University of Groningen

Merovingian pottery at Wijnaldum in context

de Koning, Jan; Nieuwhof, Annet

Published in:
The Excavations at Wijnaldum

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2020

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

de Koning, J., & Nieuwhof, A. (2020). Merovingian pottery at Wijnaldum in context. In A. Nieuwhof (Ed.), *The Excavations at Wijnaldum : Volume 2: Handmade and Wheel-thrown Pottery of the first Millennium AD* (Vol. 2, pp. 147-158). (Groningen Archaeological Studies; Vol. 38). University of Groningen/Groningen Institute of Archaeology and Barkhuis Publishing.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

THE EXCAVATIONS AT WIJNALDUM

VOLUME 2:
HANDMADE AND WHEEL-THROWN POTTERY
OF THE FIRST MILLENNIUM AD

Annet Nieuwhof (editor)

GRONINGEN ARCHAEOLOGICAL STUDIES (GAS)

VOLUME 38

Editorial board

Prof.dr. P.A.J. Attema

Dr. C. Çakırlar

Prof.dr. R.T.J. Cappers

Prof.dr. P.D. Jordan

Prof.dr. D.C.M. Raemaekers

Prof.dr. S. Voutsaki

University of Groningen (UG)

Groningen Institute of Archaeology (GIA)

Poststraat 6 NL-9712 ER

Groningen the Netherlands

gia@rug.nl www.rug.nl

Website

www.barkhuis.nl/gas

Address of the publisher

Barkhuis Publishing

Kooiweg 38 9761 GL Eelde

info@barkhuis.nl www.barkhuis.nl

The Excavations at Wijnaldum

Volume 2:

Handmade and Wheel-thrown Pottery of the first Millennium AD

Annet Nieuwhof (editor)
Danny Gerrets
Angelique Kaspers
Jan de Koning
Gilles de Langen
Ernst Taayke

University of Groningen / Groningen Institute of Archaeology
& Barkhuis Publishing
Groningen
2020

Terpen en Wierden land

This publication is part of the project *Terpen- en Wierdenland, een verhaal in ontwikkeling* (The terp region. A developing story), in which participate:

university of
 groningen

groningen institute
 of archaeology

terp research group

Landschapsbeheer
 Groningen

Landschapsbeheer Friesland

The project *Terpen- en wierdenland* was financially supported by:

provincie
 groningen

provinsje fryslân
 provincie fryslân

gemeente
 Het Hogeland

Book & cover design: S. Boersma (UG/GIA)

Language editor: X. Bardet

Photos cover: J. de Koning; H. Faber Bulthuis, Groningen Institute of Archaeology, and Terpen- en Wierdenlandproject/Aerophoto Eelde.

ISBN 9789493194106

university of
 groningen

groningen institute
 of archaeology

Copyright © 2020 Individual authors.

All rights reserved. No part of this publication or the information contained herein may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, by photocopying, recording or otherwise, without prior permission in written form from the copyright holder. Although all care is taken to ensure the integrity and quality of this publication and the information herein, no responsibility is assumed by the publishers nor the author for any damage to property or persons as a result of operation or use of this publication and/or the information herein.

Table of contents

Preface.....	VII
1 Tracing farmers while digging for kings. The history and legacy of the excavations at Wijnaldum in Frisia, 1991-1993.....	1
<i>Gilles de Langen</i>	
1.1 Introduction.....	1
1.2 Top find as a direct cause.....	3
1.3 Theoretical prologue: 'The Amsterdam School'.....	8
1.4 Post-war terp research.....	10
1.5 Archaeological heritage protection.....	11
1.6 High expectations.....	12
1.7 Organisation and execution of the preliminary investigation (1990) and the excavation (1991-1993).....	15
1.8 First results.....	18
1.9 The King of Wijnaldum: first reception.....	19
1.10 Immediate effects of the Wijnaldum project.....	22
1.11 Reports on Frisia in Roman and Medieval times Volume 1 (1999).....	23
1.12 The significance of Wijnaldum for terp research, 2000-2020.....	28
1.13 Epilogue.....	32
2 Introduction to the pottery research of Wijnaldum-Tjitsma.....	41
<i>Jan de Koning and Annet Nieuwhof</i>	
2.1 Pottery research.....	41
2.2 Method.....	41
2.3 The pottery assemblage.....	42
2.4 Dates.....	45
2.5 To conclude.....	45
3 Handmade pottery of the Roman Period.....	47
<i>Ernst Taayke</i>	
3.1 Introduction.....	47
3.2 G-type pottery.....	48
3.3 V-type pottery.....	56
3.4 K-type pottery.....	58
3.5 S-type pottery.....	62
3.6 Atypical pottery.....	63
3.7 Miscellaneous/ceramic artefacts.....	64
3.8 Concluding remarks on the Roman Period.....	66
4 Handmade pottery of the Migration Period and the Merovingian Period.....	69
<i>Ernst Taayke</i>	
4.1 Between Gw8 and A1: an "empty" century and its pottery.....	69
4.2 The development of decoration.....	69
4.3 The development of shape.....	70
4.4 Pre-Anglo-Saxon pottery in the salt-marsh area.....	71
4.5 The Migration Period at Wijnaldum.....	75
4.6 The Merovingian Period at Wijnaldum.....	85
4.7 Ceramic artefacts.....	89
4.8 Special finds and assemblages.....	89
4.9 Associations and conclusion.....	93

5	Wheel-thrown pottery of the Merovingian and Carolingian periods at Wijnaldum	99
	<i>Jan de Koning, Danny Gerrets and Annet Nieuwhof</i>	
5.1	Introduction	99
5.2	Merovingian coarse ware	100
5.3	Merovingian fine ware: biconical pots (<i>Knickwandtöpfe</i>)	128
5.4	Wheel-thrown pottery from the Carolingian period	133
5.5	10th- century and late-medieval pottery	141
5.6	Post-medieval pottery	143
5.7	Discussion and conclusion	143
6	Merovingian pottery at Wijnaldum in context	147
	<i>Jan de Koning and Annet Nieuwhof</i>	
6.1	Introduction	147
6.2	A remarkable deposition	147
6.3	Feature 1233, a ditch or a redeposited part of the terp?	148
6.4	Features from trench 8	153
6.5	The start of the importation of Merovingian pottery	155
6.6	Conclusions	156
7	Handmade pottery of the Merovingian and Carolingian periods at Wijnaldum	159
	<i>Jan de Koning, Annet Nieuwhof and Danny Gerrets</i>	
7.1	Classification and method	159
7.2	Fabrics	161
7.3	Types	162
7.4	Further analysis	174
7.5	Steuer-ing the pots	182
7.6	Associations and production	188
7.7	Conclusion	189
8	Wijnaldum-Tjitsma revisited. Testing the potential value of field-surveying terp sites	193
	<i>Angelique Kaspers</i>	
8.1	Introduction	193
8.2	Research history	200
8.3	Pottery research and methods	212
8.4	Results	213
8.5	Discussion	220
8.6	Conclusion: the value of field-surveying terp sites	238
9	Digging for kings, finding pottery. Wijnaldum in the first millennium	241
	<i>Annet Nieuwhof, Danny Gerrets, Angelique Kaspers, Jan de Koning, Gilles de Langen and Ernst Taayke</i>	
9.1	The scene	241
9.2	Pottery and the history of habitation	244
9.3	Handmade and wheel-thrown pottery	250
9.4	Digging for kings....	252
9.5	Conclusion	258
	List of contributors	263

Preface

Wijnaldum is nowadays an unassuming rural village in the north of the province of Friesland, no more than a small dot on the map of the Netherlands. But during the Early Middle Ages, this was a lively political centre, a kingdom, with intensive contacts with other kingdoms along the North Sea coasts, and with the Frankish realm to the south.

The search for the king that resided at Wijnaldum was the major goal of the excavations that were carried out at the terp Wijnaldum-Tjitsma between 1991 and 1993. These excavations yielded a wealth of information, although tangible remains of the king or a royal residence were not found. The first results and an overview of the habitation phases were published in 1999: Volume 1 of *The Excavations at Wijnaldum*. However, major material categories such as animal bones, metal objects and pottery were left waiting until a next volume. As time went on, researchers became occupied with other work, and Wijnaldum faded into the background.

In 2014, a grant from the Dutch *Waddenfonds*, in the context of the project *Terpen- en Wierdenland. Een verhaal in ontwikkeling* (The terp region. A developing story) made it possible to resume the analysis and publication of the results of the excavations at Wijnaldum, and publish a second volume on the ceramic assemblage. Resuming the analysis of the pottery was by no means easy. The digital archive had become partly inaccessible, and the first drafts of texts, which seemed of topical interest at the time, had lost their relevance due to advancing insights, and needed updates and additions. As one of the authors, Ernst Taayke, wrote to me: The Wijnaldum project is like a pot that has fallen to pieces; the broken pot is being reconstructed as completely as possible now, after 25 years, although we do not have all the shards anymore.

Despite some missing shards, we did succeed in completing this volume. It not only includes major chapters on the pottery of the Roman Period and the Early Middle Ages (Chapters 2-7), but also an extensive overview of the research carried out in Wijnaldum (Chapter 1), an illuminating account of new survey research at Wijnaldum, which provides additional information on the habitation history (Chapter 8), and a synthesis, which presents an overview of the habitation history at Wijnaldum, with special attention to the search for the king on the basis of finds of precious metals and of the pottery assemblage (Chapter 9).

Several organisations financed and successfully cooperated in the Waddenfonds project *Terpen- en Wierdenland. Een verhaal in ontwikkeling*: the Terp Research group of the Groningen Institute of Archaeology (University of Groningen), the Province of Fryslân (Friesland), the Province of Groningen, Landschapsbeheer Groningen, Landschapsbeheer Friesland, the Museum Wierdenland at Ezinge, and the municipalities of De Marne and Eemsmond (now merged into the municipality of Het Hogeland), and Delfzijl. The present book was financed by this project. We thank these organisations for their generosity.

We would also like to thank all those who allowed us to use illustrations: the Fries Museum at Leeuwarden, Johan Nicolay, Saartje de Bruijn, Frans Andringa, Beeldredactie Leeuwarder Courant, Frans de Vries (Toonbeeld), the Northern Archaeological Depot at Nuis (notably Jelle Schokker for all kinds of help, and Henk Faber Bulthuis who made photos), Peter Vos and Sieb de Vries (Deltares/TNO), and Mirjam Los-Weijns and Siebe Boersma of the Groningen Institute of Archaeology (GIA, University of Groningen), who made and edited many object drawings. Siebe Boersma designed the layout of the book. Johan Nicolay read an earlier draft of the synthesis and gave valuable comments. Xandra Bardet not only read and corrected the English texts, but also pointed out inconsistencies. We owe them all our sincere gratitude.

On behalf of the authors,
Annet Nieuwhof
Editor

6. Merovingian pottery at Wijnaldum in context

Jan de Koning and Annet Nieuwhof

6.1 Introduction

This chapter discusses a number of contexts with large amounts of pottery from the Merovingian period. This period saw the use and production of pottery at Wijnaldum undergoing a remarkable development. While household pottery formerly was homemade for a household's own use, imported pottery from the Rhineland becomes the most numerous in this period, to decline again towards the Carolingian period. In habitation Period IV¹ (AD 550-650) a striking 63.7% of the pottery assemblage at Wijnaldum consists of wheel-thrown Merovingian coarse ware.² At the same time, handmade pottery was still being produced, but the previous, beautifully finished, decorated and undecorated pottery of the 5th century (types A1 and A2 described by Taayke in Chapter 4) is replaced by much coarser handmade ware: the types A3 and A4, which come in two variants: grass- or chaff-tempered ware (Tritsum ware), and grit-tempered ware (Hessens-Schortens ware). Not only do these types tend to be less well-finished than before, but also their shapes become rather squat, actually not unlike the shapes of the Merovingian imported pots. From then on, these ovoid, barrel-, or bucket-shaped pots evolve into one of the most notable export products of the coastal Frisians, the completely globular pot or *Kugeltopf*.³

In habitation period V (AD 650-750), the percentage of imported pottery sees a dramatic decline, dropping to just 1.2% of the ceramic assemblage. The reasons behind the decline are not entirely clear. Period IV coincides with the heyday of Wijnaldum and its surroundings as the centre of a regional kingdom that probably encompassed the present provinces of Friesland and Groningen.⁴ The import of Merovingian pottery decreased well before Friesland was annexed by the Franks in 734; still, imported glass vessels from this period at Wijnaldum show that the exchange of goods with the Frankish world had not come to a standstill, despite possibly less-than-friendly relations during the period of the Frankish conquest.⁵

Period IV is also the 'Golden Age' of the northern Netherlands, with a large number of gold objects.⁶ The famous Wijnaldum brooch is the most striking example of this gold horizon (see also Chapter 1). The peak in the importation of Frankish pottery coincides with this Golden Age. Just like gold objects, imported pottery seems to concentrate at Wijnaldum and in northern Westergo, and from there seems to have been distributed in stages from this centre to the periphery of this regional kingdom. This explains the concentrations of imported pottery and gold in northern Westergo, and the much occurrences of gold and of Merovingian coarse and fine wares in settlements further from it; apparently these settlements depended on the centre in northern Westergo for their imported goods.⁷

The purpose of this chapter is threefold. First, it aims at underpinning the chronology of the imported pottery presented and discussed in the previous chapter. Secondly, it investigates the proportional amounts of imported and locally made pottery. And thirdly, it discusses the start of the importation of Merovingian pottery. The contexts that were selected also give us some insight into the depositional practices and processes in the Merovingian period at Wijnaldum. They are presented in chronological order.

6.2 A remarkable deposition

One of the most striking pottery deposits at Wijnaldum was a concentration of sherds of wheel-thrown pottery (find no. 7572). Fragments from at least two pots of type MWIE4 and fifteen of type MWIC1 (MWIC1 without a ridge on the shoulder) were found together with some wall sherds of the same ware and a base fragment of an undecorated Migration-period handmade pot (type A1).⁸ It is remarkable that all these pots have the same colour and shape (Figure 6.1; see also Figures 5.4 and 5.7). Although the sherds are all very similar, there are only a few fitting wall and rim sherds. Minor differences in profile and diameter show that these fragments belong to seventeen different pots. Apart from being broken, the sherds show no signs of use or wear; they seem to come from new vessels.

The number of seventeen similar pots shows that this kind of pottery probably came into the settlement in larger

1 See for an overview of habitation phases Figure 9.3.

2 Gerrets & De Koning 1999, 97. The percentage refers to the number of fragments.

3 See Chapter 7.

4 Nicolay 2010, 127; 2014, 350-359.

5 Sablerolles 1999, 238-140; Nieuwhof & Nicolay 2018, 77.

6 Nicolay 2006; Nieuwhof & Nicolay 2018, 71.

7 Knol 1993, 191; Nicolay 2014, Chapter 4; Thasing & Nieuwhof 2014, 141-143.

8 Find no. 7572.

Fig. 6.1 Seventeen sherds of type MWIC1 and MWIE4, find no. 7572. Photo J. Schokker, NAD Nuis.

quantities at a time, as merchandise, and not just one by one, through personal exchange. Type MWIC1, an Alzey 32/33 variant, can be considered one of the earliest Frankish imports, dated 500-600. The assemblage of sherds of seventeen unused pots must have been a valuable deposit.

Chronology

No radiocarbon dates for this context are available. On the basis of location and stratigraphy, this finds assemblage was dated to Period IIIB, between AD 475 and 550. That is in line with the assumed pottery dates. A 5th-century date for type Alzey 32/33, which is similar to type MWIC1, is quite likely. Type MWIE4 is fairly similar to MWIC1, but lacks the ridge on the shoulder; it probably dates from the 6th century (see Chapter 5.2 for the MWI dates). Overall, a date of ca AD 500 is plausible.

6.3 Feature 1233, a ditch or a redeposited part of the terp?

During the campaign of 1992 a large feature was uncovered,⁹ which was filled with burnt soil and a lot of

settlement debris, pieces of bone, pottery, and metal. The feature was initially identified as (part of) a ditch (Figure 6.2). This 'ditch' was situated at the foot of a slope, but it did not surround the entire terp settlement. The fill of the ditch was interpreted as a dump of settlement debris, after a fire by which the settlement was burnt down at some point during the 6th or 7th century. Whether this was a ditch is far from certain; the feature may actually be a dump of settlement debris directly beside one or several coalesced terp platforms (Figure 6.3).

Two bone samples from this feature were radiocarbon-dated.¹⁰ Both dates are alike: their two-sigma ranges are between AD 415 and 555 and 420 and 565, which both fall into Period III (425-550).¹¹ The 'ditch', while open, was assumed to belong to Period IV, dated between 550 and 650,¹² but a considerable part of the debris clearly belongs to Period III; the large percentage of Merovingian

⁹ Feature 1233, Trench 6, levels 5-8.

¹⁰ Gerrets & De Koning 1999, 97.

¹¹ See also Table 2.3; GrN 21396, 1570 ± 30 BP; GrN 21400, 1560 ± 30 BP; calibrated with OxCal version 4.3.2.

¹² Gerrets & De Koning 1999, 86.

Fig. 6.2 The excavated area with features from period IIIB, 475-550. Ha: hearth (see also Figure 6.3); f: feature. After Gerrets & De Koning 1999, fig. 9.

wheel-thrown ware (see Table 6.1) indicates that it belongs to the second part of Period III, IIIB (475-550).¹³

From the fill of this feature, 1,632 fragments of pottery were collected, weighing 17,402 g (Table 6.1). Apart from a very small amount of indigenous terp ware from the Roman period and only three fragments of pottery that

were dated to the Carolingian period (no. 6817: two small sherds of thin-walled Badorf and Walberberg ware in fabrics cw2 and 4), all fragments seem to date to the 5th and 6th centuries.

As we can see in Table 6.1, almost all fragments belong to Merovingian imported pottery (86.5/87.1%), followed by Migration-period handmade (A1/A2 or Anglo-Saxon style) pots (9.3/9.9%). Among the Migration-period handmade pottery, only one fragment, no. 6704.a (see

¹³ Gerrets & De Koning 1999, 82, 84.

Fig. 6.3 The excavated area with features from period IV, AD 550-650. Feature 1233: a dump of settlement debris, documented at Levels 5, 6, 7 and 8. Ha: hearth; W: well; f: feature. After Gerrets & De Koning 1999, fig. 11.

Figure 4.6) is decorated (a wall fragment weighing 3g). Two undecorated grit-tempered rim sherds belong to the 4th/5th-century type A1. Anglo-Saxon-style pottery (A2) is mainly dated to the 5th century. No more than eight sherds belong to the group of Merovingian handmade pottery (MH): Taayke's type A3/A4 (see Chapter 4). The small number of MH sherds indicates that this type of pottery only played a minor role in this period; imported Frankish

pottery was clearly dominant, in number of sherds as well as Minimum Number of Individuals (MNI; see Table 6.2).

The finds from this feature are numbered 5534, 6208, 6704, 6817, 7448, 7451 and 11694 (for illustrations see Chapters 4, 5 and 7). Looking more closely at the pottery in this context (Table 6.2), we can distinguish at least 97 individual pots, which belong to different kinds of pottery.

This feature contained 35% of the total number of fragments of wheel-thrown pottery at Wijnaldum, and 27.3%

Table 6.1 Pottery from feature 1233.

Pottery group	Number of sherds	%	Weight in g	%	Average sherd weight in g
Handmade Terp ware of the Roman period	33	2	288	1.7	8.7
Migration-period handmade pottery (A1/A2)	152	9.3	1,724	9.9	11.3
Merovingian handmade (MH)	31	1.9	215	1.2	6.9
Merovingian wheel-thrown (MW)	1,411	86.5	15,165	87.1	10.7
Carolingian handmade (CH)	1	0.1	3	0.02	3
Carolingian wheel-thrown (CW)	2	0.1	3	0.02	1.5
Indeterminable	1	0.1	1	0.01	1
Total	1,632	100	17,402	100	10.7

Table 6.2 Distribution of pottery from feature 1233. The Minimum Number of Individuals (MNI) is based on diagnostic rim sherds.

Pottery group	MNI	%
Handmade Terp ware of the Roman period	1	1.0
Migration-period handmade pottery (A1/A2)	5	5.0
Merovingian handmade (MH)	8	7.9
Merovingian wheel-thrown (MW)	86	85.1
Carolingian handmade (CH)	1	1.0
Total	101	100

of the total weight. In terms of MNI, at least 85.1% of the pottery ($n = 86$) from feature 1233 is Merovingian wheel-thrown, probably imported from the German Rhineland. Which makes this feature an interesting test case for the typology described in Chapter 5.

Table 6.3 shows the proportion of the types of Merovingian wheel-thrown pottery that occur in this assemblage. Most types are represented. Only the relatively late type MWIB is missing. If we zoom in on the MWI types and compare the proportions in this assemblage with the overall proportion of these types at Wijnaldum (see last column of Table 5.1), it becomes clear that, insignificant differences aside, in particular type MWID, which is the most common type in this assemblage, occurs in considerably higher percentages in this context: almost threefold (28.6%, compared with 10.6% in general). Types MWIB, -C, -F and -G occur less or were not found at all. The differences can partly be attributed to the date of this feature (before the introduction of later types such as MWIB), and partly to other factors. In the previous deposit, for instance, sherds of one specific type, MWIC1/E4, had been selected, perhaps because of their colour or simply because a fresh shipment of this type had just arrived. Anyway, the composition of such special deposits will influence the proportions of types in other assemblages.

If we concentrate on dates, it is quite clear that most pottery belongs to the first chronological group, which mainly belongs to the 5th and 6th centuries, in accordance with the expected date of the major part of the feature. At least 41 pots, 47.7% of the total number, belong to this group. Another 37 pots, 43.0% of the total, belong to the first or second group, so dating into the 7th century. A much smaller part belongs to the second group, dated to the 7th century: only two pots, 2.3%. That leaves us with four specimens from the third group (AD 675-750), 4.7% of

the total number of pots from this feature. These are dated later than Period IV, hence with a starting date after 650.

The common denominator of the majority of the finds in this assemblage, however, is the 6th and the first half of the 7th century. Periods IIIB, to which early Migration-period handmade sherds and two radiocarbon dates belong, and IV, in which this feature was apparently backfilled with settlement debris, partly or entirely fall within that period.

There is some older material, which is not surprising if we take into account the way this feature was backfilled, and also some younger material. The latter may come from the top of the fill, as intrusions from higher layers, or result from mistakes made during the excavation.

Discussion

If feature 1233 contains debris of at least two habitation phases (Periods IIIB and IV), covering the timespan between AD 425 and 650, some conclusions can be drawn. It shows that there were virtually no finds or features from the Roman period on the surface during this period on this part of the terp. Moreover, only a small part of the pottery from this feature has a starting date in the 5th century (types MWIA2, -3 and -6, and MWIC). As said, Migration-period handmade pottery is mainly dated to the 5th century, but it is represented by a minimum number of pots of only five. A late 5th-century date for Merovingian handmade types A3/A4 is possible but not very likely. The most probable starting date of this ware is around 500.¹⁴ The majority of the finds are thus dated to the 6th or the first half of the 7th century.

This suggests that the feature was already open during Period III (see also Figure 9.7), but only some contemporary material ended up in this 'ditch' or, if it was not a ditch, beside the house platform. The burnt rubbish and debris, probably from a complete Period-IV household, was dumped here in a short period of time during the reorganisation of the settlement around 650, the end of Period IV. As said in the introduction, during this period almost no local handmade pots were used. Instead, 'Frankish' pottery was imported in large quantities.

The few A3/A4 or Tritsum- and Hessens-Schortens type pots¹⁵ show that during this period, some potters in or near the settlement kept the art of pottery by hand alive, though in a new style that replaced the earlier

¹⁴ See Chapter 4.

¹⁵ See Chapter 4.

Table 6.3 Distribution of wheel-thrown Merovingian pottery from feature 1233, based on the Minimum Number of Individuals (MNI). For dates and chronological groups, see Chapter 5.2. The data included in the percentages of the different types in the total number of MWI finds at Wijndaldum (cf. % of total) is derived from Table 5.1.

Pottery group	Type	Subtype	MNI	% MWI	From	To	Chronology	Cf. % of total
MWI	A	1	1		250	325	Late Roman Period	
MWI	A	2	1		450	600	First group	
MWI	A	3	1		475	600	First group	
MWI	A	4	3		550	650	First/second group	
MWI	A	6	2		475	650	First group	
MWIA total			8	12.7				9.8
MWIB total			0	0			Third group	5.2
MWIC total			2	3.2	450	600	First group	12.9
MWI	D	1	4		500	600	First group	
MWI	D	2	5		500	625	First group	
MWI	D	3	9		500	650	First/second group	
MWID total			18	28.6				10.6
MWI	E	1	2		670	750	Third group	
MWI	E	2	8		500	700	First/second group	
MWI	E	4	3		500	600	First group	
MWIE total			13	20.6				19.3
MWI	F	1	1		500	650	First/second group	
MWI	F	2	1		600	700	Second group	
MWI	F	3	1		500	700	First/second group	
MWIF total			3	4.8				11.1
MWI	G	1	2		550	700	First/second group	
MWIG total			2	3.2				7.1
MWI	H	1	3		500	600	First group	
MWI	H	2	5		500	600	First group	
MWIH total			8	12.7				12.1
MWI	J	1	1		675	725	Third group	
MWI	J	2	1		675	725	Third group	
MWI	J	3	1		600	725	Second group	
MWI	J	4	1		525	725	First/second group	
MWI	J	5	3		525	725	First/second group	
MWI	J	6	2		525	725	First/second group	
MWIJ total			9	14.3				11.9
MWI total			63	100				(n = 388) 100
MWII- small	B		1		600	700	Second group	
MWII	E		1		500	700	First/second group	
MWII	H		1		500	700	First/second group	
MWII	x		1					
MWII total			4					
MWIII	A		6		440	620	First group	
MWIII	C		3		450	525	First group	
MWIII total			9					
MWIV	B		1		500	625	First group	
MWIV	D		1		450	525	First group	
MWIV total			2					
Kwt	3	AB	3		510	590	First group	
Kwt	5	A	1		565	620	First/second group	
Kwt	5	GH	4		565	620	First/second group	
MW-biconical			8					
Total			86					

Migration-period handmade ware. In this light it is especially striking that one of the hearths described in Chapter 4.8 (Hearth 15/feature 797, see Figures 4.13-4.16) and that belongs to the end of Period IIIB or to Period IV,¹⁶ had a sherd plaster that consisted entirely of handmade, A1 and A3 pottery. The completeness of the reconstructed pots

suggests that they may have been deliberately broken to construct this hearth. Where these selected because they were less valuable, in a society that preferred Frankish imported pottery for their everyday household use? Or were they considered more suitable for functional reasons?

When the import of Rhenish pottery dramatically decreased in Period V (from 63.7% of the total amount of pottery in Period IV to 1.2% in Period V), the local handmade pottery again became the most frequently

¹⁶ It was radiocarbon-dated to AD 535-655 (see Table 2.3).

Table 6.4 Distribution of different types of pottery from the construction pit of Well 9 (feature 609).

Pottery group	Number of sherds	%	Weight in g	%	Average sherd weight in g
Handmade Terp ware from the Roman period	16	29.6	176	35.8	11.0
Migration-period handmade pottery (A1/A2)	6	11.1	39	7.9	6.5
Merovingian wheel-thrown (MW)	31	57.4	276	56.1	8.9
Merovingian handmade (MH)	1	1.9	1	0.2	1.0
Total	54	100	492	100	9.1

Table 6.5 Distribution of different types of pottery from the shaft of Well 9 (feature 608).

Pottery group	Number of sherds	%	Weight in g	%	Average sherd weight in g
Handmade Terp ware from the Roman period	12	8.4	176	9.2	14.7
Late-Roman pottery (<i>Terra nigra</i> -like situlae)	3	2.1	30	1.6	10.0
Migration-period handmade pottery (A1/A2)	47	32.9	339	17.6	7.2
Merovingian wheel-thrown (MW)	70	49.0	1,340	69.6	19.1
Merovingian handmade (MH)	1	0.7	10	0.5	10.0
Carolingian handmade (CH)	9	6.3	28	1.5	3.1
Indeterminable	1	0.7	1	0.1	1.0
Total	143	100	1,924	100	13.5

used. The shapes of the Tritsum- and Hessens-Schortens-type pots were from the earlier A1 type, but, as said, also echo the shapes of the Merovingian coarse ware, not only at Wijnaldum, but throughout the northern Netherlands. The barrel- and bucket-shaped pots of Merovingian coarse ware seem to have inspired local potters of handmade ware. However, the undecorated handmade ware of the Migration Period, with wide bases and simple rim shapes (type A1), also foreboded the coarse Merovingian handmade pottery. Migration-period handmade Type A1 and Merovingian coarse ware together seem to have produced Hessens-Schortens and Tritsum-type offspring, in which the influence of the parents is difficult to disentangle.

6.4 Features from trench 8

Two features from trench 8, numbered 567 and 625, were interpreted as waste layers, connected with metalworking and bead making in Period IV.¹⁷ A well was excavated nearby (Figure 6.3, W9), the only excavated well to be dated to Period IV. During this phase, Wijnaldum and its surroundings were a political centre, and pots, which had earlier been made by hand for a household's own use, were now largely replaced by imported pottery from the Rhineland.

Well 9 (Feature 608/609)

The largest pottery assemblage comes from Well 9. It contains 143 potsherds, weighing nearly two kilograms (1,924 g). The construction pit of the well (feature 609) contains 54 potsherds, weighing 492 g. This potentially offers an interesting insight into the depositional processes due to the stratigraphical difference between the time of construction of the well and the end of its lifetime, when it was backfilled with waste and soil from the surface. In tables 6.4 and 6.5, the distribution of pottery types across the contexts is shown.

There are clear differences between the pottery assemblages in the construction pit of the well and in its shaft. As expected, the proportion of older terp pottery in particular is considerably larger in the construction pit (Table 6.4). These sherds must have become buried while the pit was dug. The pottery that ended up in the fill of the well mostly consists of Migration-period handmade and Merovingian wheel-thrown sherds, with some younger sherds. As was the case in feature 1233, the younger material may come from the top of the fill or be intrusive from higher layers; or it became mixed with the assemblage by mistakes during the excavation.

Diagnostic rim sherds from the shaft of the well belong to one late-Roman *terra nigra*-like situla, five Merovingian wheel-thrown pots (types MWIC, MWIH2, MWIE3, MWIE4, MWIF),¹⁸ a handmade ovoid pot, and three undecorated Migration-period handmade sherds (A1) (Table 6.6). Two decorated A2 wall sherds from different pots¹⁹ could be added to the MNI, bringing the total MNI to 12.

Table 6.5 shows that the AS pottery consists of relatively small fragments; this is not only because this ware is more thin-walled than the imported wares and less resistant to breaking, but also because the AS sherds were subject to trampling for longer, since they belong to an earlier period: the well was attributed to Period IV (550–650), while the AS style saw its heyday in the 5th century.

There are several ways in which sherds might end up in the fill of the well. Small sherds may have been lying on the surface with other waste, where they were trampled and spread. The well must have gradually filled up with soil and waste from near the well, containing recent and older sherds. No larger and fitting sherds that might be associated with deliberate deposition were found in the fill of this well, but the average weight of the sherds in the fill is greater than in the construction pit, especially of MW sherds. Which suggests that fresh waste contributed to the fill.

¹⁷ Gerrets & De Koning 1999, 117–118.

¹⁸ E.g. Figure 5.7, no. 7261; Figure 5.10, no. 3055.

¹⁹ Find nos. 2809 and 2817.

Table 6.6 Distribution of pottery from feature 608. The Minimum Number of Individuals (MNI) is based on diagnostic rim sherds and, in brackets, wall sherds.

Pottery group	MNI	%
Roman pottery (<i>terra nigra</i> -like situla)	1	10
Migration-period handmade pottery (A1/A2)	3(5)	30
Merovingian handmade (MH)	1	10
Merovingian wheel-thrown (MW)	5	50
Total	10	100

Table 6.7 Distribution of different types of pottery from feature 625.

Pottery group	Number of sherds	%	Weight in g	%	Average sherd weight in g
Handmade Terp ware from the Roman period	58	19.1	322	1.8	5.6
Roman pottery	1	0.3	10	0.4	10.0
Migration-period handmade pottery (A1/A2)	83	27.4	359	15.4	4.3
Merovingian wheel-thrown (MW)	145	47.9	1,560	66.8	10.8
Merovingian handmade (MH)	8	2.6	34	1.5	4.3
Carolingian handmade (CH)	2	0.7	30	1.3	15.0
Carolingian wheel-thrown (CW)	3	1	11	0.5	3.7
Post-medieval (PM)	1	0.3	7	0.3	7.0
Indeterminable	3	1	1	0	0.3
Total	303	100	2,334	100	7.7

The high percentage of Merovingian wheel-thrown sherds agrees with the attribution of the well to Period IV. In this period, as was demonstrated by feature 1233, most of the pottery was imported wheel-thrown ware from the Frankish Rhineland.

Feature 625

Feature 625, together with feature 567, is interpreted as a surface-waste layer. These partly overlapping layers were excavated and sieved separately, but were probably contemporaneous or even part of the same layer. Feature 625 contained 303 potsherds weighing 2,334 g. The fragments are from different periods, but mainly consist of MW pottery (47.9/66.8%) and AS (27.4/15.5%), with some older pottery (19.1/13.8%). The old material undoubtedly is the result of digging pits, wells and ditches into deeper layers, by which older sherds became mixed with younger finds. A small amount of Carolingian and post-medieval pottery probably results from the difficulty of separating this layer from higher and younger ones. Superimposed layers are rarely separated by sterile layers without finds.

The minimum number of individual pots is larger than in Well 9 (Table 6.8). Feature 625 has much in common with feature 1233, with some differences that may be chronologically significant (Table 6.7-6.9). A larger amount of older pottery is present here. Fragments of the indigenous terp pottery of the Roman period were clearly

Table 6.8 Distribution of pottery from feature 625. The Minimum Number of Individuals (MNI) is based on diagnostic rim sherds.

Pottery group	MNI	%
Roman pottery (<i>terra nigra</i> -like situla)	1	5
Merovingian handmade (MH)	2	10
Merovingian wheel-thrown (MW)	17	85
Total	20	100

Table 6.9 Distribution of MW pottery types from feature 625.

Pottery group	Type	Subtype	MNI	%	From	To	Chronology
MWI	A	5	3	17.6	600	700	Second group
MWI	D	1	4	24.0	500	600	First group
MWI	E	1	1	5.9	670	750	Third group
MWI	E	2b	3	17.6	500	550	First group
MWI	E	2c	1	5.9	525	600	First group
MWI	E	3	1	5.9	525	600	First group
MWI	E	4	1	5.9	500	550	First group
MWI	G	1	1	5.9	550	700	First/second group
Kwt	3	A	2	11.8	510	590	First group
Total			17	100			

present on the surface. These are for the most part smaller fragments. AS-style pottery occurs in larger numbers and weight, and may be partly contemporaneous with the MW pottery. The AS fragments may partly belong to late-AS-style pottery, which is dated between ca 450 and the end of the 6th century,²⁰ just like most of the MW pottery. The percentage of MH pots (10%) is larger than in feature 1233, but because of the small number of diagnostic sherds, this percentage is not statistically significant.

If we consider the different MW subtypes (Table 6.9), the first chronological group is clearly dominant, which suggests an early date for this layer. The share of fine-ware biconical pots is similar to that in feature 1233. There are three type-MWIA5 pots and, again as in feature 1233, one type-MWIE1 pot, which clearly belong to the third chronological group; this calls into question the late dating especially for type MWIE1, which is thought to have been produced from around AD 670. A starting date within Period IV (550-650) is likely, at least if MWIE1 is not an intrusion from a higher layer. The assumed date for MWIA5 falls in the second half of Period IV, but since the feature as a whole may date from the first half, in the 6th century, type MWIA5 might in fact have been produced somewhat earlier than assumed, before 600.

Feature 567

The reliability of the proportion of pottery groups and types identified in feature 625 can be tested with the

²⁰ Krol *et al.* 2020.

Table 6.10 Distribution of different types of pottery from feature 567.

Pottery group	Number of sherds	%	Weight in g	%	Average sherd weight in g
Handmade Terp ware from the Roman period	12	17.9	30	3.5	2.5
Migration-period handmade pottery (A1/A2)	3	4.4	18	2.1	6.0
Merovingian wheel-thrown (MW)	40	59.7	759	88.6	19.0
Merovingian handmade (MH)	8	11.9	28	3.3	3.5
Carolingian handmade (CH)	4	6.0	22	2.6	5.5
Total	67	100	857	100	12.8

Table 6.11 Distribution of pottery from feature 567. The Minimum Number of Individuals (MNI) is based on diagnostic rim sherds.

Pottery group	MNI	%
Merovingian handmade (MH)	1	14.3
Merovingian wheel-thrown (MW)	6	85.7
Total	7	100

pottery assemblage from feature 567. Both features probably belong to the same layer. Feature 567 contained 67 fragments weighing 857 g. Table 6.10 shows that most fragments but also the largest fragments come from MW ware. All other wares are distributed evenly over the other groups. Handmade pottery from this period (MH) is again sparse. Compared to features 608 and 625, 567 contains fewer indigenous terp pottery and AS-style pottery. This is in line with the higher elevation of feature 567: this was excavated at levels 2 and 3 in trench 8; feature 625, at level 4.

A small number of diagnostic sherds were identified, so small as not to have any statistical significance (Tables 6.11 and 6.12). The assemblage does, however, contain six MW types that are also represented in feature 625. Here, pots from the third chronological group predominate: MWIA5 and MWIE1 together make up 66.7% of the MNI. Taking into account that feature 567 is higher and possibly younger, the assignment of both types to the third chronological group is still valid, although a slightly earlier date of these types cannot be ruled out. It is likely that the layers of debris and waste on the surface grew thicker through time by the accumulation of fresh waste. It is also likely that fragments of different pots were trampled in the dirt while on the surface; this may apply to the MWIA5 and MWIE1 sherds in feature 625. Which means that this higher part of the waste layer probably belongs to the second half of Period IV, in the first half of the 7th century. MWIE1 may indeed have started in this period, slightly earlier than its assumed starting date of 670.

6.5 The start of the importation of Merovingian pottery

One of the features that were discussed above is no. 1233. Although fragments from other kinds of pottery were found within this layer, around 85–87% (by number and weight) was wheel-thrown. Which shows that in the 6th century (part of Period IIIB and part of Period IV²¹), most of the pottery was wheel-thrown and imported from the German Rhineland, which belonged to the Frankish realm. This is quite amazing considering that most of the

Table 6.12 Distribution of MW pottery types from feature 567.

Pottery group	Type	Subtype	MNI	%	From	To	Chronology
MWI	A	5	3	50.0	600	700	Third group
MWI	E	1	1	16.7	670	750	Third group
MWI	E	2b	1	16.7	500	550	First group
MWI	E	4	1	16.7	500	550	First group
Total	6	100					

5th-century pottery at Wijnaldum was handmade and locally produced. When did the inhabitants of Wijnaldum start to import Frankish pottery, and what prompted them to do so?

In feature 1233, very few fragments of Migration-period handmade pottery were found, compared to wheel-thrown ware. This suggests a chronological sequence. In the 6th century, wheel-thrown pottery seems to have almost completely replaced migration-period handmade pottery.

An interesting feature in this context is the cluster of fragments of seventeen very similar orange coarse-ware pots of types MWIC1 and MWIE4 (find no. 7572). The affinity of MWIC1 with the late-Roman type Alzey 32/33 suggest that these finds belong to the earliest arrivals of wheel-thrown pottery at Wijnaldum-Tjitsma. This deposition is dated ca AD 500. Considering the ‘freshness’ of these fragments, they had probably arrived here shortly before, at the end of the 5th century.

This development becomes even more interesting if we compare Wijnaldum-Tjitsma’s pottery assemblage with its counterpart on the other side of the Vlie estuary, Den Burg-Beatrixlaan on the island of Texel.²² There, the wheel-thrown wares seems to arrive with new settlers. There were no residents with Migration-period handmade pottery (Anglo-Saxon style, type A2, or undecorated A1) to welcome them. The area seems to have been abandoned for longer than that of Wijnaldum, between AD 325 and at least 450 or, more likely, 475. At Den Burg-Beatrixlaan, new settlers did not arrive from the north, as in Wijnaldum. Their Frankish material culture indicates that they instead came from the south. After a while they seem to have started making pottery of their own by hand, by imitating the steep coarse-ware pots. The earliest examples look rather clumsy, thick-walled and heavy, possibly

21 Gerrets & De Koning 1999; see also Chapter 9, this volume.

22 De Koning 2018; in prep.

because they had to get used to the local raw material, Holocene clay. Just like their predecessors in prehistory and the Roman period on Texel, they added chaff and/or grass and dung to prevent the pots from breaking when used as cooking pots. This kind of early-medieval pottery was also made in Friesland, where it is known as Tritsum ware. Taayke (see Chapter 4) concludes that this ware originated in the 6th century.

The assemblages of wheel-thrown pottery from Den Burg-Beatrixlaan and Wijnaldum-Tjitsma are very similar. This may be no coincidence. The western Netherlands and Texel became repopulated in the late 5th and early 6th century. This new population arrived with Frankish goods and probably with strong connections to the Frankish region. It is probably just after the arrival of the new inhabitants in Texel (and the western Netherlands) that Frankish goods started to flood Westergo. Because of its central position, Wijnaldum seems to have become a hub connecting interacting inhabited areas in the northern and western coastal areas. This development may have sparked the emergence of the coastal kingdom of Frisia that we know from the *Lex Frisionum*, and that is also marked by striking elite goods such as the famous brooch (see Chapter 1).²³

This also offers an explanation for the differences between the Frisian sub-regions in the distribution of Frankish pottery. The amount of imported wheel-thrown pottery seems to decrease towards the east, with a clear peak in the west and northwest around Wijnaldum-Tjitsma, but also Den Burg-Beatrixlaan on Texel. At Den Burg, the share of Merovingian imported pottery is even higher than at Wijnaldum: 70.6% and 63.7%, respectively.²⁴ This contrasts with the distribution of wheel-thrown pottery across other parts of the provinces of Friesland and Groningen. Our knowledge of this distribution is far from complete as there are not many sites that have been excavated on a comparable scale.²⁵ Nevertheless, there are two large-scale terp excavations that offer sufficient evidence. Of the Merovingian-period pottery assemblage from the excavation at Leeuwarden-Oldehoofsterkerkhof in Friesland, 38% of the pottery was wheel-thrown, consisting mostly of coarse ware.²⁶ At Ezinge in Groningen, 30% of the pottery of the Merovingian period was imported wheel-thrown, mostly coarse ware.²⁷ Other settlements have far fewer amounts of Merovingian imported pottery, but since there is an obvious research gap, these data are less reliable. What is clear is that settlements further from Wijnaldum have a considerably smaller

proportion of wheel-thrown pottery during this period than Wijnaldum itself or Texel.

The remarkable differences between the eastern and western part of the northern Netherlands were previously noticed by Knol (see Figure 9.17).²⁸ He suggested a main flow of goods through the central part of the Netherlands first arriving in Westergo and then partly distributed along the coastal settlements to the east. With what we know now about Wijnaldum-Tjitsma and Den Burg-Beatrixlaan, we now suggest that the main influx of Frankish goods came through a more westerly route, with Texel as a first distribution centre maybe even by the late 5th century, followed by Wijnaldum as a second distribution centre for settlements along the northern Frisian and Groningen coastal areas.

6.6 Conclusions

In this chapter, a number of contexts with a sufficient number of pottery were selected, for analyses of the chronology of Merovingian pottery and the proportions of imported wheel-thrown and local, handmade pottery in this period at Wijnaldum. These contexts belong to Periods IIIB (AD 475-550) and IV (550-650), when Wijnaldum and its surroundings became an important political centre maintaining contacts with Scandinavia, but also with the Frankish world. Large amounts of wheel-thrown pottery were imported starting from the late 5th century, in Period IV even forming 63.7% of the total pottery assemblage. Imported pottery, perhaps from a fresh shipment, was selected in at least one case for what seems to be a ritual deposition. This assemblage, consisting of many rim sherds of different pots of similar types, shows that the importation of wheel-thrown pottery was not something incidental, but a relatively large-scale affair that involved a structural supply of goods.

We suggest that the large-scale importation of Merovingian pottery was related to the repopulation of the western Netherlands and especially of the nearby island of Texel at the end of the 5th century. This new population was connected to the Frankish world, rather than to the Scandinavian world as the population of the terp region was. Wijnaldum became a hub between the Frankish world and the northern coastal area, and thereby developed into a political centre that controlled the distribution of Frankish goods, notably imported pottery, to its hinterland across the north.

Imported ware would have been distributed to other regions and settlements, but also used locally at Wijnaldum, as small and abraded sherds in the settlement waste indicate. It became the normal household pottery of the 6th and first half of the 7th century. Handmade pottery kept being used, as is evident from the contexts discussed here, be it in small quantities. But there were exceptions. Some households, such as the one using Hearth 15, which was plastered with sherds from several

²³ Nicolay 2014; see also Chapter 1, this volume.

²⁴ De Koning in prep.

²⁵ This is why new research by Angelique Kaspers (see Chapter 8) employs a different way of collecting pottery and data on the distribution of imported wares and on the relationship between these northern regions and the Frankish realm: by means of field surveys. This has already resulted in a huge increase in finds (Kaspers & Sibma 2017; Kaspers 2019).

²⁶ Reigersman-van Lidth de Jeude *et al.* 2008, 141.

²⁷ Thasing & Nieuwhof 2014, 139-140.

²⁸ Knol 1993, 243 and fig. 55.

handmade pots, may have preferred, and perhaps kept producing, handmade pottery.

The absence of (indigenous) Roman-period pottery in a feature as large as no. 1233 indicates that this part of the terp only developed from Period IIIB on. In another part of the terp (Well 9 and features 567 and 625), many small fragments of indigenous pottery from the Roman period were found, demonstrating that this part of the early-medieval settlement was situated on top of the Roman-period terp (Periods I and II).

The pottery assemblages from these contexts more or less confirm the chronology of Merovingian imported pottery proposed in Chapter 5, albeit with some adjustments. Notably, type MWIE1, which clearly belongs to the third chronological group as defined in Chapter 5, occurs consistently in contexts that are earlier than AD 670-750, the period to which it was assigned. A starting date within Period IV, before AD 650, seems likely. The same may apply to type MWIA5, which may have a starting date before the proposed AD 600.

From AD 650, the importation of wheel-thrown ware from the Rhineland strongly decreased. Local hand-made pottery resumed the role it had played before the Merovingian Period, and once more became the commonly used kind of pottery in the northern Netherlands and adjacent northwestern Germany. The local and regional A3/A4 types developed into the successful globular pots, which spread across northwestern Europe and remained in use from the 8th to the 14th century. Only then did wheel-thrown pottery take over again. The next chapter, Chapter 7, is devoted to this development.

References

- Gerrets, D.A. & J. de Koning, 1999: Settlement development on the Wijnaldum-Tjstma terp. In: J.C. Besteman, J.M. Bos, D.A. Gerrets, H.A. Heidinga & J. de Koning (eds), *The excavations at Wijnaldum. Reports on Frisia in Roman and Medieval times. Volume I*, Rotterdam/Brookfield, 73-124.
- Kapers, A., 2019: Wat scherven vertellen over terpen en handel. *De Vrije Fries* 99, 169-174.
- Kaspers, A. & T. Sibma, 2017: Veldkarteringen in het terpengebied: een pilot in noordelijk Westergo. *Paleo-aktueel* 26, 49-58.
- de Koning, J., 2018: *Trans Flehum*. Wijnaldum, Den Burg, Texel, Westergo: het Vlie als verbinder en grens. In: A. Nieuwhof, E. Knol & J. Schokker (eds), *Fragmenten uit de rijke wereld van de archeologie* (= Jaarverslagen van de Vereniging voor Terpenonderzoek 99), Groningen, 146-156.
- de Koning, J., in prep.: Het vroegmiddeleeuwse aardewerk. In: P.J. Woltering, *Bewoningsgeschiedenis van Texel: De opgravingen aan de Beatrixlaan in Den Burg (vroegmiddeleeuwen 450-900 na Chr.*
- Knol, E., 1993: *De Noordnederlandse kustlanden in de vroege Middeleeuwen* (= PhD dissertation Vrije Universiteit Amsterdam). Groningen.
- Krol, T.N., M. Dee & A. Nieuwhof, 2020: The chronology of Anglo-Saxon style pottery in radiocarbon dates: improving the typo-chronology. *Oxford Journal of Archaeology*
- Nicolay, J.A.W., 2006: Een koninklijk machtscentrum in vroegmiddeleeuws Friesland? De interpretatie van goudvondsten uit de late zesde en vroege zevende eeuw na Chr. *De Vrije Fries* 86, 33-94.
- Nicolay, J.A.W., 2010: Settlement research and material culture in the northern Netherlands: Herrenhöfe and other evidence of socio-political differentiation. *Siedlungs- und Küstenforschung im südlichen Nordseegebiet* 33, 119-132.
- Nicolay, J.A.W., 2014: *The splendour of power. Early medieval kingship and the use of gold and silver in the southern North Sea area (5th to 7th century AD)* (= Groningen Archaeological Studies 28). Groningen.
- Nieuwhof, A. & J.A.W. Nicolay, 2018: Identiteit en samenleving: terpen en wierden in de wijde wereld. In: A. Nieuwhof, J.A.W. Nicolay & J. Wiersma (eds), *De geschiedenis van terpen- en wierdenland. Een verhaal in ontwikkeling* (= Jaarverslagen van de Vereniging voor Terpenonderzoek 100), Groningen, 57-84.
- Reigersman-van Lidth de Jeude, W.F., M. Bijlsma & C. Nooijen, 2008: Het aardewerk. In: J. Dijkstra, & J.A.W. Nicolay (eds), *Een terp op de schop. Archeologisch onderzoek op het Oldenhoofsterkerkhof te Leeuwarden* (= ADC monografie 3/ADC rapport 1227). Amersfoort, 109-144.
- Sablerolles, Y., 1999: Beads of glass, faience, amber, baked clay and metal, including the production waste from glass and amber bead making. In: J.C. Besteman, J.M. Bos, D.A. Gerrets, H.A. Heidinga & J. de Koning (eds), *The excavations at Wijnaldum. Reports on Frisia in Roman and Medieval Times I*, Rotterdam/Brookfield, 253-287.
- Thasing, S. & A. Nieuwhof, 2014: Importaardewerk in Ezinge. Uitwisseling en sociaal-politieke structuur in de Romeinse tijd en de vroege middeleeuwen. In: A. Nieuwhof (ed.), *En dan in hun geheel. De vondsten uit de opgravingen in de wierde Ezinge* (= Jaarverslagen van de Vereniging voor Terpenonderzoek 96), Groningen, 129-146.

university of
groningen

groningen institute
of archaeology

Wijnaldum is nowadays an unassuming rural village in the north of the province of Friesland, no more than a small dot on the map of the Netherlands. But during the Early Middle Ages, this probably was a lively political centre, a kingdom, with intensive contacts with other kingdoms along the North Sea coasts, and with the Frankish realm to the south. The search for the king that resided at Wijnaldum was the major goal of the excavations that were carried out at the terp Wijnaldum-Tjitsma between 1991 and 1993. These excavations yielded a wealth of information, although tangible remains of the king or a royal residence were not found. What was found was a lot of pottery. The ceramic assemblage from the first Millennium consists of local handmade and imported wheel-thrown pottery, revealing contacts with the wider world.

The first results and an overview of the habitation phases were published in 1999, in Volume 1 of *The Excavations at Wijnaldum*. The ceramic assemblage, and its consequences for the habitation history of Wijnaldum, are the main subjects of this second volume of *The Excavations at Wijnaldum*.

9 789493 194106