 184, fig. 26-27, 188, fig. 54). It could possibly be suggested that the distribution of this Rhenish waretype is related to the presence of a

harbour and did not reach their respective hinterlands. In case of the *Blauwhof* at Temse, it should be remembered that the Ximenez family resided in Antwerp, harbour town *par excellence*, and that the location along the Scheldt provided easy access to that harbour city.

The redware category also comprises of Iberian imports. Of a Spanish origin are the so-called olive jars. They appear to be quite widely spread during early modern times, from Middelburg (castle), Temse (*Blauwhof*) to Ostend (Pieters *et al.* 1995, 196, fig. 18:3). More exceptional are the Portuguese productions. Finds were thus far recorded in Aalst (De Groot 2008b, 39-40, fig. 14), Antwerp (Veeckman 1994), Mechelen (Vandenbergh 1972, 128-130, 138, fig. VIII:63), Ostend (Pieters *et al.* 1995, 197, fig. 19) and Temse (*Blauwhof*). The goods seem to function as a marker for affluent consumers from the possibly first, certainly second half of the 16th century until the 1660s. Finds of Portuguese redwares in Britain are seen as the result of cod fishing, trade and the presence of the English navy and merchants in Portugal (Newstead 2014, 169). Although fishing, trade and war are all likely explanations for the Ostend vessel, other processes are believed to lie at the basis of Portuguese redwares being present in high-status assemblages. Without advancing all too much on its social interpretation, Portuguese redwares should be seen in the context of social mobility between knowledgeable actors.

8.1.2.3 Whiteware

A following ceramic category is the whiteware. The presence of whiteware in Flanders can be traced back to the 10th century, when it was imported from the region surrounding the Meuse valley (De Groot 2008a, 337). Changes occur in the late 15th-16th century, as the white-firing finds at Petegem show more macroscopical resemblances to Tournai productions. However, for the 16th century, assigning a provenance to whiteware remains a hazardous enterprise (De Groot 2008a, 345). From the 17th century onward, Gouda should be seen as the most likely production site for white-firing ceramics in Flanders (van der Meulen and Smeele 2012).

The proportion of whiteware in medieval times never reached great heights (De Groot 2008a, 391, fig. 287). The turn of the 16th century brings no change, as the category only accounts for 0.9% of the sherds and 1.5% of the vessels at the Beaulieu abbey of Petegem (De Groot 1992, 377, table 2). Numbers are even lower for Aalst in the first half of the 16th century, with 0.1% of sherds and 0.4% of vessels registered as whiteware (De Groot *et al.* 2004, 341, table 1). For the period 1519-1550 in Middelburg, no individuals were counted, but 3% of the sherds were made in a white-firing fabric. The presence of the whiteware category steadily climbs throughout the 16th century, reaching a maximum of 4.8% for the *Blauwhof* site. For the 16th-17th century, whiteware is also found in the *Hof van Hoogstraten*, Brussels, counting 1.6% of the vessels present in the assemblage (Van Eenhooge 1999, 274). Data for Brussels's Wealthy Clares quarter confirms that this presence is only

limited, with whiteware accounting between 0.23 and 0.73% of sherds (De Poorter 1995, 157, 159, 160, 161). The situation in Tongeren is once again quite different, with 19% of vessels in a 17th-century assemblage made out of a white-firing fabric (Wouters *et al.* 1994, 357). This high percentage could be explained by the proximity of the Meuse and could suggest that whiteware production along that river (e.g. in Maastricht) continued well into the 17th century.

The combination of red- and white-firing clays in a single vessel, as attested for Aalst (De Grootte *et al.* 2004, 332), Brussels (Van Eenhooge 1999, 274), Ename (Lemay 1995, 301-33) and Petegem (De Grootte 1992, 371-373), was not present within the studied assemblages. It therefore seems a diagnostic feature for the south of Flanders, possibly with Tournai clays shipped via the Scheldt river.

8.1.2.4 Hafner

A particular kind of whiteware is the Hafner category. Its presence in the moat of Middelburg's castle makes that the period of import cannot be narrowly dated. However, the heavily-tempered fabric would be typical of Cologne productions, in turn suggesting a possible date in the first half of the 16th century (Bartels 1999, 151). The waretype does not seem to be very widespread in Flanders. Other references to this category were only found with Veeckman *et al.* (1992, 39, fig. 9) and De Poorter (1995, 159-160), respectively for Antwerp, dated 1575-1625, and Brussels, dated to the first half of the 17th century.

8.1.2.5 Stoneware

Also stoneware was imported from the Lower Rhineland. The distribution of Siegburg, Cologne, Frechen and Westerwald probably ran via the Rhine given the location of these production sites or regions along that river or one of its tributaries. Much of this Rhine trade was controlled by Dutch merchants, for example from Bergen op Zoom (Vandenbulcke and Groeneweg 1988), with Cologne as the central hub of trade (Gaimster 2006, 133). This situation contrasts to the sites of Aachen, Langerwehe and Raeren, of which the stoneware would be transported from that former town, using the Imperial route from Cologne to Bruges (Gaimster 2006, 133; Ostkamp 2012, 44). The dominance of Raeren productions in the early modern Low Countries shows that trade via this route must have been of considerable importance. A final production site is that of Bouffioulx and its neighbouring villages, of which the goods were traded along the Sambre and Meuse rivers. Its physical resemblance to Raeren products makes that it is not often recognised as such (Gaimster 1997, 302), a fault undoubtedly present within this dissertation. However, multiple finds have been identified in Flanders, such as the St. Peters abbey in Ghent (De Bisscop *et al.* 1985, 29-31), Middelburg and Ostend (Pieters *et al.* 1995, 196, fig. 18:4).

When looking at the evolution through time, stoneware seem to be best represented in the research area at the late 16th-early 17th century, after which it slightly falls back. This pattern can possibly be related to the upcoming alternatives for the storage and drinking of liquids (e.g. glass). However, it is yet to be seen whether this observation holds true. No such pattern can be noted when looking at other published sites. For Petegem, late 15th-early 16th century, stoneware counts 7.9% of sherds and 10.5% of individuals (De Groote 1992, 377, table 2), for Aalst, first half of the 16th century, the category makes up respectively 10.5% and 16.3% of sherds and individuals (De Groote *et al.* 2004, 341, table 1). The *Hof van Hoogstraten* could possibly confirm lower proportions of stoneware in the 17th century, with only 4.4% of the vessels produced in this fabric (Van Eenhooge 1999, 272), however, this image is not confirmed for the Wealthy Clares quarter in Brussels where stoneware ranges between 17% and 23% in several contemporaneous assemblages (De Poorter 1995, 157, 158, 159, 160, 161). The pattern is even further distorted by a 17th-century assemblage in Tongeren, where 31% of the vessels was made in stoneware (Wouters *et al.* 1994, 357). This elevated number could be explained by the proximity of Tongeren to Aachen and Raeren.

8.1.2.6 Werra and Weser

Two final German import categories are named after the rivers along which their production centres were situated, Werra and Weser. From these sites, the ceramics were transported to Bremen, from which they were in turn shipped all over Europe (Hurst, Neal and van Beuningen 1986, 242). The main period of import is generally dated between 1580 and 1630, with Weser ceramics possibly already produced in the 1570s (Hurst, Neal and van Beuningen 1986, 244; Ostkamp 2012, 56). However, the data currently available for our region suggests that the situation in the present-day Netherlands cannot be plainly transposed to Flanders: Werra and Weser only seem to have been imported from the 17th century onward. In this dissertation, no Werra or Weser ceramics were recorded in assemblages dating to the turn of the 17th century, with exception of a single (possibly intrusive) Werra sherd at the Saint-Isabella fort. In turn, for the 17th-century *Blauwhof*, 0.1% of the vessels is Werraware. Although the evidence of absence is not very convincing, the dates written on Werra plates could confirm this hypothesis, as no single piece is dated prior to 1600. The only Weser ceramics published for Ostend might bring an additional argument, as they were found in an assemblage with a *terminus post quem* of 1601, 1604 or 1609 (Pieters *et al.* 2003, 241, fig. 14:4-5). Bruges forms the sole exception, with a Weser plate in an assemblage dated to the second half of the 16th century (Swimberghe 1985, 189, fig. 29). However, the dating of this assemblage could easily be stretched to the beginning of the 17th century. If it would indeed be true that Werra and Weser ceramics were only imported from a more recent date onward, the reasons behind this regional difference remain to be explained.

8.1.2.7 Tin-glazed ware

Tin-glazed ware gains importance throughout the 16th and 17th centuries. The data for Middelburg's convent and the Saint-Isabella fort shows an inverse pattern, but this is to be explained by social motives, with the Poor Clares inscribing in a monastic tradition, while the soldiers might have made a deliberate choice for not using the enemies' products. The distribution of maiolica in the early to first half of the 16th century is largely limited to abbeys and convents, as is evidenced by the finds at Middelburg's Poor Clares convent, the Beaulieu abbey at Petegem (De Groote 1992, 377, table 2) and the Boudelo abbey in Klein Sinaai, Stekene (De Smet 1989, 20). In contrast, a non-clerical assemblage in Aalst (De Groote *et al.* 2004), dated to the first half of the 16th century, contained no tin-glazed sherds. The 14% tin-glazed vessels at the *Blauwhof* seem particularly high, and should probably be explained by the nature of the assemblage and the wealth of the consumers. Other 17th-century sites show a more moderate proportion of tin-glazed vessels: 6% at the *Hof van Hoogstraten*, Brussels (Van Eenhooge 1999, 272), and also 6% in Tongeren (Wouters *et al.* 1994, 338, 339, fig. 15a, 357). Brussels's Wealthy Clares quarter deviates once again, with maximum 1.69% of the sherds identified as tin-glazed (De Poorter 1995, 157, 159, 160, 161).

As we have seen for the redware, whiteware and stoneware, Flanders was also largely dependent on the Northern Netherlands for the supply of tin-glazed ceramics, although Antwerp and Ghent productions continued into the first half of the 17th century (Laleman *et al.* 1996; Oost and Veeckman 2002, 60). Only a minor fraction originates from the Mediterranean, particularly from Spain, Italy and Portugal. Spanish tin-glazed vessels were only present in limited amounts within the studied assemblages. It concerns one fragment of a Valencian lustreware dish and part of a Plain White *escudilla*, both found at Middelburg's castle. The dating for both finds ranges from the second quarter of the 15th century until the first quarter of the 16th century. As stated above, more recent Spanish imports are limited to the so-called olive jars. The presence of large amounts of Spanish tin-glazed ware in monastic communities and to a certain extent in castles has been explained from a religious perspective, functioning in the cult of the Holy Virgin (De Groote 2014). However, for Middelburg, it has been argued, and I will repeat so below, that other motives might be at play. Import at the castle seems to have been related to the personal gain of some well-connected individuals (e.g. Pieter Bladelin and Guillaume II Hugonet).

In contrast to this Spanish maiolica, 15th-century Italian ceramics are only rare. Its rarity makes it *difficult to evaluate its presence and distribution* although there certainly seems a monastic connection for the inland sites (De Groote 2014, 3). For the early 16th century, the image was seen to remain the same, with the largest group of Italo-Netherlandish maiolica originating from the Beaulieu abbey in Petegem (De Groote 2014, 4). However, once again, consumption of Italian ceramics at Middelburg's castle was

probably detached from any religious connotation. The several early 16th-century vessels at this site are quite surprising, since Italian ceramics are only imported to the present-day Netherlands on a considerable scale shortly before the 1550s (Ostkamp 2012, 69). The 16th-century trade in Italian ceramics was largely determined by Montelupo products, being embarked in Pisa onto Genoese which subsequently set sail for Antwerp (Baart 1991, 233), possibly explaining the greater amounts of early maiolica in Flanders. Despite the Dutch taking over the trade in the late 16th century (Engels 1997), there are only little indications for Ligurian imports into our regions. This might constitute yet another difference with the present-day Netherlands, where these Ligurian wares make up nearly half of Italian imports on sites before 1600, and about a quarter in the first half of the 17th century (Jaspers 2011b, 13).

A final group of tin-glazed ceramics originates from Portugal, most probably from Lisbon. In the present-day Netherlands, most Portuguese faience is found in harbour towns. Its presence in these cities has been explained by seagoing, in particular by the private trade or privateering by seamen (Ostkamp 2010, 55; Oosterbaan and Griffioen 2016, 422). The distribution of Portuguese faience in Flanders is currently hard to evaluate, as the vessels in this dissertation concern the first instances published for this region. However, Middelburg and Steendorp can hardly be considered as maritime sites, although the Lieve and Scheldt respectively connect them to the sea. It seems that other processes are at play here. The hypothesis of Portuguese faience as a martial gift has been suggested by Ostkamp (2010, 59) and is reinforced by the present study of Antwerp probate inventories.

8.1.2.8 Porcelain

As a last category, porcelain was only found in assemblages from the 17th century onward. The finds at the *Blauwhof* can probably be related to the wealth of its occupants. The single *klapmuts* at Middelburg's castle remains, however, difficult to interpret. Bruggeman (2010, 32) notes that the oldest archaeological finds of porcelain are dated in the late 16th or early 17th century. Earlier vessels are yet to be excavated, although literary and iconographical sources would indicate a considerable import of porcelain from the mid-16th century onward (Bruggeman 2010, 32). The scarcity of porcelain in 17th-century Flanders constitutes yet another difference with the Northern Netherlands. Whereas the relative abundance of porcelain in the present-day Netherlands can be explained by the activities of the United East India Company, the limited amount in our regions has been related to the difficulties in the supply of goods from the Far East by the troubles of the Eighty Years' War (Hurst, Neal and van Beuningen 1986, 1). There is a remarkable paradox between the archaeological scarcity of porcelain and the documentation of porcelain in 16th- and 17th-century probate inventories. Whereas in late 16th-century Antwerp, porcelain is only present in low numbers, the period 1628-1632 witnesses a totally-different situation, with

porcelain represented in every social class (Baatsen, Blondé and De Staelen 2017, graph 3). This mismatch between archaeology and history certainly merits further research. Literature studies can add another layer to this discussion, as the Dutch fascination with porcelain (for example, as evidenced by the many pieces on paintings) is not reflected in contemporaneous literature (Weststeijn 2014, 213).

8.1.2.9 Conclusion

Concluding, a detailed look into the evolution of categories sheds light on the chronology and nature of assemblages, and on their regional characteristics. As a first, greyware remained in use – albeit in low quantities – certainly until the late 16th century, possibly somewhat later. The deviant values for the Wealthy Clares quarter in Brussels (De Poorter 1995), with greyware in late 17th-century assemblages, remain yet to be explained. Whereas greyware disappeared in the late 16th century, redware would never be more prominent. Its dominance coincides with the rise of supra-regional pottery production centres in Bergen op Zoom, Gouda and Oosterhout. However, this height is short-lived and drops back in the 17th century, when whiteware and tin-glazed ceramics are increasingly produced and imported. Whereas the presence of tin-glazed ware in the early 16th century is connected to monastic contexts, the popularity of both the whiteware and tin-glazed categories in the 17th century will be associated to the concept of New Luxury (see below: ‘Warfare and the shift to a ‘New Luxury’?’). Together with redware, stoneware might also be diminishing in the 17th century, due to availability of alternatives for the storage and drinking of liquids. However, this hypothesis is yet to be confirmed, as comparison to currently-published data only provided a blurred image. Furthermore, it was observed that early modern ceramics in Flanders have their own singularities and cannot be seen as a mere reflection of the situation in the Northern Netherlands. Evidence of Flanders’s particular economic and political history can be found in the early import and different nature of Italian imports, the possible later import of Werra and Weser ceramics and the small amount of porcelain. Within the county of Flanders, it seems that further regional distinctions can be made. The different decorative patterns for redware plates at Ostend and Middelburg suggests that multiple production sites remained active in the coastal area. Despite these differences, the presence of Bergen op Zoom products at both sites already hints at the fact that both sites are part of a broader cultural zone, stretching into Zeeland. This zone is clearly distinct from other pottery traditions in Flanders. The area to the south of the Scheldt can be regarded as one of these differing traditions, as it is only here that ceramics are found in a combined red- and white-firing clay. Tongeren (possibly including the entire Haspengouw area) also seems to constitute a ceramic region of its own, although future work will have to verify whether the differing values published by Wouters *et al.* (1994), with much stone- and whiteware, is really a regional trait or merely the result of taphonomic processes. The

following paragraphs will deepen these observations, beginning with a discussion of the forms and functions that were identified.

8.1.3 Forms and functions

8.1.3.1 Food preparation

With exception of Middelburg's Poor Clares convent, most vessels in this dissertation's assemblages can be associated with food preparation. For the site of the Saint-Isabella fort, this functional category reaches an absolute high, with over 60% of the vessels probably related to food preparation. The low percentage at the convent and the percentage at the fort are telling of the particular taphonomic circumstances of both ceramic collections.

Within this functional category, the cooking pot (or *grape*) remains the most dominant form, followed by the skillet. The skillet appears in the late 15th-early 16th century (De Groote 2008a, 392, table 96), becoming increasingly popular from then onward, counting 9% of the vessels at the *Blauwhof*. Next to this cooking pot/skillet ratio, the *Blauwhof* site also stands out by the presence of the single-handled cooking pot. As this form is lacking at the other sites, it may be an indication that the Waasland should be considered as a transitional zone between the coastal area and other ceramic traditions. This observation was already raised by De Groote (2008a, 421) in his study of medieval ceramics. Another new form for the 17th century is the pie shape, signifying the introduction of a new dietary practice. This practice seems to have found rapid acceptance, since the form is present both at Middelburg's castle and at the *Blauwhof*. Remarkably, despite the prevalence of cooking pots and skillets, lids remain surprisingly rare, and so does the frying pan. The lack of lids could be explained by the fact that plates were used to cover cooking pots instead (see Figure 161), which might in turn explain the presence of soot traces on the exterior of several plates. Concerning the lack of ceramic frying pans, it has been suggested that metal pans were preferred over ceramic ones. Even the poorest classes would possess at least one metal individual (Baatsen, Blondé and De Groot 2014, 172). As a final form, the dripping pan is also not very common. The roasting of meat has been associated with the well-to-do (Bult and Nooijen 1992, 87). The presence of dripping pans at Middelburg's castle should thus not come entirely as a surprise.



Figure 161 A plate covers a cooking pot in the lower right corner. Jacob I Savery (c. 1565-1603), Interior of a farm with still life, s.d., Web Gallery of Art.

8.1.3.2 Kitchen and stock

Percentages for forms related to kitchen and stock are fairly consistent, across the several assemblages. Only Middelburg's castle moat shows slightly-elevated percentages, largely due to a high number of large carinated bowls. With the large carinated bowl, the most important form for this functional category has been named. The percentages for this form augment in comparison to medieval times (De Groote 2008a, 392, table 96). It is indicative for the importance of dairy consumption to the early modern diet. The use of dairy products would grow considerably in the late 16th century (de Jong-Lambregts 2004, 40), although this research has indicated that other uses could also explain the prevalence of large carinated bowls. Vessels from Bergen op Zoom were only identified for Middelburg and Ostend, which might once again suggest that they were situated in the same sphere of influence.

Next to large carinated bowls, the category kitchen/stock is largely made up out of jugs. I have opted not to make a distinction between jugs that were used for serving or for storage, as the difference is generally hard to tell on the basis of single sherds and is even problematic for archaeologically-complete vessels. Other forms were only identified in small amounts. A most remarkable form is the container. Comparison with other early modern assemblages indicates that it functioned within 16th-century, high-status households.

8.1.3.3 Tableware

The proportion of tableware is characterised by a considerable variation, depending on the nature of the assemblage, but never grows over 33%. The large diversity of forms that functioned at the table testifies to the new dietary practices of the early modern period. A first example is the chafing dish, which appeared in the late 15th-early 16th century (De

Groote 2008a, 392, table 96). Its introduction entailed that the location for dining was no longer determined by its distance to the kitchen. It is therefore often seen as an indication of wealth (Bult and Nooijen 1992, 85), which would explain its presence in the context of the Poor Clares convent. Another explanation for the diversity of forms and fabrics at the table, lies in the possibilities for display. Conspicuous consumption is evident from the multiple provenances of tableware, from a Spanish *escudilla*, over a Portuguese *covilhete* and Italian *crepina* to a Chinese *klapmuts*.

The plate is the most-occurring form within this category. Since its introduction in the 14th century, it became increasingly popular (De Groote 2008a, 392, table 96). Only for Middelburg's castle garderobe chutes the percentage of plates is remarkably low, with the porringer as the preferred eating utensil. This pattern might be explained by the particularity of these assemblages. Over the *longue durée*, the popularity of the plate seems to go at the cost of the porringer. Whereas this latter form reaches its high in the late 16th-early 17th century, it falls back to 4.6% at the 17th-century *Blauwhof*, a site where tableware is however well represented. This observation is possibly illustrative of a progressing individualisation of the mealtime, where everyone had his or her own plate. However, this hypothesis contrasts to the relative high amount of large dishes at the *Blauwhof*, which led to suggest a Mediterranean, communal dietary practice. As the *Blauwhof* assemblage spans across c. 100 years, it could be that we see both concepts combined.

Next to eating, the table also set the scene for (serious) drinking. The *drinkuit* was only recorded for the first half of the 16th century. For the later periods, solely the Portuguese *púcaros* remained as redware drinking vessels. Since the mid-16th century, drinking games were probably only played using stoneware forms. The back of a stoneware horse(?) illustrates this cheerfulness. Nevertheless, stoneware drinking utensils were never really common, probably due to the increasing popularity of glass vessels. However, the role of stoneware as a category for drinking was not played out. The late 17th century witnesses the introduction of a new form, the *Humpen*. Finally, the *tazza* should also be noted. The form is surprisingly rare for the research area, with only one (probably late 16th-century) vessel counted on a total of 8847 individuals.

8.1.3.4 Hygiene

Forms related to hygiene generally account for only a small percentage of vessels in an assemblage. Middelburg's castle garderobe chutes clearly constitute an exception and confirm the conspicuous character of the upper court, as a possible location for a doctor, surgeon or pharmacist.

8.1.3.5 Other

A final category groups the forms that do not fit into one of the functions above. The sixteen forms that make up this category are illustrative of the increasing form diversification in early modern times.

A first of these forms is the bird pot. With a base fragment present in the Poor Clares convent, the bird pot is found throughout the 16th and 17th century. Different types can be observed, either with a hole cut out in the base (see Middelburg and the *Blauwhof*), in the side (see the example published for Aalst by Bracke and Van Hove [s.d., 113]), or both (the *Blauwhof*). It is yet to be seen whether these different types respond to the different orientations of facades, given that starlings prefer to orientate their nests to the south or east, or whether they reflect regional differences. The flask is less widely distributed. Its presence at the Saint-Isabella fort and Middelburg's castle suggests a possible military connection. Flowerpots, then again, are generally present. Only the Saint-Isabella fort lacked in this form type. This should however not come as a surprise, since the Siege of Ostend was hardly the context for planting flowers. The handled jar seems to be a characteristic form of the 17th century, as it is lacking in earlier assemblages. The many 17th- to 18th-century finds at the *Hof van Watervliet*, Bruges, further reinforce this statement (Vandenberghe 1983, 79, fig. 54). Handled jars without perforated rims could have been used to transport food, particularly fish (as fish and handled jars are often associated on early modern paintings, see Figure 162). It would explain why the handles are often so high, as they prevent from touching the fish's tail (Muyllé *et al.* 1986, 54; de Jong-Lambregts 2004, 45). Those handled jars with perforated rims clearly served to transport heat. The same function is attributed to the brazier or *test*. In 18th-century Delft probate inventories the *test* is only found with the higher income classes (Bult and Nooijen 1992, 89). However, to transpose this observation to Middelburg's castle seems too premature for now.



Figure 162 Hieronymus Francken II, Still life, c. 1604 (Boijmans Collection, Rotterdam).

8.1.3.6 Conclusion

This analysis illustrated the rise and fall of certain ceramic forms over time. Examples are the increasing popularity of the skillet and plate, the latter at the cost of the porringer in the 17th century. The popularity of the plate is one of the observations testifying to the new dietary practices of early modern times, with an increasing individualisation of the mealtime. Table manners were also shaped by the large diversity of forms, allowing new comfort (the chafing dish) or possibilities for display in the use of ‘exotic’ vessels. The study of the assemblages furthermore evidenced the importance of dairy consumption, certainly from the late 16th century onward, and the use of the form as an upcoming utensil for making pies in the 17th century. Finally, the presence of a particular vessel at only one of the sites might plead in favour of regional characteristics. Examples are the single-handed cooking pots at the *Blauwhof* or the Bergen op Zoom large carinated bowls at Ostend and Middelburg.

Table 29 Inter-site comparison of ceramic categories, forms and probable functions (MNI%). The Poor Clares convent is dated to 1519-1550, the Saint-Isabella fort to 1601-1604, Middelburg's castle's garderobe chutes to the last quarter of the 16th and the first quarter of the 17th century, the *Blauwhof* to the 17th century and Middelburg's castle moat from the third quarter of the 15th to the first quarter of the 18th century.

	1519-1550	1601-1604	16d-17a	17	15c-18a	total
	n=59	n=1144	n=388	n=1130	n=6126	n=8847
greyware			2,8%	0,2%	0,3%	0,7%
redware	96,6%	97,6%	88,1%	77,0%	86,7%	89,2%
whiteware		0,2%	0,8%	4,8%	2,3%	1,6%
Hafner					<0,1%	<0,1%
tin-glazed	1,7%	0,2%	3,4%	14,3%	6,2%	5,1%
stoneware	1,7%	2,1%	4,9%	3,5%	3,8%	3,2%
Werra				0,1%	0,4%	0,1%
Weser					0,3%	0,1%
porcelain				0,2%	<0,1%	<0,1%
total	100%	100%	100%	100%	100%	100%
cooking pot	18,6%	56,1%	36,3%	25,5%	38,4%	35,0%
dripping pan					0,1%	<0,1%
form				0,3%	0,2%	0,1%
frying pan	1,7%	0,6%	2,8%	2,7%	0,8%	1,7%
lid		0,6%	0,3%	1,1%	0,6%	0,5%
single-handled cooking pot				0,2%		<0,1%
skillet	1,7%	4,5%	4,9%	9,0%	4,4%	4,9%
food preparation	22,0%	61,8%	44,3%	38,8%	44,4%	42,3%
bottle					<0,1%	<0,1%
bowl		0,1%	1,8%	1,3%	0,3%	0,7%
colander	1,7%	0,1%	0,8%	2,0%	0,5%	1,0%
container					<0,1%	<0,1%
jug	5,1%	6,7%	3,9%	5,5%	7,1%	5,7%
large carinated bowl	11,9%	11,6%	10,1%	9,7%	17,1%	12,1%
mustard pot					<0,1%	<0,1%
sieve					<0,1%	<0,1%
spouted jar					0,1%	<0,1%
storage jar				1,3%	0,8%	0,4%
kitchen/stock	18,6%	18,5%	16,5%	19,8%	25,9%	19,9%
chafing dish	3,4%				0,1%	0,7%
covilhete				0,4%		0,1%
cup				2,0%	0,1%	0,4%
dish			2,1%	6,6%		1,7%

drinking cup	1,7%				<0,1%	0,3%
<i>drinkuit</i>	5,1%					1,0%
<i>escudilla</i>					<0,1%	<0,1%
fluted dish				0,6%	0,2%	0,2%
<i>Humpen</i>				0,4%		0,1%
<i>klapmuts</i>					<0,1%	<0,1%
mug					<0,1%	<0,1%
<i>Pinte/Schnelle</i>		0,1%			0,1%	<0,1%
plate	18,6%	10,3%	3,4%	13,7%	13,2%	11,8%
porringer	3,4%	6,7%	7,0%	4,6%	7,7%	5,9%
<i>púcaro</i>				0,1%		<0,1%
<i>tazza</i>					<0,1%	<0,1%
tableware	32,2%	17,1%	12,4%	28,5%	21,5%	22,3%
basin		0,2%	0,5%		0,7%	0,3%
chamber pot		0,1%	1,0%	1,0%	0,5%	0,5%
ointment jar		0,2%	7,5%	0,5%	0,9%	1,8%
hygiene	0,0%	0,4%	9,0%	1,5%	2,1%	2,6%
bird pot			0,8%	0,3%	0,1%	0,2%
candlestick					<0,1%	<0,1%
compartmented trough					<0,1%	<0,1%
flask		0,1%			<0,1%	<0,1%
flowerpot	6,8%		0,5%	0,1%	0,3%	1,5%
handled jar				0,8%	0,1%	0,2%
jar					<0,1%	<0,1%
marble		0,1%		0,1%		<0,1%
mask					<0,1%	<0,1%
melting pot					<0,1%	<0,1%
oil jug			1,8%		0,1%	0,4%
oil lamp	1,7%				0,1%	0,4%
play disk					0,5%	0,1%
spindle whorl		0,1%	0,3%		<0,1%	0,1%
<i>test</i>					<0,1%	<0,1%
toys					0,1%	<0,1%
unknown	18,6%	1,8%	14,4%	10,3%	4,4%	9,9%
other/unknown	27,1%	2,1%	17,8%	11,5%	6,1%	12,9%
total	100%	100%	100%	100%	100%	100%

8.1.4 Variation vs standardisation

A final set of paragraphs for this chapter deals with what is most probably the largest debate concerning the typochronology of early modern ceramics: is there still variation to be found within the increasing standardisation of ceramic types and if so, what does

that mean? Are these differences the result of chronology, regionality, the type of site, or a combination of those three factors? The following engages in this much-needed discussion by considering width/height ratios, the occurrence of small cooking pots and a vessel's accessories (handle and base finishing).

8.1.4.1 Width/height ratios

Throughout this thesis, considerable attention has been paid to width/height ratios. Despite increasing standardisation, forms were found to have varying ratios, over different regions and periods. The hypothesis that width/height ratios can thus be used as a regional and chronological marker will now be evaluated further with a selection three of commonly-occurring forms: the cooking pot, skillet and large carinated bowl on various sites published for Flanders. For the latter two forms, values respectively ranged between 1:0.4-1:0.7 and 1:0.2-1:0.4. However, these variations seemed to be irrespective of time and region. The lack of a change in dimensions with the skillet remains to be explained. By contrast, with the large carinated bowl, the relative stability in the width/height ratio since medieval times can be probably be explained by the fact that the technique for skimming cream from milk remained unaltered. This is hardly the case for the cooking pot, which seems to be heavily influenced by the changes in cooking techniques.

Considering the double-handled cooking pots (no pipkins) at various sites in Flanders (Table 30), a gradual widening can be observed, with lower heights for increasingly-larger rim diameters. For the second half of the 15th century until the first half of the 16th century, ratios range between 1:1.3 and 1:0.7, while values for the second half of the 16th and the early 17th century go from 1:0.8 to 1:0.5. Data from Bruges (Vandenberghe 1983) and Ghent (De Bisscop *et al.* 1985) suggests that the latter value is retained throughout the 17th and 18th century, with even shallower vessels present at the *Blauwhof* (1:0.3). However, there are exceptions to this pattern, with high, closed cooking pots persisting into the 17th century. The 1:0.8 value that has been associated with the second half of the 16th century, can also be found in several assemblages at the Sint-Anna site in Temse (Van Eenhooge 1993). Even more striking are the 1:1.2 and 1:1.3 values, respectively for the sites of the Saint-Isabella fort (1601-1604) and 17th-century Tongeren (Wouters *et al.* 1994). Either we deal with old cooking pots found in more recent assemblages, or something else is going on. It has already been argued above (see '6.6.1 Redware'), and I will repeat so below (see '8.1.4.3 Vessel accessories') that the tripod base of the 1:1.2 vessel at Ostend might indicate that it concerns an imported cooking pot, possibly from the present-day Netherlands where the production of high, closed forms seems to have continued over a longer time period. Future research will have to indicate whether a provenance for the high, closed vessels should indeed be sought in the present-day Netherlands, or whether a production of high, closed forms ran parallel to a production of newer, lower vessels.

While determining the width/height ratios was unsuccessful for skillets and large carinated bowls, cooking pots were found to vary greatly over time. These changes in dimensions are undoubtedly linked to a change in cooking techniques, such as the introduction of the kitchen stove (Bult and Nooijen 1992, 71). It is yet to be seen whether these varying dimensions also reflect regional differences, with high, closed forms in the 17th century possibly imported from the present-day Netherlands.

Table 30 Width/height ratios for cooking pots at various early modern sites in Flanders. Values derived from the data in this dissertation and following publications: De Groote (2008a, 162, table 15), Van Eenhooge (1999), Beeckmans and Laurijns (1978), De Groote *et al.* (2004), Swimberghe (1985), Bungeneers (1992), Veeckman (1996), De Clercq *et al.* (2007), Poulain, De Groote and De Clercq (2013), De Bisscop *et al.* (1985), Vandenberghe (1983), Lettany, Eryvynck and Veeckman (1992), Schaaf (1992), Van Eenhooge (1993) and Wouters *et al.* (1994). Data for Ostend-Mijnplein remains unpublished.

1450-1550	1500-1550	1500-1550	1500-1550	1500-1550
Ename	Brussels	Geraardsbergen	Aalst	Ostend-Mijnplein
1:1-1:0.9	1:1.1-1:0.9	1:1.1-1:0.7	1:1.3-1:0.8	1:1.1-1:1
1550-1600	1550-1600	1550-1600	16 th C.	late 16 th -early 17 th
Brussels	Bruges	Antwerp	Antwerp	Antwerp
1:0.7-1:0.6	1:0.8-1:0.6	1:0.8-1:0.7	1:0.9-1:0.8	1:0.5
late 16 th -early 17 th	1595-c. 1700	16 th -18 th C.	17 th -18 th C.	1550-1625
Middelburg	Temse	Ghent	Bruges	Antwerp
1:0.7-1:0.5	1:0.6-1:0.3	1:0.9-1:0.5	1:0.5	1:1-1:0.8
1575-1650	1601-1604	1639-1640	17 th C.	17 th C.
Antwerp	Ostend-fort	Temse	Temse	Tongeren
1:0.8	1:1.2-1:0.8	1:0.8	1:0.8	1:1.3

8.1.4.2 Small cooking pots?

In their article on Middelburg's castle's upper court garderobe chutes, De Clercq *et al.* (2007, 20) relate the presence of small cooking pots to *a system or tradition in which individuals had to prepare their own meal and/or had to carry their own personal vessel*. Small cooking pots would thus possibly be indicative of a military dietary practice. However, is this really the case? Are the cooking pots at Middelburg's castle indeed smaller than those on other early modern sites, and, if so, is this the result of a different dating, regional factors or the type of site, the latter as suggested by De Clercq *et al.* (2007)?

Figure 163 considers the distribution of cooking pot diameters for the sites studied in this assemblage. The qualitative assumption lying at the basis of its interpretation is that the Saint-Isabella fort and Middelburg's castle's garderobe chutes (largely) represent military assemblages. The convent and the *Blauwhof* are then again seen as purely civilian

in nature. The remaining assemblages at Middelburg's castle were grouped together and likely have both a civilian and military component.

In general, a trend can be observed, where small diameters (12-21cm) represent 60% or more of the cooking pots in the assemblages. Small diameters do thus not necessarily signify a military origin. The sole exception is the *Blauwhof*, where small diameters slightly fall under the 60% value, with a fairly-even distribution of rim diameters across the different classes. This is probably due to the later 17th-century dating of this assemblage, when cooking pots became increasingly wider and lower. The lower court garderobe chutes are remarkably similar to the pattern observed for the *Blauwhof*. It might reinforce the argument that, beside the military component, the material in these chutes partly represents the civilian intermezzo at the castle in the late 16th century (as was already suggested in 'Interpretation and discussion'). Another strong resemblance can be observed between the diameters of cooking pots at the Saint-Isabella fort and those in the upper court garderobe chutes, with maximum 20% of the diameters over 21cm. Since the military nature of the Saint-Isabella fort assemblage can hardly be questioned, it supports the hypothesis of De Clercq *et al.* (2007) that the upper court chute assemblages are of a military nature. Following the data for both sites, an assemblage with at least 80% of the diameters smaller than 22cm, could possibly be related to soldiers. Finally, the Poor Clares convent counts most very large cooking pots, with 10% of the diameters measuring 32cm or more. However, this should not be all too quickly related to a communal dietary practice, as suggested on the basis of a lack of scratch marks (see '5.5.1 Comparison with other 16th-century convents'). The distribution is likely biased by the low number of vessels for which the diameter could be measured. For example, the class of the biggest rim diameter only counts one value of 34cm.

Concluding, the observation that the upper court garderobe chutes contained many small cooking pots seems to hold true. It must, however, be noted that this observation could be biased by the generally-low numbers of vessels for which the diameter could be determined and the limited number of sites. Further research will have to confirm the following statements. This chapter can thus be regarded as a plea for the explicit statement of rim diameters in ceramic reports and publications.

A comparison with the Saint-Isabella fort could indicate that military assemblages at the turn of the 17th century can possibly be identified by a minimum of 80% of cooking pots with diameters of 21 cm or below. However, I stress that this is a mere possibility. For an assemblage in Aalst, first half of the 16th century, no cooking pots measure over 21cm (De Groote *et al.* 2004, 319-322). Similarly, the four values stated for 17th-century Tongeren fall under 22cm (Wouters *et al.* 1994, 331). As a final example, 79% of the cooking pots depicted by Van Eenhooge (1999, 285-287, 289-291) for the *Hof van Hoogstraten*, Brussels, have a rim diameter under 22cm.

An additional argument for a possible military origin of an assemblage lies with the CV (Coefficient of Variation). This CV is seen as *an excellent statistic for assessing and comparing*

standardisation in artefact assemblages (Eerkens 2000, 664), and is expressed as (standard deviation/mean)x100 (Martín-Torres *et al.* 2014, 555). For more information on the method and its application, see Eerkens and Bettinger (2001) and Eerkens and Lipo (2005). Figure 164 shows that the rim diameters of cooking pots for the Saint-Isabella fort are characterised by the least variation, an observation undoubtedly flowing from a (largely) military group with the same dietary practices. This observation is in contrast to the castle's garderobe chutes which show the highest levels of variation. These levels could possibly be explained by the mix of both military and civilian assemblages. Mutually they compare very well, likely the result of similar taphonomic processes. However, the slightly-higher percentage for the lower court could perhaps indicate that a larger amount of civil material was discarded here.

Going back to Figure 163, a civilian assemblage, by contrast, seems to be reflected by a wider diversity of rim diameters, with both small and large cooking pots, probably responding to the many different needs in a household. For this latter observation, a certain chronological aspect is at play, where more recent cooking pots are generally wider than 16th-century ones. Despite the fact that the different classes are more equally represented, variation within these classes is, however, lower. The CV for both the Poor Clares convent and the *Blauwhof* counts around 25% (Figure 164). Comparisons for rim diameters in non-military contexts range between 8 and 31cm in late 15th- to early 16th-century Petegem (De Groote 1992, 341, 348), with similar values for mid-16th to early 17th-century Bruges (Hillewaert and Verhaeghe 1991, 221). Finally, the hypothesis of large cooking pots in Poor Clares convents as a marker for a communal dietary practice remains to be confirmed.

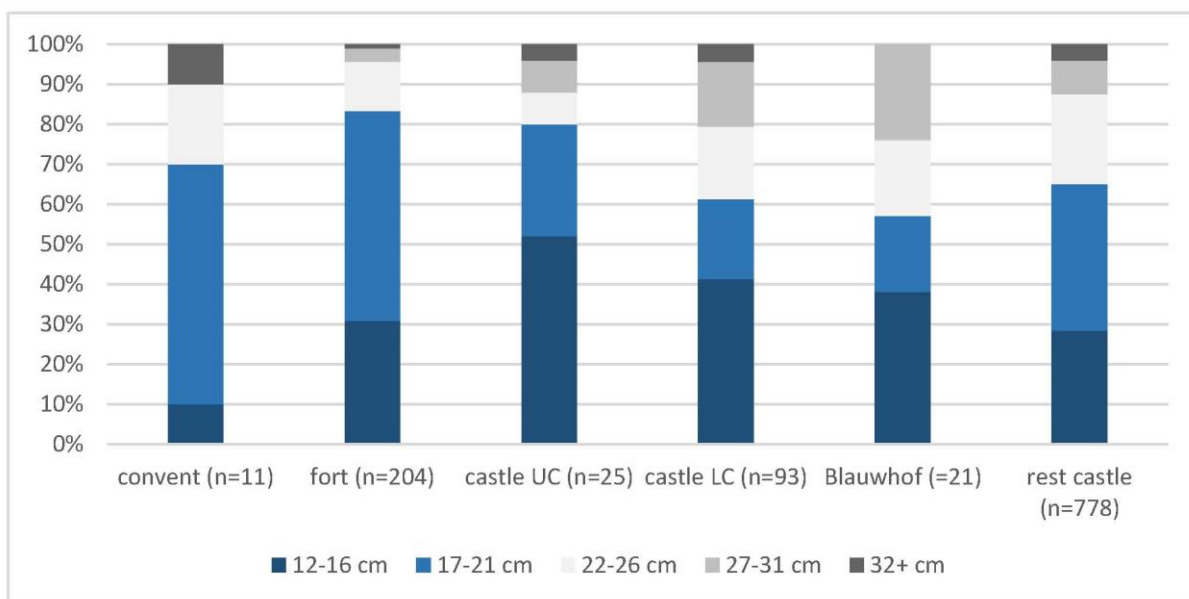


Figure 163 Distribution of cooking pot diameters for the Middelburg's Poor Clares convent, Middelburg's castle's lower court (LC) and upper court (UC) garderobe chutes and its other assemblages (rest castle), the Saint-Isabella fort and the *Blauwhof*.

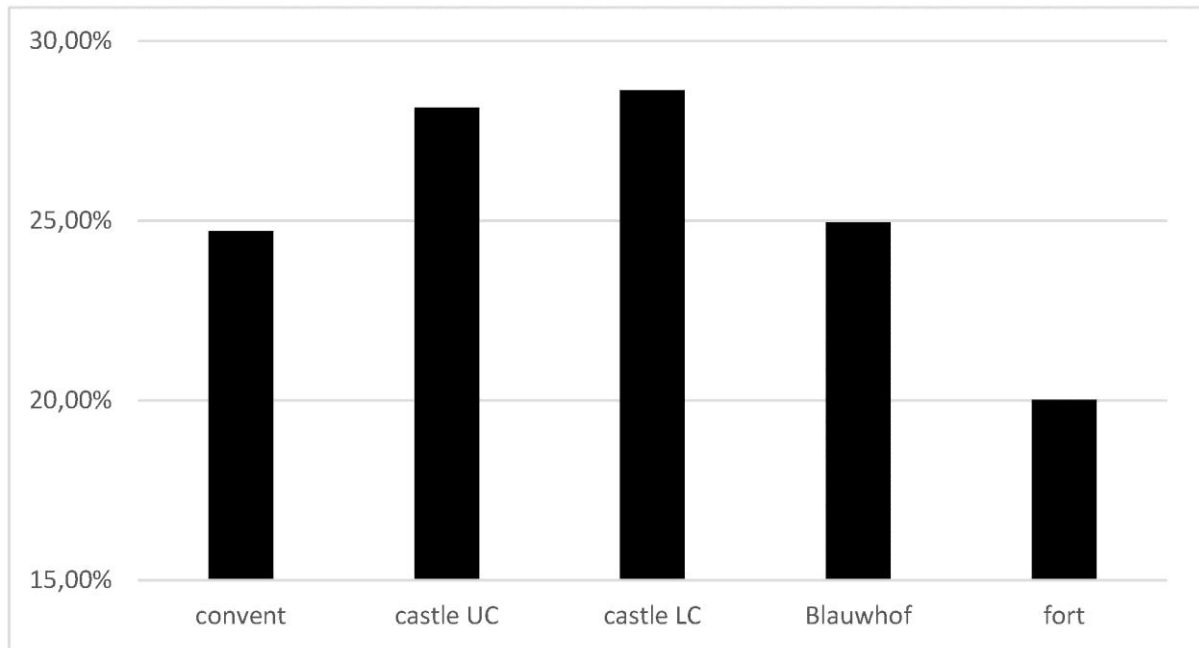


Figure 164 Coefficient of Variation for the Poor Clares convent, the castle's garderobe chutes, the *Blauwhof* and the Saint-Isabella fort.

8.1.4.3 Vessel accessories

In the above, it has already been suggested that some regional differentiation remains visible within early modern assemblages. After discussing the potential of categories and forms in distinguishing between regions, we will now explore vessel accessories. Rather than a focus on rim types, the following considers the design of the base and handle as a possible regional and chronological marker.

This discussion finds its origin with Verhaeghe (1988b, 92), who noted that cooking pots in Bruges more often have a base on thumbed feet than a tripod base, a trait that would continue until the 15th century. Does the cooking pot on thumbed feet also characterise other sites in the coastal region, and if so, how far does its influence reach and can this regional feature also be detected in the centuries following the 1400s, as has been suggested for the upper court garderobe chutes by De Clercq *et al.* (2007, 8).

Cooking pots in Bruges indeed mostly have thumbed feet in 16th-century assemblages (e.g. Swimberghe 1983, 181, fig. 3; Vandenberghe 1983, 103, fig. 26:21; Swimberghe 1985, 184, fig. 3). Where tripod bases with cooking pots do occur (e.g. Swimberghe 1985, 184, fig. 4), the dating of assemblages can often be stretched into the 17th century. For Bruges, Verhaeghe's statement seems to hold true, even continuing into the 1500s. The dominance of thumbed feet with cooking pots is not restricted to Bruges, but also characterises the vessels at Middelburg. For example, all cooking pots published for the late 16th- to early 17th-century upper and lower court garderobe chutes of the castle are based on thumbed feet (De Clercq *et al.* 2007, 9, fig. 6, 10, fig. 7:10-19 16, fig. 11:85-89; Poulain, De Grootte and De Clercq 2013, 11, fig. 8:15, 17). The situation is less clear for the

Saint Isabella fort, as only two cooking pots were found preserved with both thumbed feet and a tripod base. However, unpublished vessels for the Mijnplein-site in Ostend (Pieters *et al.* 1995) consistently have thumbed feet, and also in the adjacent community of Oudenburg thumbed feet were associated with cooking pots (Kellner 2010, 26). A lack of research for the area to the west of Ostend currently makes it difficult to draw the western boundary of this phenomenon. To the south, this coastal influence stretches out to the Boudelo abbey at Klein-Sanaai, where cooking pots on thumbed feet were found in assemblages of the late 15th to late 16th century (De Smet 1989, 21, fig. 3, 23, fig. 4). Further south, cooking pots in Ghent already have tripod bases, although the tripod bases of the examples published by De Bisscop *et al.* (1985) may also be the result of their 17th-century dating. That the Ghent potter Jan van Eechaute signs his documents with a drawing of a tripod cooking pot (Laleman 1997, 42), furthermore reinforces the observation that the coastal influence did not reach as far south. The cultural zone with thumbed feet did incorporate Zeeland. Closely linked-up thumbed feet are namely identified by Ostkamp (2012, 53) as a typical Zeeland characteristic. This cultural zone thus seems to run across boundaries (unsurprisingly, given the political unity during the greater part of the 16th century). However, the Flemish coastal influence does not reach all too far into the present-day Netherlands. Sixteenth-century cooking pots from Bergen op Zoom consistently have tripod bases (Groeneweg 1992, 59, fig. 26). Despite its proximity to the coast, Antwerp is also characterised by a different potting tradition, with tripod cooking pots (e.g. Bungeneers 1992, 17, fig. 6:4-5; Veeckman *et al.* 1992, 41, fig. 13:1, 4; Veeckman 1996, 51, fig. 3, 78, cat. 1-2, 79, cat. 3). It can be seen as a continuation of medieval times, when Antwerp cooking pots are already equipped with a tripod base (De Groote 2008a, 422). The *Blauwhof* also seems to fall within the Antwerp sphere of influence, as only tripod bases were identified. This is not the mere result of the dominant 17th-century dating of the assemblage. As was argued above (see '7.5 Discussion'), a considerable number of finds should be dated to the late 16th century. Either the Waasland region should be regarded as a transitional zone between coastal Flanders and Antwerp, or the occurrence of tripod bases in Steendorp is the result of the Antwerp origin of the Ximenezes. The idea of the Waasland as a mix of different ceramic traditions has already been suggested by De Groote (2008a, 421). For the rest of inland Flanders, tripod cooking pots seem to be the norm. Among other sites, published examples can be found for Brussels (De Poorter 1995, 127, fig. 99:2; Van Eenhooge 1999, 289-291) and Geraardsbergen (Beeckmans and Laurijns 1978, plate 1:12).

It should be stressed that thumbed feet as a possible regional and chronological marker can only be used for cooking pots. For other forms (e.g. dripping pans, plates and large carinated bowls) it loses all geographical relation. Moreover, its use continues beyond the turn of the 17th century (in contrast to the cooking pot), even on a shipwreck dated after 1685, thumbed feet were still found to be present with a plate (Janssen and Vlierman 1990, 7-8).

De Groote (2008a, 417, 422) also considers the flat, pinched handle as a core feature of vessels in Bruges and the coastal area. However, for the early modern period, it seems that this handle type is common on many sites, losing its connection to the coastal region. Telling examples are the productions in Aalst (Bracke and Van Hove s.d., 143, fig. 161) and Bergen op Zoom (Groeneweg 1992, 57, fig. 24). However, it can be observed that hollow handles are generally lacking in this area. This handle type does occur commonly outside this zone, with many examples in Brussels (De Poorter 1995, 81, fig. 57:168; Van Eenhooge 1999, 282, fig. 14:128), Ename (De Groote and Lemay 1993, 408, fig. 10:1; Lemay 1995, 296, fig. 8:1), Geraardsbergen (Beeckmans and Laurijns 1978, plate 1:11), Ghent (De Bisscop *et al.* 1985, 91, fig. A18-19) and Petegem (De Groote 1992, 349, fig. 19:1, 3-4).

Concluding, it seems that cooking pots with thumbed feet are more commonly found with assemblages of the 16th century in the coastal area. This coastal zone stretches from Ostend to Zeeland, including parts of the Waasland and likely continuing further along the coast to the west. Changes occur at the turn of the 17th century, after which thumbed feet are gradually replaced by a tripod base. This change in base could be linked to a process of increasing standardisation. The impact of changing cooking techniques should, however, not be omitted. In the evolution toward increasingly more open shapes, thumbed feet are just no longer practical. This ever-continuing process makes that eventually also the tripod base will go out of use. The development of the kitchen stove in the 17th century, entailed lower forms with flat bases, allowing a better heat distribution (Bult and Nooijen 1992, 71). However, the loss of the cooking pot with thumbed feet does not mean that regional differences can no longer be identified with the common redwares. For the 17th century, inland Flanders is characterised by a predominance of hollow handles, while the coastal zone is generally lacking in this handle type. Despite the emphasis in literature on increasing standardisation, I think its effect must thus be mitigated. Regional and chronological differences remain visible throughout the early modern period.

8.1.5 Conclusion

The aim of this chapter was to determine whether there was still chronological and regional variation to be found within the increasingly-standardising early modern ceramic market. In the above I have argued that both types of variation can be identified. Concerning geographical differences, a first general divide should be made between the Southern and Northern Netherlands. It is believed that Flanders's distinctive economic and political history results in a ceramic pattern that is not merely a continuation of the situation in the present-day Netherlands. Moreover, the study of categories, forms and vessel accessories indicated that further regional distinctions can be made within the county of Flanders (Figure 165).

A first area, most to our concern, is the coastal ceramic region, stretching from Zeeland to Ostend and likely beyond. The coastal plain as a distinctive ceramic region dates back to the 12th-14th century (De Groote 2008a, 420, fig. 293) and was found to continue into early modern times. Examples are the thumbed feet on 16th-century cooking pots and the presence of large carinated bowls from Bergen op Zoom. This maritime sphere of influence is not restricted to pottery, but also speaks from the clay pipes, since the pipes for Middelburg were produced according to a Zeeland model (van Oostveen 2015, 11).

Further inland, a second pottery region could be identified, comprising Aalst, Brussels, Ename, Geraardsbergen, Ghent and Petegem. Ceramics here are characterised by the occurrence of hollow handles, pipkins, 16th-century cooking pots with tripod bases and a category in which red- and white-firing clays are combined in a single vessel. The latter could indicate that the Scheldt river, and its tributaries, played an important role in the formation of this ceramic region, allowing the transport of white-firing Tournai clays but also of finished products.

Also in Antwerp tripod cooking pots were found dating to the 16th century. However, I have opted to attribute this region with another pottery tradition, since red- and white-firing clays were not mixed here (except for tin-glazed ware). The influence of this ceramic region was expanded to incorporate Temse. At the *Blauwhof* no cooking pots with thumbed feet were found, but, by contrast, the particular type of the single-handled cooking pot was present. It are two observations which differentiates the site from the coastal zone to the north.

The Waasland region, of which Temse forms part, should likely be seen as a transitional zone between different urban centres and ceramic traditions. While the rural environment has been related to elevated redware percentages in the 17th century (Laleman 1997, 39), De Groote (2008a, 421) has noted that Waasland ceramics show a mix of regional features in medieval times. The fact that this mix of characteristics continues into the early modern period is hardly surprising, given the location of the region between the coast and the Scheldt, and its proximity to Antwerp and Ghent.

Finally, also the area around Tongeren should be considered as a region with a ceramic tradition of its own. The in comparison many stoneware and whiteware vessels should probably be explained by the proximity of the city to both the Meuse river and the production sites at Aachen and Raeren.

Concluding, despite the often-argued serial production (Bitter 1993, 99), regional and chronological differences remain visible with early modern ceramics. The current state of research allows to distinguish four areas with different ceramic traditions, that is (1) the coastal zone, (2) inland Flanders, (3) the city of Antwerp and its hinterland, and (4) the city of Tongeren and its surroundings. As a possible fifth area, the Waasland could be added as a transitional zone between the former three.



Figure 165 Early modern ceramic regions in Flanders.

8.2 Interpretation

8.2.1 Introduction

The interpretation of pottery *as an indicator of changing social, economic and behavioural patterns is arguably the ultimate goal of any work done on pottery* (Verhaeghe 1993, 14). In this chapter, the focus therefore lies with the multiple roles of material culture in the many transformations of early modern times, against the background of conflict.

8.2.2 Warfare and the shift to a ‘New Luxury’?

Since the ‘Material Turn’, much of the historical debate has been dominated by the transition from an ‘Old Luxury’ to a ‘New Luxury’ pattern. One of the research questions in this thesis was to determine whether this transition was determined by the acts of war. For now, I have to conclude that the shift to a new consumption pattern was only partly or indirectly influenced by warfare. The prevalence of tin-glazed ware, whiteware and stoneware indicates that the troubles did not constitute a considerable obstacle for the development and distribution of these goods. That Flanders remained relatively well-connected to pottery production sites, despite the troubles of the Eighty Years’ War, is also evident from historical sources. Probate inventories for late 16th-century Antwerp do not testify to any crisis, bearing in mind that the city was sacked in 1585. Research shows

that during that period an increasingly-larger number of households possessed of maiolica vessels (Baatsen, Blondé and De Staelen 2017).

Although the evolution toward more comfort seems to be detached from the acts of war, the provenance of and decorations on these new goods do seem to be determined by the troubles. For example, the migration of maiolica potters to the Northern Netherlands formed the incentive for a large-scale production from the late 16th century onward, while in the Rhineland, the migration of Siegburg and Raeren potters to the safer Westerwald signified the start of a large-scale production of the characteristic cobalt-blue-decorated stoneware. The troubles do not only determine the production level, but also influence the choices made by consumers. For example, the decline in the consumption of Spanish products from the second half of the 16th century onward, has been related to the conflict of the Eighty Years' War (Ostkamp 2012, 67).

The transition to a 'New Luxury' pattern is generally associated with the second half of the 17th century, see for example De Munck (2008, 197, 216) who, in his study of Antwerp's craft guilds, identifies a shift to less expensive and more fashionable products from the 1650s onward, while in the (late) 16th century, the demand would still lie with luxury products of an added value. The data in this thesis, however, shows that ceramics were decreasingly used to express economic capital, already in the late 16th century (with the possible exception of Portuguese redwares). Whereas maiolica was reserved for the well-to-do in the 15th and early 16th century, the late 16th-century pottery market seemed to have opened up to a large diversity of social groups. In this market, *maiolica satisfied the demand for tableware of intermediate value* (Golthwaite 1989, 17). Maiolica, certainly for late 16th-century Flanders, can thus hardly be considered a luxury product (Golthwaite 1989, 19-20). As pewter plates remained more costly than the ceramic alternative, the use of maiolica has probably little to do with conspicuous consumption. Golthwaite (1989, 23-25) rather links it to a change in the variety and quality of food, a new table etiquette and an increasing individualisation of society, with comfort and pleasure as important values (Baatsen, Blondé and De Staelen 2017). From the late 16th century onward, goods can be seen as *conveniencies, uniting tasteful decoration, utility and increasingly hygiene* (Pennell 2010, 29). It should moreover be noted that the shift to a 'New Luxury' consumption pattern did not necessarily entail a more comfortable life. Very fashionable pieces (e.g. the porcelain *klapmuts* at Middelburg's castle, Figure 89) were probably often *displayed in rooms that were used only on special occasions, if at all* (Rittersma 2010, 150).

Despite the fact that objects no longer exclusively served as a means for economic distinction, a social potential remained present within them. The following chapter will evaluate this social use of pottery.

8.2.3 Are ceramics social?

In the theoretical framework, it has been argued that *everything is social* (Hodder 2004, 36). Throughout this thesis it was illustrated how ceramics functioned within this 'social'. The following paragraphs will stress some of the main lines of how ceramics connect to practice and how the meaning associated with pottery is multiple and subject to change over time and region.

8.2.3.1 Material culture: practice, field and capital

During the 15th and 16th century, being noble was *first and foremost a form of social recognition*. As no system existed to establish who was noble or not, a person was *basically noble if considered as such by his contemporaries* (Buylaert, De Clercq and Dumolyn 2011, 393). While seigniorial lordship was the key component of a noble identity, it is by emulating a noble lifestyle, the *vivre noblement*, that persons were eventually perceived as such (Buylaert, De Clercq and Dumolyn 2011, 395). An aspired noble identity thus involved the display of symbolic capital (De Clercq, Dumolyn and Haemers 2007, 31). For ceramics, this concept of symbolic capital, and not exclusively economic capital, is important, as it renders these generally-cheap commodities powerful tools in the construction of an elite identity. This is particularly well illustrated by a Siegburg drinking cup (Figure 81:1), associated with the high-end practice of wine consumption, and a Sevillian *escudilla* (see Figure 76:1 and 'Changing and multiple meanings'). Symbolic capital is also bestowed on goods of monetary value. The presence of Valencian lustreware on several 15th-century castles evidences the need of displaying symbolic capital for someone to be perceived as noble. It is a practice that does not only characterise the lives of Pieter Bladelin or Guillaume II Hugonet. The durability of goods and the meaning associated with them makes that this practice of identity-building was continued, for example by Hugonet's daughter and son-in-law in the use of a late 15th- to early 16th-century Montelupo plate. This practice of *vivre noblement* was also continued under the 17th-century Ximenez family. However, with a change in field, new rules applied to the game, in which the Spanish court was the example set to follow. A resulting change in material culture could be noticed, in which Portuguese redwares took up an important role, as an acknowledged category within the Antwerp elite.

Whereas an elite practice was clearly determined by and continued in the use of pottery, ceramic objects also functioned in the (re)creation of other groups. Different social groups namely have different consumer preferences, following their different habitus. For example, the Poor Clares made use of early Low Countries maiolica drinking cups to inscribe them in an already-existing monastic tradition. The sociability of drinking games, with the *drinkuit* as a much-occurring form in religious contexts, must have taken up a particular place within this everyday life as a nun. Although well-

connected to the outside world, material culture was also used to structure the secluded life inside the convent walls. The choice for not marking ceramic vessels possibly both reflects and maintains a dietary practice, specific for the Poor Clares. A dietary practice that is also characterised by its distance to the kitchen. The presence of chafing dishes, as a form particularly found in monastic contexts from the mid-15th to first half of the 16th century, is evident of a new comfort, in which the sharing of a meal is no longer dependent on the proximity to a hearth (Ravoire 2006, 314). The expression of identity within the seclusion of a particular field can also be seen for the Ximenezes, for which it has been argued that the use of Portuguese faience functioned in the amicable bond between members of this single family.

Finally, similar practices of identity-building have also been attested for soldiers, both at the Saint-Isabella fort and Middelburg's castle. This soldier's identity will be dealt with in one of the following chapters (see '8.2.3.3 A soldier's identity'). First, we will consider the multiple and changing meanings of crockery.

8.2.3.2 Changing and multiple meanings

The meaning of objects is determined by the context in which they find themselves during a certain stage of their social life. That the meanings of ceramics are multiple and change over time is respectively illustrated by a Valencian lustreware dish (Figure 76:2) and Italian maiolica (Figure 77). Both categories have been associated to the cult of the Holy Virgin (De Groot 2014) or the cult of the Holy Name of Jesus (Blake 1999; Blake *et al.* 2003) for the 15th and first half of the 16th century. Considering the lustreware dish, other factors should be added to the choices made in acquiring and using these goods. Its meaning can be sought in the established political bonds between Burgundy and Aragon and the role played by Bladelin in this process. Through its use and display, Bladelin positioned himself among European courts, advancing his capital in search of a noble status. For the Italian maiolica, then again, meaning seems only to have shifted at the turn of the 16th century, when the category loses its exclusive connection to monastic sites. The presence of a 1490-1510 plate at Middelburg's castle shows that Italian maiolica was now also used in a lay context, expressing the status of lord Guillaume II Hugonet and his successors to the castle's visitors. Meaning, however, once again changes at the late 16th century, when these early 16th-century maiolica vessels were discarded.

In her study of the incorporation of pre-Reformation artefacts into a Protestant religious context, Tarlow (2003, 114) observed that *reformers recommended the sale, destruction or secularization of objects likely to be put to idolatrous purposes*. She furthermore states that this destruction is hard to grasp as it leaves only little material traces (Tarlow 2003, 114). However, archaeology in the context of the Eighty Years' War is seen to be an excellent help in studying this particular approach toward the other's material culture. It illustrates how, at the same time, objects can mean different things to different people.

Even though the Roman Catholic occupants at Middelburg's castle periodically made way for Protestant troops, the material culture that lingered around remained associated with these previous occupants. The conflicting beliefs crystallised in these goods probably resulted in their destruction. The different meanings of pottery was also attested for the 17th century. This is best illustrated by the find of Portuguese faience. As these are never associated with their Portuguese provenance in probate inventories, it was suggested that the meaning of these faience vessels was not clear to the notaries who drew up those documents. This in contrast to those who were directly involved in the purchase, giving and receiving of these vessels, for which Portuguese faience was associated with values of friendship, love and marriage.

Moreover, the meaning of objects was found to change between regions. This was particularly the case for the Plain White *escudilla*. Because of the myriad inclusions of this form type in everyday scenes (e.g. Figure 166), it is commonly associated with the material culture of the common Sevillian (Marken 1994, 142). However, the fact that it was found adjacent to what is presumed to be the reception room of Middelburg's castle shows that its meaning has changed during its transport to the Low Countries. From a common household good in Sevilla, the *escudilla* now functioned in a process of display amongst the Flemish elite.



Figure 166 Kitchen Maid with the Supper at Emmaus or *La Mulata* (c. 1617-1618), Diego Velázquez, National Gallery of Ireland. A Plain White *escudilla* can be seen in the lower right corner.

8.2.3.3 A soldier's identity

A question of paramount importance to this thesis lies with the material manifestation of a military identity, as it has previously been argued for the English Civil War that material culture played an important role in the maintenance of a garrison (Askew 2013, 32).

In searching what it meant to be a soldier in the early modern Low Countries, smoking comes up as a recurrent habit (e.g. Figure 167). It is believed that English soldiers were responsible for the introduction of pipes into the Low Countries (van Oostveen 2015, 29). The Dutch soldiers that were fighting together with these English soldiers were amongst the first social groups to adopt this custom of smoking in the region, already in the 1620s and 30s. The military connection to the consumption of tobacco is not only true for the Low Countries but has also been suggested for Bavaria, where the custom is believed to have been spread by foreign soldiers during the Thirty Years' War (Mehler 2009, 318). The early adoption of tobacco consumption by soldiers and the common nature of the practice reinforced their group cohesion. It should thus come as no surprise that the earliest pipes in Flanders come from the castle of Middelburg (van Oostveen 2015).



Figure 167 Soldier lighting his pipe from an oil lamp, Jan ter Borch, 1634-1642 (Boijmans Collection, Rotterdam).

A painting by Jacob van Oost (Figure 168) clearly shows how smoking is intertwined with the act of drinking. Both serve as a pastime, a form of release and give courage when needed (Askew 2013, 47). The expression of Dutch courage, as in bravery acquired by drinking alcohol (pot-valiant), finds its origins in the 17th-century conflicts. As has been stated for smoking above, drinking furthermore contributed to the formation of a soldier's group identity. It is thus of no coincidence that the print of *The English Irish*

Souldier (1642) has two drinking cups as knee caps. The social role of alcohol is reflected in a couple of ways. Communal drinking is one of these ways to bond a group together. The excavations on Middelburg's castle yielded several drinking vessels, probably belonging to soldiers, that were to be used in a convivial setting. A small military boot beaker in glass is undoubtedly the best example (De Clercq *et al.* 2007, 24, fig. 15:10). The fact that these drinking vessels were discarded also holds value, especially when they are still intact. This can be illustrated by a late 16th-century stoneware tankard, found in one of Middelburg's castle's lower court garderobe chutes, containing a punched inscription with the initials AD (Poulain, De Groote and De Clercq 2013, 15, fig. 11:11). The hypothesis has been raised that these initials refer to the canon Adolf d'Hooge, residing at the castle in 1578-1579, until it was plundered by Calvinist troops. Together with the canon, these troops may have thrown out his very own drinking vessel, as a symbol of Roman Catholicism. Stoneware seems to have been particularly fit to express political sympathies, see Gaimster (1997, 153-154). By depicting soldiers (Figure 139:19), some stoneware jugs made reference to its users, while others were used as a means of propaganda (e.g. the sherd on Figure 139:21 referring to Wilhelm von Nesselrode and his wife, both supporters of the Spanish cause, or the fragment on Figure 82:8 bearing the escutcheon of the Protestant king of Denmark). When using such jugs the respective soldier publicly expressed his political allegiance, pledging to his fellow soldiers, and ultimately, their Catholic or Protestant ruler.



Figure 168 An interior with soldiers drinking, smoking and playing cards, Jacob van Oost the Elder, 1635 (private collection: Johnny Van Haeften Ltd./Bridgeman Images).

This use of pottery as a means of expressing political allegiance continued well into the aftermath of the Eighty Years' War, not only in drinking vessels but also in eating utensils, as is illustrated by a faience plate found in Middelburg, depicting Prince William III (Figure 72:7). Residue analysis (see '4.5 Dietary practices') and historical sources (e.g. Morineau 1963, 530) suggest that a soldier's diet did not differ significantly from a civil one. However, differences may lie in the way this food was prepared and consumed. The occurrence of small cooking pots in military assemblages has already been raised above (see '8.1.4.2 Small cooking pots?'). Although soldiers themselves were responsible for their own cooking equipment, an almost-consistent choice was made for cooking pots with small dimensions. While it were probably practical motivations which inspired them to do so, their common dietary practice differentiated these soldiers from those men and women cooking in a civil context, in turn reinforcing a military identity. Eating utensils could also function in a soldier's social discourse. The nearly-complete lack of tin-glazed ware at the Saint-Isabella fort was identified as a diagnostic feature of a (Spanish) military material culture, possibly resulting from the conscious choice for not using plates of a Dutch signature.

Those conscious choices also determine which eating utensils are discarded or not. As a last example, the late 16th- to early 17th-century porringers at Middelburg's castle are once again mentioned (Figure 169). As with the tankard of Adolf d'Hooge, these porringers may have been deliberately discarded by Protestant soldiers, because of the link between the Marian texts on their rims and Roman Catholicism.



Figure 169 Redware porringers from Middelburg's castle's upper court garderobe chutes with a sgraffito (left) and slip (right) decoration, reading O MATER DEI: MEMENTO MEI.

Although the evidence is still scarce and fragmented, the finds from Middelburg's castle and the Saint-Isabella fort seem to indicate that these places were not sterile but formed the context in which soldiers actively created their own group identity, be it by the rituals involved in communal drinking and smoking, the public expression of political allegiance or by deliberately discarding or not using the enemies' products. In case of the English Civil War, the importance of communal drinking and pledging in shaping a soldier's identity was as such, that toasts were even proposed with water in lack of alcohol (Askew 2013, 205). Contrary to this conflict is that no use of outdated ceramics could be identified here. A hysteresis effect might however well be visible in the metal military

finds, as a Portuguese weapon, dated 1500-1575, did probably not arrive in Middelburg before the last quarter of the 16th century (Scheerlinck 2016, 161).

8.2.3.4 Ceramics and religion

The porringers with Marian inscriptions bring us to discuss the relation between ceramics and religion. Is there any evidence in the ceramics for a religious identity? Surprisingly, the material culture at the Poor Clares convent provided no indications of a religious identity. The seclusion of convent life and the fact that Roman Catholicism was still largely unchallenged in the first half of the 16th century possibly made public statements on religious affiliation less necessary. I am, however, wary of rash conclusions, given the limited number of vessels in the assemblage.

The lack of vessels with reference to religious identity at the Poor Clares convent stands in contrast to Middelburg's castle and the *Blauwhof*, where several pots were decorated with a religious theme. It seems that, with exception of Italian and Spanish maiolica for the 15th and first half of the 16th century, religious decorations on pottery become more prevalent from the later 16th century onward, as evidenced by the several redware porringers with Marian texts (e.g. Figure 169), continuing into the late 17th century. The fact that the surge in religious decorations coincides with the Eighty Years' War and subsequent conflicts is unlikely coincidental. These decorations are thus probably as much of a political statement as a religious one.

However, to make a distinction between a Roman Catholic and Protestant affiliation remains speculative at best, given the fact that tin-glazed plates with Marian texts were also produced in the Northern Netherlands (Korf 1981, 202-203). The presence of a tin-glazed plate with a MA(RIA) inscription at Middelburg's castle (Figure 73:4), could either indicate that Protestant occupants alternated with those of Roman Catholic belief, or could be illustrative of a new hybrid identity, in which the Mary devotion, as of old, found its way into the new religious practice. It is but in a few cases that vessels can be clearly associated with a Roman Catholic religion. Examples are the find of the already-mentioned redware porringers, a tripartite drinking jug, referring to the Holy Trinity (Figure 84:5) and a set of religious toys in the upper court garderobe chutes of Middelburg's castle (De Clercq *et al.* 2007, 32, fig. 18). In case of the Ximenezes, the plate with the Parable of the Sower is similarly to be associated with Roman Catholic faith, as it has been argued that they were fully inscribed in Antwerp's Counter-Reformation culture.

Finally, on a lower level, ceramics also attest to the dominant Christian culture that characterises the Low Countries. The many moralising proverbs on faience and stoneware and the ideas conveyed by slipware remind the consumers of food and drinks that they should adhere to the broader values associated with a pious life. Marriage is one of the cornerstones of such a pious life. As a marital gift, ceramics were often part of this

ceremony (Ostkamp 2004, 118-151). Also plain tin-glazed vessels can be framed within these Christian-humanistic values, as the white colour can be linked to *purity and household cleanliness*. As such, vessels covered in a plain tin glaze acted as a *metaphorical antidote to polychromy and excessive ornament, which could be associated with profligacy and vanity* (Gaimster 2012, 312).

8.2.4 Archaeological (in)visibility of women and children

Women, and children by extension, were a customary sight on the battlefield of Flanders (Henry 1992, 76). Although I recognise the problematic nature of correlating certain forms of material culture to gender (Gilchrist 1994, 4), it was still attempted to search evidence to the presence of women and children in a military environment. To do so seemed possible, as a certain division of labour was retained during times of war and close links existed between foreign military troops and the local population, with intermarriage as the best example of this relationship (Henry 1992, 87). Whereas children can be identified on the basis of toys, the presence of women remains hard to grasp. With the possible exception of spindle whorls, women are archaeologically invisible in the present study of ceramics. As was already observed for 17th-century Huguenots in Spitalfields (Jeffries 2001), there are limits to ceramics in the detection of social groups. Other material categories might be more revealing, although their potential has yet to be assessed. The study of metal objects nevertheless looks promising, once again certainly for children, as evidenced by the identification of religious toys at Middelburg's castle (De Clercq *et al.* 2007, 32, fig. 18).

8.2.5 Cooking techniques and dietary practices

Richelieu observed that *food was the fuel of armies, and that many more armies perished through lack of food [...] than through any enemy action* (as quoted in Dursteler 2012, 88). Currently, it are especially traveller's accounts (e.g. de Rochefort 1672; Moryson 1908; Havard de la Montagne 1913), together with several cookery books (e.g. Anonymous 1752; Jansen-Sieben and van der Molen-Willebrands 1994; Schildermans, Sels and Willebrands 2007) that make up a considerable part of our knowledge on dietary practices in the early modern Low Countries. However, as these are often products made by and written for the better off (Albala 2012a, 3), the information available is biased toward certain social groups. The following evaluates how archaeology, and ceramics in particular, contribute to this debate.

There are certain limits to what the ceramics can say about changing cooking techniques and dietary practices. Nevertheless, several observations are worth mentioning. Concerning tableware, the popularity of the plate is indicative of the increasing individualisation of the mealtime. For forms related to the preparation of food,

it is clear that cooks were working with heavy cooking utensils, placed above an open fire or in hot embers. The use of the latter was apparently advised for sauces or small dishes (Albala 2012b, 128). The development of the kitchen stove in the 1600s has already been touched upon on multiple occasions in this dissertation (Moulin 2002, 50). It is uncertain whether this kitchen stove rapidly found its way in 17th-century Flanders, as cooking pots remained to be equipped with a tripod base (no longer necessary with a stove). Changes did occur, however, with the development of the stove possibly paving the way for the observed widening of cooking pots, since heat was now distributed over a larger surface.

Moreover, the lack of particular forms for cooking could perhaps also be telling. An example is the lack of dripping pans at the Saint-Isabella fort. Stewing does have several advantages over roasting, producing a good stock and making meat more tender (Moulin 2002, 381). Both advantages are particularly interesting in times of war, when the access to large quantities of high-quality meat was restricted. In that case, stewing does still allow to give a meat flavour to a meal that is largely vegetarian (pers. comm. Anton Eryvynck). Despite the troubles of early modern times, the new French style of cooking, with less spices, new vegetable dishes, the use of fruit, the rejection of sour sauces and sweet-and-sour combinations, and dairy products turning into a prevalent ingredient for butter and greasy sauces (de Nave 1993, 14, 15; Moulin 1993, 23; Albala 2012a, 17-18) possibly did gain foothold in Flanders. For Middelburg's castle, especially the importance of dairy production and consumption was suggested on the basis of the many large carinated bowls. Also the appearance of the form for shaping pies in the 17th century hints at changing dietary practices. While these new styles of eating gradually found acceptance, other fashions were less rapidly welcomed. The best example are the colonial beverages, for which the data in this dissertation (and Flanders by extension) only provided little proof. The reason for the near absence of tea, coffee and chocolate consumption probably lies with their high cost in the 17th century. It confirms earlier work, in which it has been argued that these hot beverages were only widely diffused amongst the lower and middle classes from the 18th century onward (Laan 2003; McCants 2008).

A last topic which I would like to consider, is the value of residue analysis in archaeology. The considerable input of time and financial means has proven to be worthwhile, since the analysis informs us on aspects that cannot be grasped by traditional pottery research, nor by historical studies. As a first, it was possible to identify different food sources used in early modern cooking (fish, meat/dairy, plants and beeswax). Multiple of these foodstuffs were moreover present in single vessels of a different type. It shows that typology is not to be associated with the preparation of a particular ingredient or dish. Furthermore, the possible combined use of both fish and meat as was attested by the residue analysis is thus far undocumented in early modern cookery books. It illustrates how both theory and everyday practice can be poles apart. Information on food preparation also flows from the presence of PAHs and retene, respectively pointing to

cooking over an open fire and the use of pine wood as fuel. Finally, residue analysis informed us on the use of several (undetermined) forms. This observation laid at the basis of the neutral nomenclature in this dissertation, where function and form are generally separated.

8.2.6 Ceramics and building archaeology

Some final words are dedicated to the use of ceramics in building archaeology. Although the study of buildings is obviously first and foremost oriented toward the structural elements of which the buildings are composed, ceramic analysis can add new layers of information. For example, the spatial distribution of vessel forms at the Saint-Isabella fort and Middelburg's castle allowed to (re)formulate some suggestions toward the functional interpretation of spaces. Moreover, it became possible to situate certain structural elements within these spaces. For example, the identification of a fire cover (Figure 50:23) at Middelburg's castle clearly points to the presence of a hearth. Heating was thus not only possible by tile stoves but also through the use of open fireplaces, furthermore confirmed by the presence of PAHs in food residues. Finally, ceramics allow to get a grip on the organisation and circulation of life within these structures. Most telling is the lack of scratch marks in Poor Clares convents, in contrast to those of the Wealthy Clares. It could indicate that Poor Clares did not possess of individual cells but shared a more communal way of life.

8.2.7 Conclusion

One of the basic questions that laid at the basis of this dissertation was whether it is possible to discern different social groups on the basis of ceramics, despite the fact that assemblages underwent different taphonomic processes? Moreover, as a secondary question, it can be added whether it is even possible to recognise the impact of war in the study of material culture?

I believe the answer to both questions is yes, but with reservations. Material culture was found to be closely linked to practice. The different habits of social groups made that these practices could be distinguished and subsequently identified, although context information through additional (art-)historical sources remains necessary to do so. That these differences are not the mere result of comparing different assemblages has been confirmed by comparison to other sites in Flanders and abroad.

Following Giddens (1984, 60-61), the critical situation of the Eighty Years' War formed the context for a privileged insight into these everyday habits. A soldier's identity clearly spoke from their communal ways of eating, smoking and drinking. A first comparison of two military sites in Flanders shows us that there is a certain tradition in the material

culture of soldiers. The active use of ceramics brought this tradition into the present and shaped their future practices. It seems that it is indeed possible to identify this particular social group on the basis of ceramics, as some elements can be regarded as markers of a possible military presence. However, at the same time, soldiers cannot be regarded as a single entity. Pots did not mean the same thing to all soldiers, as seen for the different attitudes toward vessels bearing catholic meaning. However, next to the study of critical situations, ceramic analysis also proved to be a powerful method for the study of social groups that were not directly harmed by the troubles of war, such as the Poor Clares or the Ximenez family.

The impact of war at Middelburg's castle was evident from the environmental remains which revealed a large dependency on local food sources (De Clercq *et al.* 2007). In contrast, no indications could be found for a limited access to the pottery market. This may well be the result of the durability of ceramics, which makes it possible to bridge periods of restricted access. However, the Eighty Years' War did influence the choices made at a production level, but perhaps more important, the choices made by consumers. Material culture was the means *par excellence* to privately or publicly express allegiance to any of both sides of the conflict.

This observation brings me to some concluding words, in which the results of this thesis are summarised, directions are given to the future study of early modern ceramics, and a final reflection is made on the value of early modern archaeology in heritage policy and public outreach.

8.3 Concluding words and future perspectives

8.3.1 Results

After 56162 sherds, this thesis on the archaeology of the Eighty Years' War reaches its conclusion. *Most archaeological treatments of warfare either focus on the causes of war; take macro-level approaches that obscure the actual people involved in warfare; or, if people's actions and activities are considered, the lens is disproportionately focused on the acts of war, which are biased towards the acts of men* (Wilson and VanDerwarker 2015, 1). The innovative aspect of this study is that its perspective was oriented toward the lives of ordinary and less ordinary men, women and children, *treating warfare as a condition of everyday life* (Wilson and VanDerwarker 2015, 3). This approach generated new understandings of early modern material culture, and ceramics in particular.

(1) Middelburg's castle

In addition to the previous study of the upper court garderobe chutes (De Clercq *et al.* 2007), the analysis of the material from the castle's lower court chutes allowed to expand the typo-chronological reference horizon for the late 16th and early 17th century in the coastal area. Moreover it reinforced the interpretations made about the attitudes toward material culture in times of war. The study of the ceramics found in the moat subsequently allowed to evaluate it as in assemblage in itself. Although moats are often estimated to be only of a secondary value, the ceramic analysis provided new and original insights flowing from the scale of the assemblage. The spatial distribution of finds not only made it possible to suggest a functional interpretation of the castle site, the clustering of certain forms and categories in particular parts of the castle testified to the active way in which material culture was used to construct and continue the lord's identity. As such, the analysis of the moat also had its social merits. Finally, the presence of food residues on several vessels inspired to make use of this generally-neglected source of information. Next to advancements on a chemical level, the analysis provided new insights into the dietary and medicinal practices at the castle site. It moreover illustrated how archaeologists should be wary to associate particular forms with a certain function.

(2) Middelburg's Poor Clares convent

The analysis of the Poor Clares assemblage permitted a glimpse into convent life between 1519 and 1550. Beside its typo-chronological interests, the assemblage illustrated how the nuns were well-informed and connected to what happened outside the convent walls. Whereas these Poor Clares are generally believed to live detached from the secular world, the ceramic material suggests the opposite, confirming recent research in which interaction and exchange to the outside world have been argued (Herremans 2013, 194). Through the use of early maiolica drinking bowls, the Poor Clares namely inscribed themselves in an existing monastic tradition. Moreover, despite the rule of Saint Clare, enforcing a life of poverty, the ceramics testified to a comfortable material situation, in which eating was not determined by its distance to the kitchen and in which drinking games played an important part. Finally, Poor Clares did differ from other abbeys and convents in their lack of scratch marks applied to ceramic vessels, in turn pointing to a very own way of structuring the mealtime.

(3) Saint-Isabella fort, Ostend

The narrow date of the Saint-Isabella fort assemblage (1601-1604) led to a better understanding of both the typo-chronology of ceramics at the turn of the 17th century and their maximum use life. Moreover, the spatial distribution of finds laid at the basis of a (re)interpretation of the functions associated with the excavated buildings. The undisputed military nature of the assemblage subsequently allowed to formulate some

interesting insights into a soldier's identity, of which the use of small cooking pots and the choice for not using the enemies' products are arguably important components. Finally, the study of the assemblage considered the presence of women and children, which were undoubtedly present within these military environments. It was here that we touched upon the limitations of ceramic analyses, with a mere two finds possibly attesting to the presence of civilians.

(4) *Blauwhof*, Steendorp (Temse)

A final site was the *Blauwhof* residence of the Portuguese Ximenez family. An analysis of its ceramic collection allowed a better insight into the lifestyle of migrants in the 17th-century Flemish countryside. The Ximenezes were found to possess of a hybrid identity, in which some Portuguese traditions were retained, while others were adapted to the new environment. Especially the Portuguese imports proved to be interesting. Comparison to 17th-century probate inventories revealed a paradox in the appreciation of Portuguese redwares and faience. While the former probably served in the imitation of court life, as an acknowledged object amongst the Antwerp elite, the latter functioned in a more intimate relationship between the people directly involved in purchasing, giving and receiving it as a marker of friendship, love and marriage.

8.3.2 Further research

If asked what this dissertation would benefit from, 'more data' would be the immediate response. The greatest shortcomings of this study are the limited number of sites and the geographical limit of the research area. Although a time-efficient methodology for the processing of large early modern assemblages has now been set up, getting there took some time. Processing more assemblages would have strengthened the typological insights and social interpretation of ceramics, but was simply not possible within the given time frame. Future research on the archaeology of the Eighty Years' War will therefore greatly profit from additional ceramic studies, of which the emphasis no longer concentrates on urban and religious sites, but incorporates a wider range of social groups over a larger geographical area, filling up the myriad blind spots currently existing.

Advancements can certainly be made on a methodological level. Further digitalisation seems the way forward. Several experiments have been made for the 3D-registration of finds (Figure 170). However, additional technological innovations are needed to efficiently deal with the high-glossy glazes so often applied on early modern ceramics. Ceramic studies have always been a bit reluctant of incorporating digital tools, stemming from a tradition of connoisseurship. Nevertheless, this study has illustrated the potential of spatial analysis. Plotting sherds was already valued as important by Moorhouse (1986, 86), I hope the time is now finally ripe for the incorporation of a GIS environment in

Flemish pottery analyses. Within this distribution of pottery, particular attention should be paid to crossfits, as it allows to understand patterns of refuse disposal.



Figure 170 Still from a 3D model of a stoneware storage jar from the *Blauwhof* by De Logi & Hoorne (Erfgo3D).

Chemical analyses did find early acceptance in pottery studies (e.g. Hughes and Gaimster 1999). The application of a geochemical toolbox to early moderns ceramics in Flanders is, however, still in its infancy. This thesis has explored the possibilities of analysis on surface residues, but the combined approach of both petrographical and chemical fabric analyses has also proven to be of high potential (e.g. White 2012). However, I have opted not to explore the latter two methods, as the emphasis of this dissertation laid with the processing of large collections of ceramics, not with the analysis of a limited number of samples. I would encourage other studies to do just that. As such, they might greatly contribute to the discussion on whether redware ceramics are now mainly locally produced or imported.

This discussion would also greatly benefit from the study of early modern kiln sites. As these sites are currently lacking, with exception of one (Bracke and Van Hove s.d.), I stress the importance of the material from these kilns in Aalst being, at least partly, published. Moreover, when an early modern kiln will be found in a future commercial excavation, I hope the necessary means can be found that have it properly dug and studied.

On an interpretative level, interdisciplinary research is the way forward. Concerning history, the interaction with probate inventories was found promising. Although ceramics are generally omitted from probate inventories as they were not worth much

money (Bedell 2000, 238), I believe I have illustrated the potential of this source of information in archaeological interpretation. Moreover, also art history is a logical partner, providing some unique insights into the use and place of goods in everyday households. For a methodology and further research questions, see Jacobs and Peremans (1977).

Finally, future research should look abroad, and embrace the international context in which it is situated. As a test ground for military innovations in early modern Europe, the study of fortifications and weaponry in the Low Countries will allow a better understanding of their development. Moreover, the study of material culture, and in case ceramics, can indicate how people coped with the many transformations caused by warfare. This is a living debate on a European level, in which research on the multiple responses to the material culture associated with the religion of the other holds much promise. In this debate, the Low Countries do not only operate as a passive framework to which other countries can compare. Because of the myriad nationalities directly involved in the conflict of the Eighty Years' War, many of the social and cultural practices were taken back home.

8.3.3 Early modern ceramics in a commercial world

A next part of this thesis considers the place of early modern archaeology, and the study of early modern pottery in particular, in the current commercial context of Flemish archaeology. At the basis of the current heritage policy deciding what to excavate or not, lies the assessment, an evaluation of the scientific potential (Ervynck, Debruyne and Ribbens 2015, 9). I have raised the concern that the lack of knowledge on early modern ceramics and the absence of a clear research framework would stand in the way of the processing of any early modern assemblages (see '1.7 Another ceramics thesis?!').

I hope, by now, to have illustrated that early modern archaeology has it right to exist next to the study of other periods. As the stage for many European developments, an archaeology of early modern Flanders is valuable, both at an academic level and in the creation of public support for the discipline. If early modern archaeology can now indeed be considered as a fully-fledged part of heritage policy, how do pottery studies fit into this picture?

I am aware that in the current commercial context, processing all early modern assemblages in depth is a utopia and perhaps even not desirable. Instead, I plead for a selection in function of the research agenda stated above (see '1.6 Research agenda'). The limited means are better invested in the study of narrowly-dated assemblages, belonging to known social actors, in order to broaden our knowledge on those research question that are pertinent, both at a national and international level.

Moreover, for the first time in Flanders, this thesis gathers a large body of information on early modern pottery and provides some tools to aid in the processing of those often large assemblages. Its use mitigates the considerable investments of time and money involved in the study of early modern pottery, resulting in an economic gain for all parties involved. As such, the economic finality that laid at the basis of this scholarship has been attained. Moreover, I hope it will form an incentive to move from the first step that is the assessment to the processing of a well-thought-out selection of assemblages.

8.3.4 Early modern ceramics and the wider public

Despite the fact that early modern archaeology is not always greatly appreciated by archaeologists themselves, I believe it is valued differently by the wider public. As a not-so-distant past, the early modern period bears great potential in contributing to the public support for archaeology, so often stressed and discussed, but not easy to achieve. Especially the strong interdisciplinary approach, providing different perspectives, serves as a valuable asset in creating a narrative that appeals to people of different ages and interests.

In the introduction of this thesis (see '1.4.2.4 Sites of conflict'), the Interreg projects on the *Staats-Spaanse Linies* were mentioned in which the many forts in the region were reconstructed and incorporated into a touristic-recreational heritage trail (Figure 171). Stressing the need of archaeological supervision during those reconstructions, I believe such initiatives are nonetheless valuable. The low complexity and high visibility of the earthen structures makes that they are easily comprehensible to a lay audience.

However, public outreach should go beyond these moats and ramparts. The tactility of ceramic vessels, and the food that was served in them, has proven to be a great tool for raising curiosity for the past. For example, the *Blauwhof covilhete* inspired a modern interpretation of the Portuguese milk dessert for a presentation on early modern food consumption (Figure 172), while some of the Middelburg vessels figured in a historical cookery book by Van Wittenberghe (2016)(Figure 173).



Figure 171 Touristic-recreational heritage trail, incorporating *Het Verbrand Fort*. © Kustfotografie, Misjel Decler.



Figure 172 *Blauwhof*-inspired *covilhete*. Pastry and photo by Jeroen Van Vaerenbergh (<http://defoodarcheoloog.be>).



Figure 173 Middelburg ceramics and food photography, as published in Van Wittenberghe (2016). Courtesy of Annelies van Wittenberghe and Kim Van Liefferinge.

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Appendix: selection of events related to the town of Middelburg-in-Flanders

Date	Event
c. 1280	Farmstead founded by the abbey of Middelburg-in-Zeeland on grounds gifted by count Gwijde van Dampierre (Martens 2011, 283-284)
c. 1403-1410	Pieter Bladelin born in Bruges (Martens 1997, 176)
1433, August 5	Deed of sale of the <i>Hof van Middelburg</i> to Colaerd De Fever (Martens 2011, 284; 2012b, 323)
c. 1440	Colaerd De Fever dies (probably in Jerusalem)(Martens 2011, 287)
c. 1440	Pieter Bladelin buys the <i>hof te Middelbuerch</i> from his sister Margareta Bladelin, widow of Colaerd De Fever (Martens 2011, 287)

- 1448 Pieter Bladelin starts building the castle of Middelburg (Martens 2011, 288)
- 1450,
October Pieter Bladelin moves into Middelburg's castle (Martens 1997, 177)
- 1451,
February 13 Pieter Bladelin is allowed to merge his fiefs into the *Hof ende goet van Middelbuerch* (Martens 2011, 288-289)
- 1452 Pieter Bladelin starts building Middelburg's church (Martens 2011, 289)
- 1456 Construction of a canal, connecting Middelburg and the Lieve canal (Martens 2011, 298)
- 1458 Middelburg is granted privilege of a city (Martens 1997, 177)
- 1460,
June 12 Middelburg's church is dedicated (Martens 2011, 303)
- 1463,
February
21-22 Philip the Good stays at Middelburg's castle (Martens 1997, 183)
- 1465,
February 27 Simon de le Kerrest and George Baert inform the bailiff, mayors and aldermen of Aardenburg that Philip the Good has granted Pieter Bladelin the right to fortify Middelburg with a city gate and wall (Martens 2012b, 321)

- 1465,
March Philip the Good grants a patent for an annual fair in Middelburg, lasting six days with two extra days before and after (Martens 2012b, 322)
- after 1465 First city wall is built (Braekevelt 2012, CXXIII)
- 1468-1470 Hospital is transferred from Heille to Middelburg (Martens 2013, 155)
- 1470, shortly
before
February 15 Pieter Bladelin is ennobled (Martens 2011, 309)
- 1470,
June 7-12-21 Margareta of York, wife of Charles the Bold, stays on Middelburg's castle with daughter Mary of Burgundy. Charles the Bold joins them on June 12 (Martens 1997, 184)
- 1470 First mention of Middelburg's city hall (Martens 2011, 290)
- 1472,
April 8 Pieter Bladelin dies, the fief is managed by his spouse Margareta van de Vagheviere and her cousin Jan de Baenst (Martens 1997, 177)
- 1476,
May 5 Margareta van de Vagheviere, widow of Pieter Bladelin, dies (Martens 1997, 177, 184)
- 1476,
June 20 Guillaume Hugonet (married to Louise de Layé) buys out Joost van Varsenare and Jan de Baenst, becoming lord of Middelburg (Martens 1997, 177, 184; 2011, 293)

- 1477,
January 5 Charles the Bold dies in the battle of Nancy
- 1477,
April 3 Guillaume Hugonet, confidant to the deceased duke, is executed in Ghent (Martens 1994a, 38)
- 1482,
March Death of Mary of Burgundy, causing a rebellion of Flemish cities against Maximilian I (Martens 2015, 20)
- 1483-1485 Jan de Baenst moves into Middelburg's castle with support of Bruges's city council and the Franc of Bruges. The castle most likely had a military function (Martens 2011, 293)
- 1488,
February
22-28 Castle shortly occupied by Guillebert d'Homme with German and Hainaut troops, in name of the archduke. They were driven away by an army under command of Antoon van Nieuwenhove (Martens 1997, 184; Haemers 2005, 252-253)
- 1488,
May 6 Filips van Kleef, confidant to Maximilian I, occupies Middelburg's castle (Martens 1997, 184)
- 1488,
May 12 Maximilian I released from captivity; different attacks on Middelburg's castle of French troops under command of Joos van Halewyn (Martens 1997, 184)
- 1488,
September
25 Joos van Halewyn takes Middelburg's castle with his French troops, supplemented with troops from Bruges, Damme, Ghent and Sluis, ending the German occupation of the castle. The castle is plundered, the city burned and the fortifications (partly) levelled (Martens 1997, 184)
- 1488 First town hall of Middelburg destroyed (Martens 2011, 290)

- 1493 Guillaume II Hugonet (de Saillant) comes of age and inherits Middelburg (Martens 2015, 22)
- 1506, October 7 Death of Louise de Layé, widow of Guillaume Hugonet and mother to Guillaume de Saillant (Martens 2015, 23)
- 1515, June 2 Poor Clares convent is founded, Etienne de Saillant, sister of Guillaume de Saillant, arrives from Lille with five sisters. As the convent is not finished yet, they move into the house of Middelburg's lord, right across the church (Martens 1994a, 38, 40)
- 1519, March 25 Poor Clares move into the convent (Martens 2015, 35)
- 1522, September 24 Etienne de Saillant dies and is buried within the convent, in the middle of the chapter house, under a large tombstone. Clara Huwicx follows her into office (Martens 2015, 36)
- 1537, July 15 Death of Guillaume II Hugonet, fief passes on to his daughter Claude (Claudine) and her husband Maarten van Hames (Martens 1994a, 38)
- 1545 Filips van Ongnies marries Margareta van Hames (Martens 2004a, 300)
- 1562 Filips van Ongnies buys the fief Middelburg from his mother-in-law Claudine Hugonet (Martens 2004a, 300)
- 1572, June 19 Sea Beggars attack Middelburg and destroy parts of the town (Martens 2004a, 305)

- 1577 Pieter de Scermere does some carpentry in *den grooten vischbanc* (the big fish market), suggesting the existence of a smaller fish market (Martens 2012b, 323)
- 1578 The Franc of Bruges assigns Middelburg to captain de Groeve and fifty of his soldiers (Martens 1997, 184)
- 1578-1579 Works on Middelburg's defences (Martens 2004a, 315; 2006, 301)
- 1579,
March Nicolaas van Tielcke is chief captain on the castle (Martens 1997, 184)
- 1579,
May 1 Fifty to sixty soldiers on Middelburg's castle under command of Jacques Van Rijswijck (Martens 1997, 184)
- 1579,
June 16 By this time, Van Rijswijck only had six soldiers left on the castle. Ghent Calvinists plundered Middelburg's church, castle and convent. The Poor Clares sought refuge in the castle's 'white chamber', the other inhabitants also took shelter in the castle. As a result, the great hall was full of cases and packs. During the raid, Filips van Ongnies had his chef Louis van de Steene escape through the kitchen window to deliver a message for help to the Franc of Bruges (Martens 2004a, 310-311; 2013, 169)
- 1579,
June 16
or later Fire on the castle's lower court (Martens 2004a, 314)
- 1579,
October 1 Ghent soldiers, under command of Joos De Hondt leave the castle of Middelburg (Martens 2013, 170)
- after 1579,
October 1 French soldiers quartered on the castle (Martens 2004a, 315)

- 1581,
March Calvinists claim the church of Middelburg (Martens 2004a, 316; 2013, 170)
- 1581,
June 23 Scottish soldiers on the castle are replaced (as they do not act against Catholics) by a company of captain Ouweel and 18 of his soldiers. These are subsequently replaced by the French troops of count Rochepot (Martens 2004a, 316, 319, 322)
- 1581,
November William of Orange visits Middelburg on his way from Bruges to Antwerp (Martens 2004a, 322)
- 1582 Filips van Ongnies is banned from Flanders because of his loyalty to Spanish authority and Catholic religion (Martens 2005, 275)
- 1582-1583 French company on the castle, under command of captain Thierlogne (Martens 2004a, 322)
- 1583,
April 5 Death of Filips van Ongnies (Martens 1997, 185)
- 1583,
May-October Multiple companies on Middelburg's castle, e.g. colonels Lokere and Detrailles, and the English colonel Morghen (Martens 2004a, 322)
- 1583,
October 17 English soldiers get the order to burn the city, as Farnese is approaching. Only six houses remain (partly) standing (Martens 2013, 170)
- 1583,
October Farnese takes Middelburg, a Spanish garrison remains behind under the command of captain Staercke (Martens 2004a, 323; 2005, 278)

- 1584 Troops of captain Staercke are still present (Martens 2004a, 323)
- 1584 Middelburg mentioned as *lamentabile destructie derselve stede* (Martens 2005, 275)
- 1585, December 8-10 Lord van der Mote, a French officer and one of the commanders-in-chief of Farnese, together with different captains, noblemen and servants are quartered in Middelburg's castle (Martens 2005, 277)
- 1586, January Maestro del campo de la Motte Haultepennes and lieutenant Hormes are quartered on Middelburg's castle with forty soldiers (Martens 2005, 277)
- 1586 Death of Margareta van Hames, widow of Filips van Ongnies. Middelburg passes on to their daughter Margareta van Ongnies (Verschelde 1867, 110)
- 1583-1585 Middelburg is fortified: palissades are erected near the city gates and convent bridge, the gates themselves are strengthened (Martens 2005, 276; 2006, 301)
- from 1587 onward Lords of Middelburg do no longer reside on the castle (Martens 1997, 185)
- 1587, August After the taking of Sluis by Farnese, the Poor Clares return to their convent in Middelburg (Martens 2013, 175)
- 1590 Filips van Merode, son of Margareta van Ongnies and Richard van Merode, becomes lord of Middelburg (Martens 2015, 48)

- 1590,
September
10 Many Poor Clares flee to Bruges, in response to an attack by Beggars from Vlissingen (Martens 2013, 175)
- 1590-1595 Different families live on the castle, amongst which that of bailiff Provoost (Martens 1997, 185)
- 1598-1600 Seven soldiers are quartered on the castle (Martens 2005, 297)
- 1599,
March 12 Death of canon Adolf d'Hooge (Martens 2006, 318)
- 1602 Death of Margareta van Ongnies (Martens 2005, 298)
- 1604,
May Poor Clares move from their convent to the castle, as the army of Maurits van Nassau lies before Aardenburg. They are lodged in the *grote salette* (big hall)(Martens 2005, 305)
- 1604,
May 12 Poor Clares leave the castle. A few stragglers throw some household goods into the convent's wells, with the intention to recover it later. The Dutch invade Middelburg, no Spanish troops appear to be present. Inhabitants and farmers who had gathered on the castle are summoned to leave. The convent is (partly) destroyed (Martens 2005, 299, 305; 2006, 297)
- 1604,
July 27 Middelburg is reconquered by Spinola. Lord of Thoricourt is quartered there with a part of his regiment, supplemented by Irish and German mercenaries (Martens 2006, 300-301)
- 1607 Middelburg is described as *een ruïne, desolatie ende destructie ghecommen* (Martens 1994a, 42)

- c. 1605-1609 A plan is drawn of Middelburg's fortifications (Martens 2006, 304)
- 1609 Twelve Years' Truce: Middelburg divided between Spanish and Dutch territories (Martens 2008, 255)
- 1612 Renewal of the church's truss (Martens 2006, 318)
- 1616 A new court room is built on the castle. Jacques Marchant was paid for brick- and reparation works, Jan Palme laid a new floor, and was responsible for the ceiling, windows and doors. The chapel room was also redecorated (Martens 2008, 256)
- 1617 There are still soldiers quartered on the castle (Martens 2008, 259)
- 1617,
April 18 Middelburg is now a county, making Filips van Merode count (Martens 2006, 320)
- 1619,
winter The dykes of Middelburg's canal burst (Martens 2008, 260)
- 1620,
December The Lieve canal floods (Martens 2008, 260)
- 1621,
March 15 Middelburg receives statute of neutrality, the city could no longer be fortified, and no soldiers were allowed to be quartered on the castle (Martens 2006, 323; 2008, 255; 2012a, 325)

- 1621,
April 9 Twelve Years' Truce ends
- 1621,
July 13 Death of archduke Albrecht
- 1621 Middelburg's canal dyke bursts (Martens 2008, 260)
- 1621-1622 Floods: a dam is raised near the southern gate (Martens 2008, 260)
- 1625 Death of Filips van Merode. He is succeeded by the guardians of the minor Filips van Merode II (Verschelde 1867, 122)
- 1627-1628 Reparations to the fortifications and dam of Middelburg's canal (Martens 2008, 273)
- 1629,
March 20 After the early death of Filips van Merode II, the county is continued under Margareta van Merode (Verschelde 1867, 122-123)
- 1630-1631 For the reconstruction of the church's choir, Matthijs Flederix brought 34000 bricks from the convent and 1100 from the Saint-Johns hospital (Martens 2008, 293; 2013, 176)
- 1636 City walls repaired and reinforced (Martens 2008, 274)

- 1640 Reinforcements in wicker and other interventions to counter floodings (Martens 2008, 274)
- 1641 A sluice is built in the moat adjacent to the convent (Martens 2008, 274)
- 1642 Works on the dykes (Martens 2008, 274)
- 1643 Works on the dykes (Martens 2008, 274)
- 1648 Middelburg's prison is established in the castle (Martens 1997, 185)
- 1655 A market barge goes from Middelburg to Bruges and back, rendering any existing local market superfluous (Martens 2012b, 323)
- 1666-1672 Bailiff Lambrechts and his family live on the castle (Martens 1997, 180)
- 1675 Maarten Hauweel becomes bailiff of Middelburg (Martens 2012a, 330)
- 1675 Middelburg's mill is in such a state of decay that mill builder Louys Hebberecht came to check if it was still able to stand (Martens 2012a, 328)

- 1677 French set fire to Middelburg (Martens 2012a, 325)
- 1678 Bailiff Hauweel is tenant of the game reserve surrounding the castle of Middelburg (Martens 2012a, 330)
- 1684 Maarten Hauweel is no longer bailiff of Middelburg (Martens 2012a, 330)
- 1685 Wooden bridge to the castle is repaired (Martens 2012a, 333)
- 1685 Bishop Humbertus de Praecipiano reports about the abuses by the administration of Middelburg's church (Martens 2012a, 331)
- 1689,
April Countess Marie-Thérèse de Crévant d'Humières is gifted fifty *patacons* to safeguard Middelburg against the troubles of the Nine Years' War (Martens 2012a, 327)
- 1693-1696 Bailiff Jan Faignaert lives on the castle with his family, and together with father Benedictus Bels (Martens 1997, 185)
- after 1694 Father Benedictus Bels speaks to church warden Minnaert about the transport of stones for the restoration of the castle's chapel (Martens 2012a, 329)
- March 1695-
June 1697 Different troops are quartered in Middelburg (Martens 1997, 185)

- 1697,
November
18 Letter of Ferdinand Zoetaert to a certain Walrave, superintendent of countess Marie-Thérèse de Crévant d'Humières, saying the castle is in an even worse state than the mill (Martens 2012a, 328)
- 1698,
June 29 The people of Middelburg complain about the bad maintenance of the dykes (Martens 2012a, 328)
- 1698,
end of July Zoetaert reports to Walrave that he has found workers for the necessary reparations to the banks of the Lieve canal and that the clothing of the officers is worn (Martens 2012a, 328)
- 1699,
April 13 The bailiff of Middelburg complains to Walrave that wind and rain have free play on the castle (Martens 2012a, 329)
- 1699,
September
25 Zoetaert lets a certain Baesbanck know that the sergeant of the bailiff was caught selling a couple thousand bricks of the ruins of the castle to a miller. Zoetaert notes that this is not the first time and suspects the cooperation of the bailiff (Martens 2012a, 329)
- 1700,
October 4 Zoetaert writes a certain La Cousture that he wants to find out how the stones of the castle's towers were sold. He estimates the value of the materials on the castle at 1910 lb. gr. If one would consider the restoration of the part where the bailiff lives, that would cost 70 lb. gr. (Martens 2012a, 329)
- 1700,
November 4 A certain Hauweel (possibly Maarten Hauweel, bailiff from 1675 to 1684 or his son) can use the orchard and garden of the castle (Martens 2012a, 330)
- 1700,
December 5 The canons have squandered 3000 florins over the last years. Together with the shortages of the church-fabric, the administration of Boudewijn Bultynck leaves Middelburg with financial problems (Martens 2012a, 331)
- 1701,
July 24 Zoetaert notes that the reparation works to the castle can no longer be postponed. Especially the roof needs attention (Martens 2012a, 332)

- 1701,
August Reparation works on the castle (Martens 2012a, 332)
- 1701,
November Zoetaert reports that a moat, measuring fifty feet across, is dug from one side of the castle, around the city to the other side of the castle. Within the castle, preparations are made to receive a large group of people. The countess will probably be harmed by the lines on her lands. A few meadows have been indicated for the cutting of sods. Finally, a new draw bridge is constructed, probably to the west of the castle (Martens 2012a, 333)
- 1701 French troops take Middelburg (Martens 1997, 185)
- 1702,
before May 6 Survey by Senneton de Chermont to draw up his plans of Middelburg's fortifications (Martens 2012a, 334)
- 1702,
May 6 Dutch attack on Middelburg, under command of Menno van Coehoorn. Seven cannon shots and three smaller bombs were enough to take the castle, occupied by a captain of the Spinola regiment. This regiment was replaced by 150 Dutch troops (Martens 2012a, 336)
- 1702,
May 27 Date on the plan of Senneton de Chermont (Martens 2012a, 334)
- 1702,
June 5 Zoetaert reports that the Dutch still hold Middelburg, and continue to fortify it (Martens 2012a, 336)
- 1702,
June 11 Zoetaert reports that the castle is reconquered by the troops of the marquis of Bedmar, don Isodoro de la Cueva y Benavides. The castle was occupied by 400 Dutch soldiers and therefore heavily shelled with cannon shots, turning the castle into a ruin (Martens 2012a, 341)
- 1702,
June 14 Zoetaert reports that explosive charges are placed on the castle (Martens 2012a, 341)

- 1702,
June 21 Zoetaert reports that the castle is no longer repairable, all troops have left Middelburg (Martens 2012a, 341)
- 1702,
mid-July King's authorisation for the dismantlement and sale of the materials from Middelburg's castle (Martens 2012a, 341)
- 1702,
August 10 Zoetaert fears no buyers will show up for the sale of the castle's materials (Martens 2012a, 341)
- 1702 Middelburg receives statute of neutrality (Martens 2012a, 337)
- 1703,
July Middelburg is retaken by Dutch troops under command of general Sparre. He protects his position by strategic inundations and holds the castle until 1713 (Martens 1997, 185; 2012a, 342)
- 1713 The castle is restored (Martens 2012a, 343)
- 1716,
November 8 The count of Middelburg is received in his city with a *gedurig open hof* (continuous open court) and a grand banquet (Martens 2012a, 343)
- 1726 The castle is decayed to such an extent that the *collegiale camer* is no longer useable (Martens 2012a, 343)
- 1728,
May 26 Last deed signed on the castle (Martens 2012a, 343)

- from 1729
onward
- Materials of the castle are sold (Martens 2012a, 344)
- 1730s
- Nicolaas Lambrechtsen van Rithem notes c. 1790-1795 that the castle was still visible in the 1730s, with *een deel van 't groot gebouw aan de noordzijde omset of versterckt met drij steene bolwerken staande in de veste of water tegen aan tgebouw, alsmede nog een agtkanten tooren met een blauwe hartsteene wenteltrap daar in die ten deele ook vervallen was, voorts aande oostzijde stond nag eene steene poorle die overwelft was, waar op een kleene kamer was gebouwt aant zuydoosten van tnog staande groot gebouw dat in sig begreep een koakkeuken, een groote en kleyne kamer, een voorzale, een balcon met een steene steygenrap al twelke nag heeft gedient tot het jaar 1728 voor het wethuys van Middelburg, onder welk gebouw heeft geweest een groote verwelfde kelder en aan de zijdzijde daar aan een groote regenbak* (Martens 2012a, 344)
- 1752
- Surveyor d'Herbe mentions the castle as dilapidated (Martens 2012a, 325)
- shortly
before 1790
- Castle is mentioned in divorce proceedings (Martens 2012a, 344)
- 1867
- Castle only recognisable in the microtopography and by some parts of wall, barely above the surface (Martens 2012a, 344)

English summary

The archaeology of the Eighty Years' War (1568-1648) in Flanders bears great potential in contributing to the European debate on early modern transformations and in raising public awareness of archaeology as a whole. Thus far, early modern features were however mostly incidentally found on multi-period sites and not as a result from specific research questions. The need for a clear research framework has never been more relevant in view of the current commercial context of Flemish archaeology, in which the assessment, an evaluation of scientific potential, lies at the basis of heritage policy. The lack of knowledge on early modern archaeology makes that it will hardly be considered for further excavation and study. It is the aim of this thesis to illustrate the potential of archaeological research on this time period and of ceramics in particular.

Why ceramics? First of all, pottery is cheap and, as such, it is an accessible good for all strata in society. The central position of ceramics in the daily routine is crucial to this thesis, as it will be argued that the way in which pots are used is socially conditioned. An understanding of these conditions becomes possible as ceramics are breakable and hardly have any secondary value. After breakage, crockery is thus often discarded, ending up in archaeological excavations in a pristine state of preservation. Moreover, early modern ceramics are found in large numbers, opening up the possibility for statistical analysis and comparison within and between sites. It results in a large body of data underlying any further interpretation.

In its study of 16th- and 17th-century ceramics, the objectives of this thesis are twofold. First, an adequate, yet time-efficient methodology will be distilled from currently-existing methods, in turn allowing for a typochronology which correctly frames the pottery in time and space. As a second objective, the ceramic analysis will also explore the material attitudes of different social groups toward conflict, running as a leitmotiv throughout the early modern period. An answer to this question becomes possible through the detailed analysis of the attributes of which pots are composed (fabric, form, and decoration), since these are closely connected to the habitus of social groups. A change in any of the ceramic attributes may thus reflect how everyday routine was altered in order to deal with the troubles of war.

In search of the multiple responses to transformations in early modern times, a selection of four sites has been made, representing different social groups:

- (1) The castle of Middelburg (Maldegem)
- (2) The convent of the Poor Clares in Middelburg (Maldegem)
- (3) The Saint-Isabella fort in Ostend
- (4) The *Blauwhof* in Steendorp (Temse)

The castle of Middelburg evolved from an elite residence in the 15th century to a military bulwark from the late 16th century onward. The study of two garderobe chutes from the lower court of the castle provides a typonomological reference horizon for ceramics in that late 16th century. Moreover, it reinforced earlier interpretations on a soldier's material culture and their ways of dealing with the material culture of the 'other'. The study of the ceramics found in the adjacent moat subsequently allowed to evaluate it as an assemblage in itself. Although moats are often estimated to be only of a secondary value, the ceramic analysis provided new and original insights flowing from the scale of the assemblage. It was possible to suggest a functional interpretation of the castle site and certain forms and categories were found to testify to the active way in which material culture was used to construct and continue the lord's identity. Finally, the presence of food residues on several vessels inspired to make use of this generally-neglected source of information. The analysis provided new insights into the dietary and medicinal practices at the castle site and, moreover, illustrated how archaeologists should be wary to associate particular forms with a certain function.

In that same town of Middelburg, a Poor Clares convent was situated. The study of a ceramic assemblage permitted a glimpse into the early years of that convent (1519-1550). Whereas these Poor Clares are generally believed to live detached from the secular world, the ceramic material suggests the opposite. Through the use of early maiolica drinking bowls, the Poor Clares namely inscribed themselves in an existing monastic tradition. Moreover, despite the rule of Saint Clare, enforcing a life of poverty, the ceramics testified to a comfortable material situation, in which drinking games served as an important waste of time. Finally, the material culture of the Poor Clares was found to differ from that of other religious orders in their lack of scratch marks applied to ceramic vessels, in turn pointing to a very own way of structuring the mealtime.

The Saint-Isabella fort was one out of a chain of fortresses from which the Spanish army besieged the city of Ostend, from 1601 until 1604. The narrow date of the assemblage led to a better understanding of ceramics at the turn of the 17th century. Moreover, the spatial distribution of finds laid at the basis of a (re)interpretation of the functions associated with the excavated buildings. The undisputed military nature of the assemblage subsequently allowed to formulate some interesting insights into a soldier's identity, of which the use of small cooking pots and the choice for not using the enemies' products are arguably important components. Finally, the study of the assemblage

considered the presence of women and children, which were undoubtedly present within these military environments. It was here that we touched upon the limitations of ceramic analyses, with a mere two finds possibly attesting to the presence of civilians.

A final site was the *Blauwhof* residence of the Portuguese Ximenez family. An analysis of its ceramic collection (1595-1700) allowed a better insight into the lifestyle of migrants in the 17th-century Flemish countryside. The Ximenezes were found to possess of a hybrid identity, in which some Portuguese traditions were retained, while others were adapted to the new environment. Especially the Portuguese imports proved to be interesting. Comparison to 17th-century probate inventories revealed a paradox in the appreciation of Portuguese redwares and faience. While the former probably served in the imitation of court life, as an acknowledged object amongst the Antwerp elite, the latter functioned in a more intimate relationship between the people directly involved in purchasing, giving and receiving it as a marker of friendship, love and marriage.

When the data of the four sites above is combined, it becomes possible to advance our typo-chronological understanding of early modern ceramics in Flanders. It will be argued that both regional and chronological variation remains to be found within the increasing standardisation of ceramic vessels. Concerning geographical differences, a first general divide should be made between the Southern and Northern Netherlands. It is believed that Flanders's distinctive economic and political history results in a ceramic pattern that is not merely a reflection of the situation in the present-day Netherlands. Moreover, the study of categories, forms and vessel accessories indicated that further regional distinctions can be made within the county of Flanders. The current state of research allows to distinguish four areas with different ceramic traditions, being (1) the coastal zone, (2) inland Flanders, (3) the city of Antwerp and its hinterland, and (4) the city of Tongeren and its surroundings (Haspengouw). As a possible fifth area, the Waasland could be added as a transitional zone between the former three.

These observations form the basis for a discussion on the questions concerning the material responses to transformations in early modern times. Material culture was found to be closely linked to practice. The different habits of social groups made that these practices could be distinguished and subsequently identified, although context information through additional (art-)historical sources remains necessary to do so. A soldier's identity clearly speaks from the communal ways of eating, smoking and drinking. However, at the same time, soldiers cannot be regarded as a single entity. Pots did not mean the same thing to all soldiers, as seen for the different attitudes toward vessels bearing catholic meaning. However, ceramic analysis also proved to be a powerful method for the study of social groups that were not directly harmed by the troubles of war, such as the Poor Clares or the Ximenez family.

Despite the impact of war, no indications could be found for a limited access to the pottery market. This may well be the result of the durability of ceramics, which makes it possible to bridge periods of restricted access. However, the Eighty Years' War did

influence the choices made at a production level, but perhaps more important, the choices made by consumers. Material culture was the means *par excellence* to privately or publicly express allegiance to any of both sides of the conflict.

Nederlandstalige samenvatting

De archeologie van de Tachtigjarige Oorlog (1568-1648) in Vlaanderen heeft veel potentieel om bij te dragen tot het Europees debat over vroegmoderne transformaties en in het creëren van een publiek draagvlak voor archeologie. Tot dus ver worden vroegmoderne sporen echter meestal terloops gevonden op multiperiodesites en niet als het gevolg van specifieke onderzoeksvragen. De nood aan een duidelijk onderzoekskader was nooit eerder zo relevant, gezien de huidige commerciële context van de Vlaamse archeologie, waarin het assessment, een evaluatie van het wetenschappelijk potentieel, aan de basis ligt van erfgoedbeleid. Het gebrek aan kennis over vroegmoderne archeologie maakt dat deze nauwelijks in aanmerking komt voor verdere opgraving en studie. Het doel van deze thesis is om het potentieel aan te tonen van archeologisch onderzoek op deze specifieke periode en aardewerk in het bijzonder.

Waarom aardewerk? Als een goedkoop, alledaags goed is het toegankelijk voor alle lagen in de samenleving. De centrale positie van aardewerk in de dagelijkse routine is cruciaal, daar het beargumenteerd zal worden dat de manier waarop we potten gebruiken sociaal geconditioneerd is. Een beter begrip van deze condities wordt mogelijk aangezien aardewerk breekbaar is, met nauwelijks enige secundaire waarde. Na het breken wordt aardewerk dus vaak weggeworpen en duikt het vervolgens op tijdens archeologische opgravingen in een uitstekende staat van bewaring. Bovendien wordt vroegmodern aardewerk in grote getale gevonden, wat statistische analyse toelaat en vergelijking binnen en tussen sites.

De doelstelling van deze thesis tweeledig. Ten eerste wordt een adequate en tijdsefficiënte methodologie ontwikkeld, wat op zijn beurt een typonomie mogelijk maakt om het aardewerk in tijd en ruimte te situeren. Ten tweede, verkent de aardewerkanalyse ook de materiële attitudes van verschillende sociale groepen tot conflict. Een antwoord op deze vraag wordt mogelijk door de gedetailleerde analyse van de onderdelen waaruit potten zijn opgesteld (baksel, vorm en decoratie), aangezien deze nauw verbonden zijn met de habitus van sociale groepen. Een verandering in één van deze aardewerktributen kan dus reflecteren hoe de alledaagse routine werd gewijzigd om met de oorlogstroebelen om te gaan.

In een zoektocht naar de diverse antwoorden op vroegmoderne transformaties, werd een selectie van vier sites gemaakt die verschillende sociale groepen representeren:

- (1) Het kasteel van Middelburg (Maldegem)
- (2) Het Arme Klarenklooster in Middelburg (Maldegem)
- (3) Het Sint-Isabella fort in Oostende
- (4) Het *Blauwhof* in Steendorp (Temse)

Het kasteel van Middelburg evolueerde van een eliteresidentie in de 15^{de} eeuw tot een militair bolwerk vanaf de late 16^{de} eeuw. De studie van twee stortkokers van het neerhof van het kasteel vormen een typonchronologische referentiehORIZONT voor aardewerk in die late 16^{de} eeuw. Bovendien bevestigde het eerder interpretaties omtrent de materiële cultuur van soldaten en hun reactie op de materiële cultuur van de 'ander'. De studie van het aardewerk uit de kasteelgracht liet toe om deze als context te evalueren. Hoewel grachten vaak aanzien worden als slechts van secundaire waarde, bood de aardewerkstudie enkele nieuwe en originele inzichten die vloeiden uit de schaal van de context. Zo werd een functionele interpretatie van de kasteelsite mogelijk en getuigden bepaalde vormen en categorieën van de actieve wijze waarop materiële cultuur werd gebruikt om de identiteit van de heer te construeren en verder te zetten. Ten slotte bood de analyse van bewaarde residuen nieuwe inzichten in de voedsel- en medicinale praktijken op het kasteeldomein, en illustreerde dit bovendien hoe archeologen voorzichtig dienen te zijn in de koppeling van vorm en functie.

De studie van een aardewerkcontext uit het Middelburgse Arme Klarenklooster liet een blik toe in de vroege jaren van dat klooster (1519-1550). Waar Arme Klaren doorgaans verondersteld worden gescheiden te leven van de seculiere wereld, suggereerde het ceramisch materiaal het tegenovergestelde. Door het gebruik van vroege majolica drinknapjes, plaatsen de Arme Klaren zich binnen een reeds bestaande monastieke traditie. Bovendien, ondanks de regel van Sint Clara, die een leven van armoede oplegde, getuigt het aardewerk van een comfortabele materiële situatie, waarin drankspelletjes een belangrijk tijdverdrijf vormden. Ten slotte werd ook vastgesteld dat de materiële cultuur van de Arme Klaren verschilde van deze van andere religieuze orden in het gebrek aan eigendomsmerken op het aardewerk, wat op zijn beurt wijst op een andere structuur van het maaltijdgebeuren.

Het Sint-Isabellafort is één uit een keten aan forten waaruit het Spaanse leger Oostende belegerde tussen 1601 en 1604. De nauwe datering van deze site leidde tot een beter begrip van aardewerk op de eeuwwisseling. Bovendien lag de ruimtelijke verspreiding van de vondsten aan de basis van een (her)interpretatie van de functies geassocieerd met de opgegraven gebouwen. Het onbetwiste militaire karakter van de site liet vervolgens toe enkele interessante inzichten te verkrijgen in een militaire identiteit, waarin het gebruik van kleine kookpotten en de keuze om geen producten van de vijand te gebruiken twee belangrijke componenten waren. Ten slotte beschouwde deze aardewerkstudie ook de

aanwezigheid van vrouwen en kinderen, die zonder twijfel te vinden waren in deze militaire omgevingen. Hier werd echter geraakt aan de limieten van aardewerkanalyses, aangezien slechts twee vondsten mogelijk getuigden van een civiele aanwezigheid.

Een laatste site was de *Blauwhof* residentie van de Portugese Ximenez familie. Een analyse van de aardewerkcollectie (1595-1700) liet toe een beter inzicht te verkrijgen in de levensstijl van migranten op het 17^{de}-eeuwse Vlaamse platteland. Een hybride identiteit werd geobserveerd, waarin sommige Portugese tradities werden behouden, terwijl andere werden aangepast aan de nieuwe omgeving. Vooral de Portugese importen bleken van groot belang. Een vergelijking met 17^{de}-eeuwse boedelinventarissen bracht een paradox naar voren in de appreciatie van Portugese rood aardewerk en faïence. Daar waar het eerste wellicht diende in de imitatie van het hofleven, als een erkend object binnen de Antwerpse elite, functioneerde de tweede categorie in een intiemere relatie tussen zij die rechtstreeks betrokken waren in het aankopen, geven en ontvangen als een teken van vriendschap, liefde of huwelijk.

Wanneer de data van de vier bovenstaande sites wordt gecombineerd, is het mogelijk te komen tot een beter typonologisch begrip van vroegmodern aardewerk in Vlaanderen. Het wordt beargumenteerd dat regionale en chronologische variatie blijft bestaan binnen de toenemende standaardisatie van aardewerk. Wat geografische verschillen betreft, dient een eerste onderscheid gemaakt te worden tussen de Zuidelijke en Noordelijke Nederlanden. Vlaanderens eigen economische en politieke geschiedenis resulteert in een aardewerkpatroon dat niet louter een weerspiegeling is van de situatie in het huidige Nederland. Bovendien liet de studie van categorieën, vormen en onderdelen toe een verder regionaal onderscheid te maken binnen Vlaanderen. Vier verschillende aardewerkregio's werden vastgesteld, met name (1) de kustvlakte, (2) Binnen-Vlaanderen, (3) Antwerpen en haar hinterland en (4) Tongeren en Haspengouw bij uitbreiding. Het Waasland kan mogelijk worden toegevoegd als een vijfde gebied, een overgangszone tussen de eerste drie.

Deze observaties vormen de basis voor een discussie over de materiële antwoorden op vroegmoderne transformaties. Materiële cultuur blijkt inderdaad nauw verbonden te zijn met praktijk. De verschillende gewoonten van sociale groepen maken dat deze praktijken onderscheiden en vervolgens geïdentificeerd kunnen worden, hoewel contextinformatie uit (kunst)historische bronnen noodzakelijk blijft om dit te doen. Zo spreekt een militaire identiteit duidelijk uit de gemeenschappelijke wijze van eten, roken en drinken. Soldaten kunnen echter niet aanschouwd worden als één enkele entiteit. Een pot betekende niet hetzelfde voor iedere soldaat, zoals blijkt uit de verschillende houdingen ten opzichte van potten met een katholieke associatie. De analyse van aardewerk bleek ook een krachtige methode voor de studie van sociale groepen die niet direct werden benadeeld door de oorlogstroebelen, zoals de Arme Klaren of de Ximenez familie.

Ondanks de impact van oorlog, werden geen indicaties gevonden voor een beperkte toegang tot de aardewerkmarkt. Dit kan mogelijk het resultaat zijn van de duurzaamheid

van aardewerk, wat het mogelijk maakt periodes van beperkte toegang te overbruggen. De Tachtigjarige Oorlog beïnvloedde echter wel de keuzes die gemaakt werden op het productieniveau, en wellicht belangrijker, de keuzes gemaakt door consumenten. Materiële cultuur was het middel bij uitstek om privaat of publiekelijk trouw uit te drukken tot één van beide zijden van het conflict.