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Worlds on a string: on beads and exchange in Merovingian Northern Gaul

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Citation

Langbroek, M. B. (2026, September 17). *Worlds on a string: on beads and exchange in Merovingian Northern Gaul*. Retrieved from <https://hdl.handle.net/1887/4309681>

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Chapter Two

Beads in the sixth century

Exploring beads from three cemeteries in the east of the Netherlands

1. Introduction

Hundreds of thousands of beads are known from numerous rural cemeteries dating to approximately 450 and 750 in Northwestern Europe (fig. 2.1). Usually, they are found as necklaces or bracelets that adorned the deceased person in the grave. Occasionally beads are found at hip height, as a collection in a purse or suspended from a belt. Most beads are found in graves of women and children, although the occasional sword or belt bead is found in graves of men¹⁸⁰. In the past, beads have been dismissed as meaningless trinkets, and were often deemed too insignificant to even depict in many site publications. Until recently, apart from the mainly German typological studies of beads as a means of dating Merovingian graves, very little research has focused on them.¹⁸¹ In the last decade or so it has become clear that bead research has much more to offer and as a result more and more research of Merovingian beads is being conducted.¹⁸²

Beads are durable, portable, ubiquitous, and highly variable objects. They are also a means to gain a better understanding of mercantile and other networks that facilitated long-distance trade. For example, archaeometric analysis of Merovingian glass beads from France and Belgium has demonstrated that in the fifth and sixth centuries, many monochrome glass beads were imported into Europe from Egypt, the Syro-Palestinian coast, and even from as far away as India and Sri Lanka.¹⁸³ In Merovingian graves from Belgium dating to the fifth or sixth century, it is not uncommon to find beads with provenances as varied and far apart as India, Mesopotamia, Egypt, the Syro-Palestinian coast, the Mediterranean, the Baltic and Northwestern Europe itself, often strung together on a single string of beads (fig. 2.2).¹⁸⁴

Do bead assemblages from Merovingian cemeteries in the Netherlands dating to the sixth century display the same connectivity? In what numbers do beads appear and in what ratio of graves? Are there differences between early-sixth, mid-sixth and late-sixth century bead sets, and how do these

¹⁸⁰ Gender: usually no bones are preserved. There is the danger of circle reasoning when determining the sex on the basis of beads. The gender determination 'woman' on the basis of beads needs, in principle, not be a statement on the sex or corporeal condition of a buried person. However, when bones are preserved, those interred with beads are indeed mostly (corporeal) women. See also Perez 2020 and Halsall 2020.

¹⁸¹ Koch 1977; Sasse/Theune 1997; Siegmund 1998; Von Freeden/Wieczorec 1997.

¹⁸² Bruggmann 2004; Peake 2013; Pion 2014; Mannion 2015; Langbroek 2016; Langbroek 2018.

¹⁸³ Pion 2014, 178-230; Pion/Gratuze 2016; Pion *et al.* 2020.

¹⁸⁴ Pion 2014.

compare to beads from contemporaneous sites in Europe? In this chapter, beads from three sixth-century cemeteries from the central eastern part of the Netherlands (Lent-Lentseveld, Elst-’t Woud and Wijchen-Centrum) (fig. 2.3) will be studied and compared to beads from other sixth-century cemeteries in Europe. This dataset allows an assessment of whether beads with a non-European provenance were available to people throughout Europe.

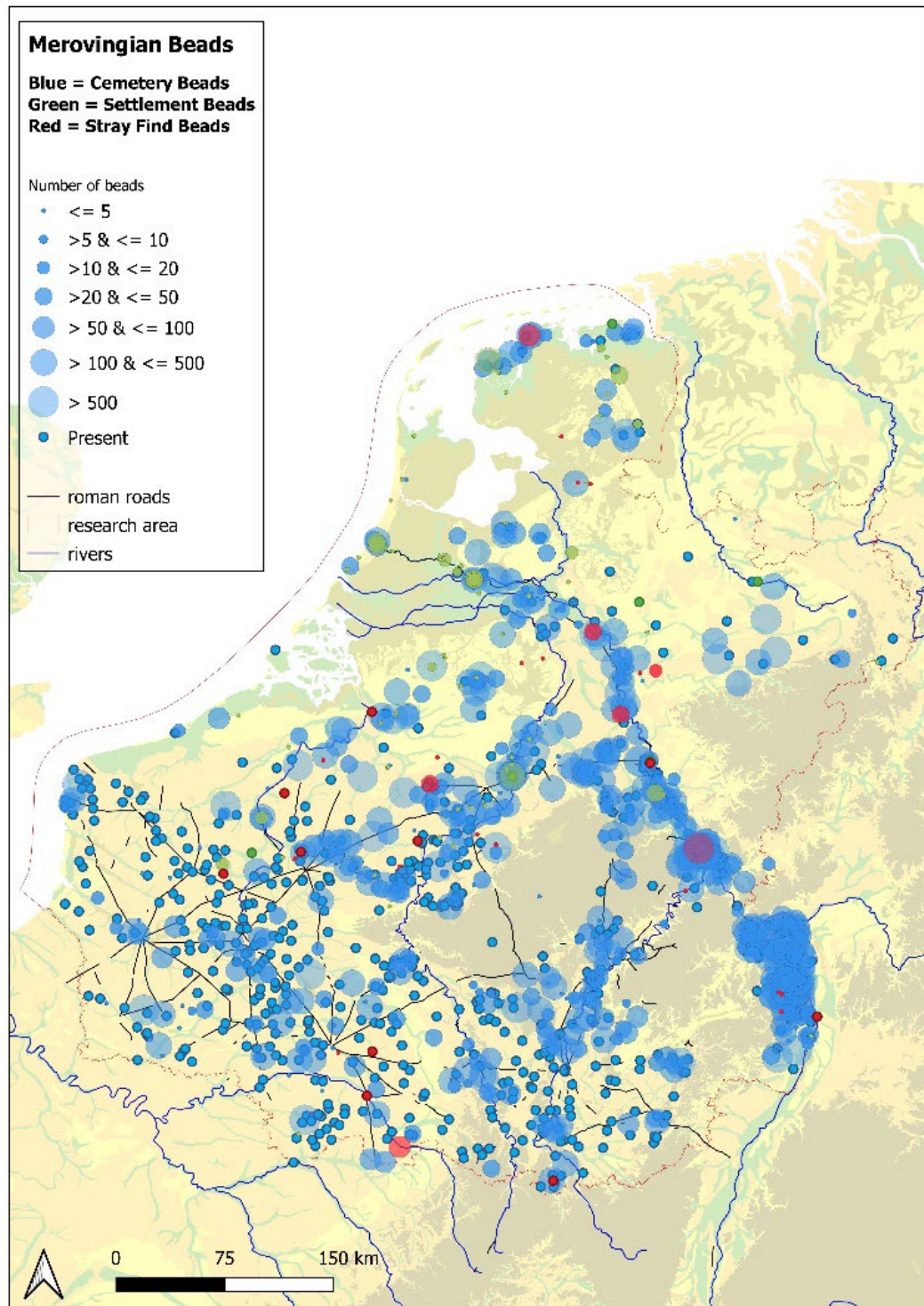


Fig. 2.1 Find locations of beads dating to the Merovingian period in northern Gaul. Source: www.earlymedieval europe.org (Online Database ERC Rural Riches).



Fig. 2.2 Necklace and bracelet from Viesville grave 14 containing beads made from glass, amber, faience and meerschaum, with provenances in Egypt, the Syro-Palestinian coast, the Mediterranean, the Baltic, and Northwestern Europe. Photo: R. Gilles ©SPW-Department.



Fig. 2.3 Locations of the cemeteries in this study. 1. Lent-Lentseveld; 2. Elst-'t Woud; 3. Wijchen-Centrum.

This chapter will be structured as follows: First, the typology and method used will be elaborated upon, after which the three case-study sites from the eastern part of the Netherlands are introduced. Then, in the results section the beads and bead ensembles of each site will be described and summarised per third of the sixth century, in order to allow an assessment of continuity or change of bead-use over time. As in both Wijchen-Centrum and Elst-'t Woud several bead ensembles were found in graves dating after the sixth century, a short excursion on early seventh century beads will be made afterwards.¹⁸⁵ After completing these descriptions, they will be compared to contemporaneous beads and bead-ensembles excavated from cemeteries elsewhere in Europe that are already published. Finally, the findings will be discussed, compared and contrasted, and the research questions posed above answered.

¹⁸⁵See chapter three for a more thorough assessment of beads from seventh century graves.

2. Method

The beads found in the three sites from the east of the Netherlands have been categorised using the typology that was developed by Constantin Pion in 2014. Pion's typology is based on the seriation of over 21.000 beads found in six Merovingian cemeteries from Belgium. It was later adjusted and improved by Vrielynck, Mathis and Pion in 2018.¹⁸⁶ What sets Pion's typology apart from the others is that it was built taking the techniques used to manufacture Merovingian beads as a starting point. Merovingian beads were produced using a variety of techniques; most glass beads were either drawn or wound, but folded, perforated and mosaic beads occur regularly as well. Beads of other materials than glass, such as amber, amethyst or rock crystal were shaped by cutting or knapping techniques before being polished (fig. 2.4). Winding beads seems to have been a European phenomenon, whereas other forming techniques were used in the Mediterranean, Egypt, the Syro-Palestinian Coast, Mesopotamia and India (table 2.1).¹⁸⁷ For drawn beads, the manner in which drawn tubes were cut into beads and their size can reveal more specific information about where they were produced. For example, evidence for the production of drawn beads with so-called strangled or constricted ends during the sixth century was excavated in Kom-el-Dikka, Egypt.¹⁸⁸ The chemical composition of other drawn bead-types with strangled ends suggests that they may have been produced along the Syro-Palestinian Coast as well.¹⁸⁹ Chemical analyses of beads with a diameter under 2.5 millimetres and cold-cut ends that were rounded-off with a 'hot finish' (so-called *Indo-Pacific tradewind beads*) have demonstrated that these were made with high-alumina glass, which matches the evidence for several bead-making workshops excavated in southern India and Sri Lanka.¹⁹⁰ Similarly made beads (whether having received a 'hot finish' or not) with a larger diameter have a chemical composition (made with plant-ash glass) that reflects production in Mesopotamia.¹⁹¹ That leaves drawn beads with warm-cut edges, for which an origin in Egypt and/or the Syro-Palestinian Coast has been suggested.¹⁹² Fig. 2.5 depicts these four different edge-types of drawn beads.



Fig. 2.4 Examples of beads from the cemetery Lent-Lentseveld made with various production techniques. A: drawn bead with lines parallel to the perforation; B: wound bead with concentric lines around the perforation; C: folded bead with visible seam; D: perforated bead with one irregular side; E: mosaic bead formed by various slices of mosaic glass; F: amber bead with cut and polished faces. Photo's: M.B. Langbroek.

¹⁸⁶ Vrielynck/Mathis/Pion 2018.

¹⁸⁷ For a detailed discussion on bead techniques and their provenances, see Pion 2014, 178-229 and references therein.

¹⁸⁸ Greiff/Nallbani 2008; Spaer 1993; Rodziewicz 1984.

¹⁸⁹ Pion 2014, 198-200.

¹⁹⁰ Pion/Gratuze 2016.

¹⁹¹ Pion 2014, 215-219.

¹⁹² Pion 2014, 219-222; see also Langbroek *et al.* 2022 and Langbroek *et al.* 2023/2024 (also printed as chapters four and five, this volume).

Table 2.1 Bead making techniques and their provenances (based on Pion 2014).

Technique	Type group	Provenance
Drawn Beads	A	India/Mesopotamia/Egypt/Syro-Palestinian coast
Wound Beads	B	Europe (mostly)
Folded Beads	C	Egypt/Syro-Palestinian coast
Perforated Beads	D	Mesopotamia/Egypt/Syro-Palestinian coast
Mosaic Beads	E	Egypt
Beads from other materials	F	Various Provenances
Prehistoric or Roman beads	G	Various Provenances



Fig. 2.5 Examples of drawn beads made with the four different finishing techniques discussed in this chapter. Photo's: M.B. Langbroek.

Table 2.2 Overview of the bead periods by Pion 2014, with LPV phases and date-approximation.

Period	Legoux et al. 2004	Date (approximation)
P1	MA1	470/480-520/530
P2	MA2	520/530-560/570
P3	MA3	560/570-600/610
P4	MR1	600/610-630/640
P5	MR1/MR2	630/640-660/670

In Pion's typology, each bead type is dated to one or multiple periods (P1, P2, P3, P4 or P5) within the Merovingian era. Pion pairs his bead phases roughly to the chronological periods defined by Legoux et.al. 2004 for early medieval grave goods in Northern France, as these are commonly used to study Merovingian cemeteries in Belgium, including the cemeteries in his study, and seem to fit the bead phases just fine (table 2.2). As Pion's typology is based on a seriation of bead ensembles from 539 graves it is by definition relative, and only shows which strings of beads are averagely earlier or later than others, accepting the premise that the ordering is based on the chronological position of strings vis à vis one another and not on other variables such as age of the deceased.¹⁹³ Strings of beads may have been worn for shorter or longer periods than average, or even not worn at all before being deposited in a grave, which may not be reflected in the date assigned to string. Perhaps a string of beads was strictly personal and consequently buried with the person in the grave. Considering the fact that Pion has been able to identify a nearly complete new set of bead types for every third of the sixth century, this scenario does not seem unlikely. If this was the case, as not everyone died at the same age, the date assigned to a string of beads should be considered with due caution.

¹⁹³ This is of course the case for every typology: see Kars 2011.

Besides identifying and dating each bead according to Pion's typology, their material, condition, production technique, size, colour ¹⁹⁴, decoration ¹⁹⁵ and provenance ¹⁹⁶ were documented. With the help of a stereomicroscope several visual observations were documented per bead as well. Finally, when available, the beads were photographed. All beads from Lent-Lentseveld and Elst-'t Woud were available for study. 469 of the beads from Wijchen-Centrum were physically examined as well, but not the 543 beads that remained on display in *Museum Kasteel Wijchen* and *Museum het Valkhof*. ¹⁹⁷ These were studied from photographs. In table 2.3 an overview of the studied material is provided. The percentages of inhumation graves with beads are very high for Lent and Elst, amounting to almost every female-gendered inhumation grave in these cemeteries. This is not the case for Wijchen, which can probably be explained by the fact that many graves were disturbed by the settlement that occupied the site from the Carolingian period onwards. In total 3921 beads from these three sixth-century cemeteries in the east of the Netherlands were studied. The determination tables for all the studied beads can be found online, organised per grave per cemetery, at www.earlymedieval europe.org. A photograph of each bead-type found in these three cemeteries can be found in appendix 2.4.

Table 2.3 Overview of beads studied in this chapter.

Site	date cemetery	nr. of graves	nr. of graves with beads	nr. of inhumation graves	nr. of inhumations with beads	percentage of inhumations with beads	presumed percentage female inhumations with beads	beads examined	beads examined from photograph	total beads studied	total beads found
<i>Lent-Lentseveld</i>	500-575	79	29	55	26	47,0%	94,0%	1205	0	1205	1205
<i>Elst-'t Woud</i>	450-725	260	57	95	39	41,0%	82,0%	1741	4	1745	1771
<i>Wijchen-Centrum</i>	400-640	345	66	309	64	21,0%	42,0%	417	554	971	1009
total beads	x	x	x	x	x	x	x	3363	558	3921	3984

Before continuing, a critical note on the manner of dating of the beads in this chapter has to be made. As stated above, Pion's relative dating sequence will be used. This automatically means that the beads and bead-ensembles he classifies as P1, P2 or P3 (roughly early, mid or late sixth century) will be classified likewise in this chapter. As such, the development of bead-use in the sixth century as aimed to be studied in this chapter will inevitably be a copy of Pion's. This is problematic, as one of the aims here is to assess *whether* beads from sixth century contexts in the Netherlands are like those from Belgium studied by Pion. The fact that beads of a specific type may have been deposited in early sixth-century graves in Belgium does not necessarily mean they can be dated similarly in a different region as well. To compensate for this problem, the date of the bead ensembles based on Pion is always compared to the date attributed to the grave in the relevant cemetery's publication. As we will see, these dates generally do not differ much from one another: if anything, Pion's method seems to be able to make them more specific.

¹⁹⁴ For an overview of bead colours of Merovingian beads, see appendix 2.3.1.

¹⁹⁵ For an overview of decorations patterns and their names present on Merovingian beads, see appendix 2.3.2.

¹⁹⁶ Based on the production methods used to produce each bead. Chemical analyses of Merovingian beads have confirmed these provenances (Gratuze 2014 in Pion 2014, Pion/Gratuze 2016, Boschetti *et al.* 2020, Langbroek *et al.* 2022 Langbroek *et al.* 2023/2024).

¹⁹⁷ Originally it was intended to study these beads in these museums. Unfortunately Covid-19 restrictions made this impossible.

3. The Sites

3.1 Lent-Lentseveld

The cemetery of Lent-Lentseveld is a small sixth-century cemetery of 24 cremation and 55 inhumation graves that has been excavated by the Town of Nijmegen in 2011 and 2015 in the village of Lent, north of the town of Nijmegen in the Netherlands.¹⁹⁸ It dates between 500 and 600 CE, and probably even between 520 and 580 CE.¹⁹⁹ In total 1205 beads were found in Lent in 29 different graves: 26 inhumations and 3 cremations, found in 40 different 'groups' (fig. 2.6).²⁰⁰ The beads were mainly found in children's and women's graves: seven children's graves, 19 women's graves and one man's grave.²⁰¹ In table 2.1.1 in appendix 2.1 an overview of all the beads per grave is provided. Most groups of beads were found near the neck or chest. It is most likely that these were necklaces, although they could also have been sewn onto the neckline of clothing. In two cases beads were found near an arm: these were probably bracelets. And in at least one case beads must have been attached to a belt, since they were found near the hip, just as several of the large glass 'spindle whorl beads'.

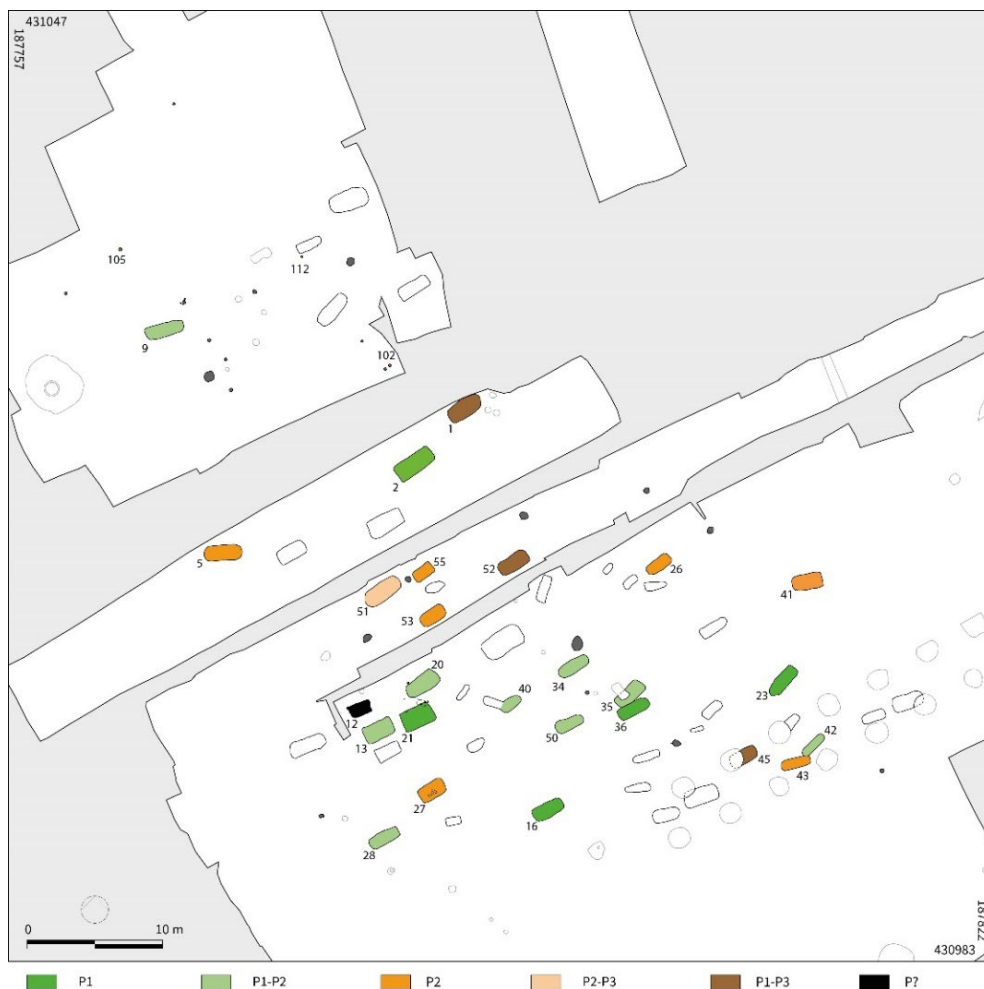


Fig. 2.6 Plan of the sixth century cemetery Lent-Lentseveld. Graves with beads are marked per bead-phase. Map by J. Hendriks, Municipality of Nijmegen, edited by the author.

¹⁹⁸ Hendriks 2021.

¹⁹⁹ Result of a specialist meeting on Lent-Lensteveld in 2022.

²⁰⁰ For a detailed study of the beads from Lent-Lentseveld, see Langbroek 2021a.

²⁰¹ These are sex determinations based on a physical-anthropological study of the preserved skeletal material from the graves of Lent-Lentseveld (Van der Linde 2021) which was confirmed by the aDNA research.

3.2 Elst-'t Woud

The cemetery of Elst-'t Woud is a cemetery of 95 inhumation and 165 cremation graves located on the northern bank of the Rhine River. It dates to the fifth, sixth and seventh century. It was excavated by the *Rijksdienst voor Oudheidkundig Bodemonderzoek* (ROB) in 1981, but was first published much later, in 2015.²⁰² In total 1771 beads were excavated from 39 inhumation graves and 18 cremation graves, in 81 different 'groups' (table 2.1.2 in appendix 2.1) (fig. 2.7). As hardly any skeletal material was preserved, it is difficult to tell how many strings of beads were buried with (corporeal) women, men or children. When beads were found, the graves were generally assigned to the female gender. 1742 of the beads were physically available for study, the rest were determined with the help of photographs and descriptions. Most groups of beads were found in the neck/chest area, or at the hip or upper legs: beads were deposited as necklaces, in a purse at the hip or, in the case of large spindle whorl beads, suspended from a belt.

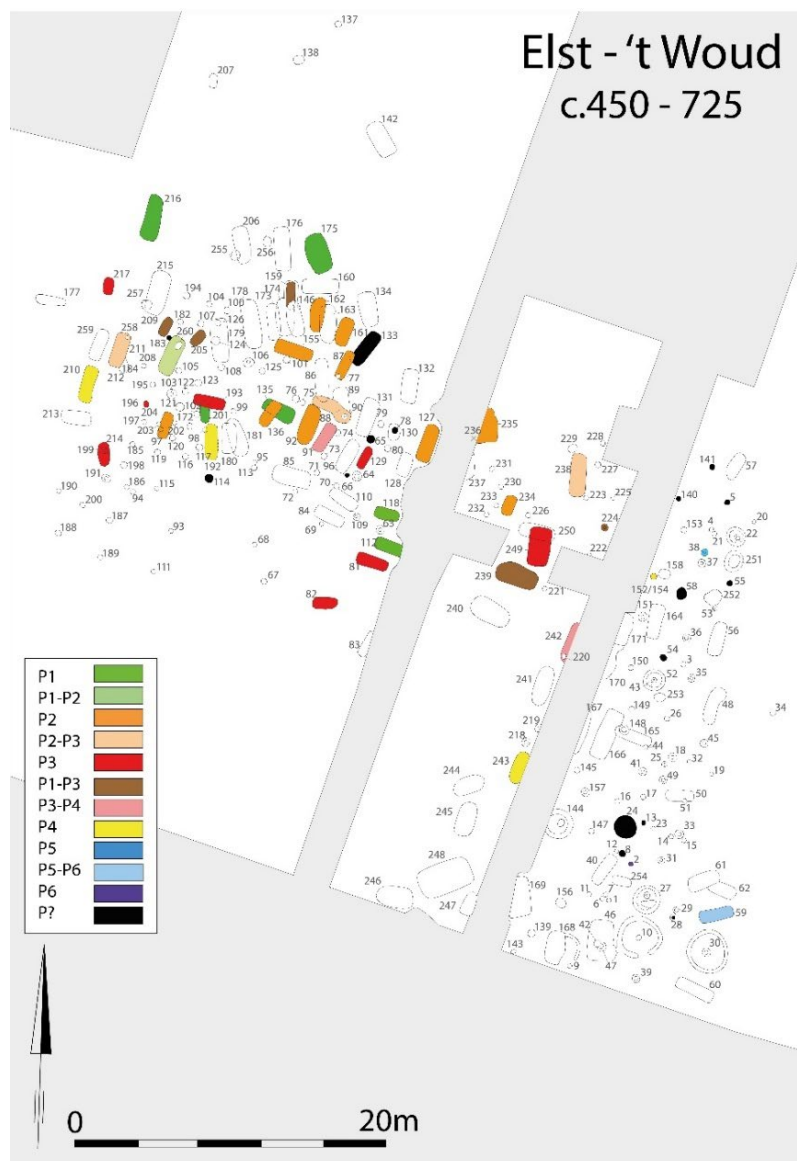


Fig. 2.7 Plan of the Merovingian cemetery Elst-'t Woud. Graves with beads are marked per bead-phase. Map by F. Theuws (after the original in Verwers/Van Tent 2015), edited by the author.

²⁰² Verwers/Van Tent 2015.

3.3 Wijchen-Centrum

The cemetery of Wijchen-Centrum is a cemetery of 309 inhumation and 36 cremation graves located between rivers Waal and Meuse just south of the town of Nijmegen, that roughly dates between 400 and 640 CE. It was excavated by the *Rijksdienst voor Oudheidkundig Bodemonderzoek* (ROB) in 1991, 1992 and 1996 but was first published much later, in 2010.²⁰³ In total 1012 beads were excavated from 64 inhumation graves and two cremation graves, in 87 different ‘groups’ (table 2.1.3 in appendix 2.1) (fig. 2.8). As hardly any skeletal material was preserved, it is difficult to tell how many strings of beads were buried with women, men or children. When beads were found, the graves were generally assigned to the female gender. Most groups of beads were found in the neck/chest area as necklaces, or as single beads at the hip. In comparison to Lent and Elst fewer beads were found per grave in Wijchen, which can probably be explained by the disturbances created by younger graves cutting through older graves in the cemetery and the settlement that occupied the site from the Carolingian period onwards.



Fig. 2.8 Plan of the Merovingian cemetery Wijchen-Centrum. Graves with beads are marked per bead-phase. Map by S. Heeren/Hazenberg Archeologie, edited by the author.

4. Results

4.1 P1

Definition P1 Strings

According to Pion's typology strings of beads from the earliest Merovingian graves excavated in Belgium dating to P1, share several characteristics. Firstly, they resemble strings of bead occasionally found in

²⁰³ Heeren/Hazenberg 2010.

late Roman graves: they contain a majority of small drawn and cold-cut or strangled monochrome glass beads whose colours seem to imitate gemstones and precious metals such as turquoise, silver and gold. Wound, polychrome glass beads only occur occasionally. Generally, these are black opaque annular beads decorated with either white or yellow waves, blue beads decorated with multicoloured irregular dots (confetti beads) made in Egypt or large spindle whorl beads with a combed spiral decoration. Monochrome wound beads are less rare than wound polychrome beads: annular beads made of 'colourless', translucent cobalt blue or black opaque glass, lobed melon beads and small wound black beads occur regularly. Other P1 strings contain a majority of small amber beads in regular annular and fusiform shapes. Lastly, glass beads made with other techniques such as folded beads, perforated beads, hexagonal mosaic beads and beads made of rock crystal or lignite occur sporadically in P1 strings (Pion 2014, 135-138, 156). A typical example of a P1 string according to Pion can be seen in fig. 2.2.

P1 beads vs grave dates

In total, 783 beads from Lent-Lentseveld, Elst-'t Woud and Wijchen-Centrum belong to strings of beads that can be dated to P1 were excavated from 21 different graves (table 2.4). Not all of these graves are dated to the same period in their respective publications: based on other finds, Lent-Lentseveld graves 16, 21 and 36 are dated to MA2, or the mid sixth century. Still, the C14 dates available for graves 16 and 36 firmly date these before 550 CE (personal communication J. Hendriks). The P1 date for the beads from grave 21, for which no C14 date is available, is based on 12 beads only, most of which have roots in the Roman Era. It is thus conceivable that these were interred in MA2 instead, which is not so much later. Graves 112, 118 and 216 from Elst-'t Woud are dated to the second half of the sixth century. However, every single find in these graves can be dated to the first half of the sixth century. The authors provide no reason for dating these graves so 'late'. Only one P1 bead was found in graves 10, 40 and 81 from Wijchen-Centrum, that are also dated to the mid (grave 10) and late sixth century (40 and 81). The beads from graves 40 and 81 may in fact have originally been deposited in earlier graves, that were cut by graves 40 and 81. Grave 10 is dated based on stratigraphy alone. All in all, all P1 strings of beads from Lent, Elst and Wijchen were most likely interred before the middle of the sixth century, which is just a little later than the date-range assigned to P1.

Table 2.4 Overview of P1 strings of beads from the cemeteries of Lent-Lentseveld, Elst-'t Woud and Wijchen-Centrum.

Site	Amount of graves with beads	average nr of beads per grave	beads examined	beads examined from photograph	total beads studied	total beads found
<i>Lent-Lentseveld</i>	5	27	134	0	134	134
<i>Elst-'t Woud</i>	6	77	456	0	456	456
<i>Wijchen-Centrum</i>	10	19	61	132	193	193
<i>total beads</i>	21	37	651	132	783	783

Description P1 strings Lent, Elst and Wijchen

The beads in the P1 strings from Lent, Elst and Wijchen (figs. 2.9-2.11) are generally very similar to those from Belgium, with a few exceptions: both contain a majority of drawn monochrome glass beads in typical P1 colours: blue-green, gold, silver and cobalt blue (tables 2.2.1.1 and 2.2.1.2 in appendix 2.2.1). However, in contrast to P1 bead sets from Belgium, the vast majority of drawn beads from Elst, Lent and Wijchen have strangled edges instead of cold-cut edges (table 2.2.1.3 in appendix 2.2.1). This observation is perhaps mirrored by the distribution of Indo-Pacific tradewind beads in Northern Gaul, that occur much more in northwestern France and along the Meuse in Belgium than in cemeteries

along the Rhine (fig. 2.12). Also, whereas in Belgium the majority of P1 glass beads is translucent, in the Netherlands the majority is opaque (table 2.2.1.4 in appendix 2.2.1). Much like P1 bead sets from Belgium, the occasionally occurring polychrome beads are decorated with (irregular) dots or waves (figs. 2.13 and 2.14), and the monochrome wound beads are generally annular beads made of 'colourless', translucent cobalt blue or black opaque glass (fig. 2.15). In all three cemeteries some of these strings are accompanied by finds of large spindle whorl beads made of glass, flint or marble (fig. 2.11). Whereas those examples made from marble may have a Mediterranean origin²⁰⁴, large spindle whorl beads made of translucent glass and decorated with an opaque white combed spiral decoration could have been made in Cologne.²⁰⁵ These large beads are found in northern Gaul quite regularly (fig. 2.16). Especially the P1 strings from Wijchen and Elst contain many small round or fusiform amber beads (figs. 2.10-2.11) (table 2.2.1.5 in appendix 2.2.1). In comparison, less amber beads were found amongst the P1 strings from Lent, as well as less drawn beads and more opaque annular glass beads in various colours (fig. 2.9). This difference may be explained by the later start date of Lent when compared to Elst and Wijchen in the early sixth rather than the (later) fifth century, when wound opaque beads became more readily available. The most typical P1 string from Lent, that was found in grave 36 (fig. 2.9), may even have been interred after P1 (see above). Lastly, in seven out of the 21 P1 bead-graves beads that originate from the Roman Era were found. These were not necessarily meant to be used as beads in Roman times: a piece of Samian ware, a rim of a Roman glass vessel, a Roman silver finger ring and shards of Roman millefiori glass were all refashioned into beads, besides the more commonly occurring Roman faience melon beads (table 2.2.1.2 in appendix 2.2.1).

Provenances

The large majority of beads from P1 strings from Belgium has an origin south-east and east of Europe, originating mainly in Egypt and the Syro-Palestinian Coast. Beads from Mesopotamia and India/Sri Lanka also occur frequently.²⁰⁶ Likewise, most P1 beads from Lent, Elst and Wijchen originate in Egypt and the Syro-Palestinian Coast (37 percent, see table 2.2.1.6 in appendix 2.2.1). However, significantly less beads from Mesopotamia and India/Sri Lanka occur. As was already remarked upon above, this difference may be reflected by the distribution patterns of both Indo-Pacific tradewind beads from India/Sri Lanka and confetti beads from Egypt, the former being more widespread in north western France and Belgium, the later occurring more frequently along the Rhine. Possibly, both distributions reflect different networks of bead exchange, that met one another in the Belgian Meuse valley and along the road from Cologne to Rouen and Amiens, where both bead types were interred fairly regularly. Besides a majority of 'beads from the east', 30 percent of P1 beads from Lent, Elst and Wijchen is made of amber and has a likely origin in the Baltic.²⁰⁷ The remaining 35 percent of beads were probably made in northwestern Europe itself, even when evidence of European bead production is missing for the late fifth and early sixth century.²⁰⁸

²⁰⁴ They may also have been made from recycled Roman marble already present in Northern Gaul.

²⁰⁵ Dodt 2016.

²⁰⁶ Pion 2014, 230.

²⁰⁷ Langbroek 2018.

²⁰⁸ Pion 2014, 180-189; 231.



Fig. 2.9 P1 strings of beads from the cemetery Lent-Lentseveld. Grave numbers are indicated. Photographs by A. Dekker.



Fig. 2.10 P1 strings of beads from the cemetery Wijchen-Centrum. Grave numbers are indicated. Photographs by M. Langbroek (29, 52, 235) and R. Mols (219).



112



118



175



216

Fig. 2.11 Impression of beads (a selection, not all beads) occurring in P1 strings from the cemetery Elst-'t Woud. Grave numbers are indicated. Photographs by M. Langbroek.

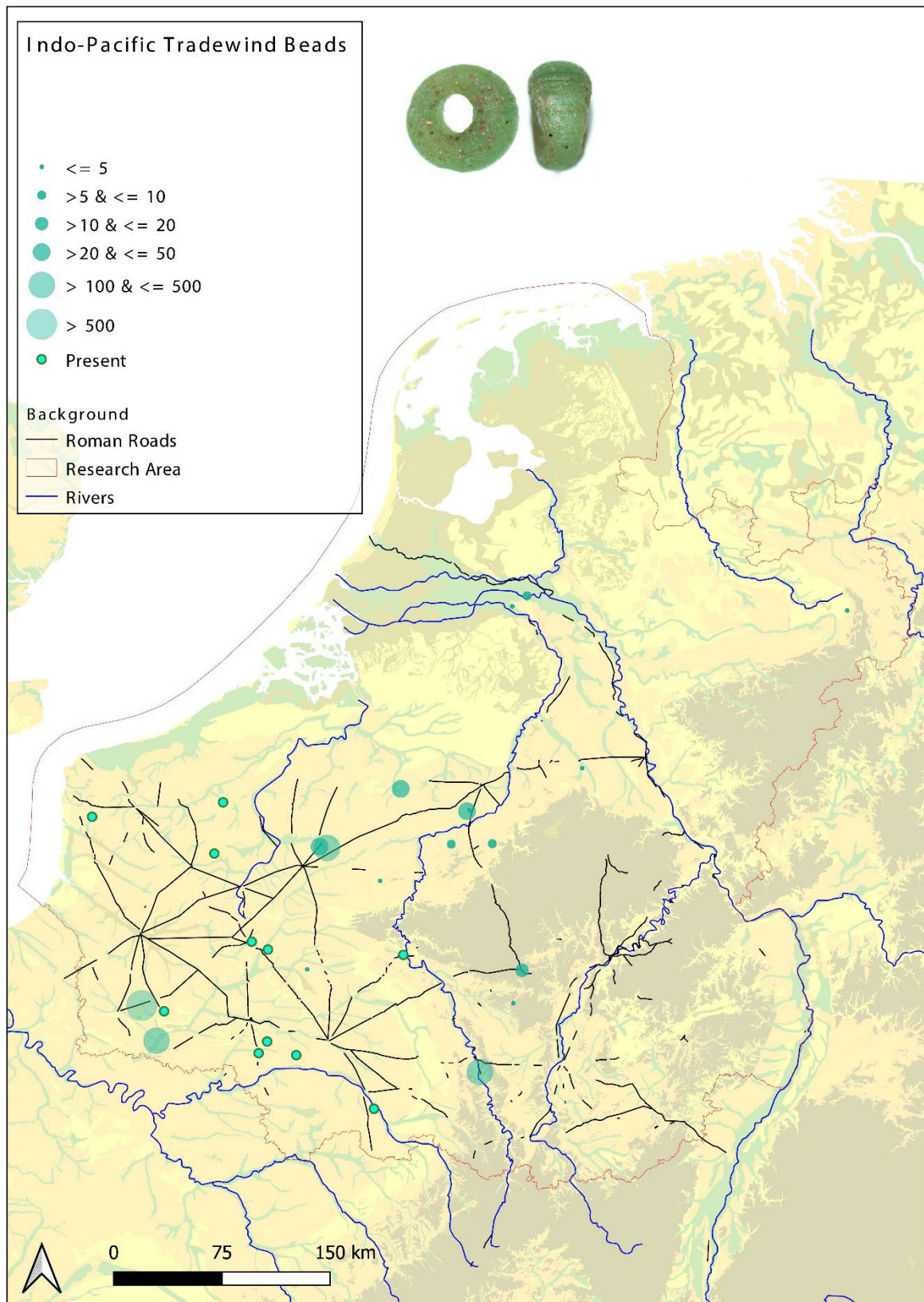


Fig. 2.12 Find locations of Indo-Pacific Tradewind Beads, typical for Bead Period P1 in northern Gaul. Source: www.earlymedieval europe.org (Online Database ERC Rural Riches).

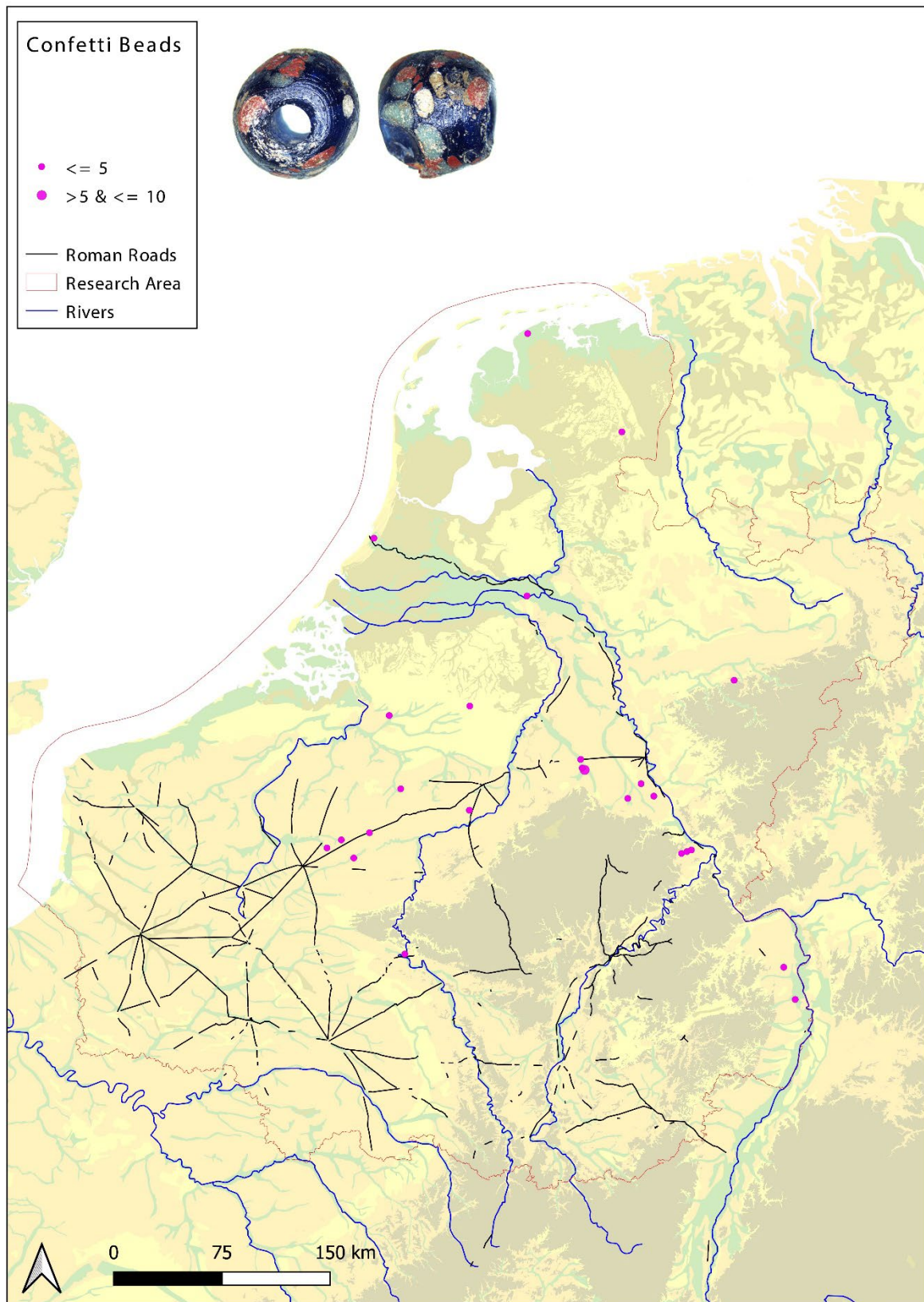


Fig. 2.13 Find locations of 6th-century confetti beads from Egypt, typical for Bead Period P1 in northern Gaul. Source: www.earlymedieval europe.org (Online Database ERC Rural Riches).



Fig. 2.14 Find locations of black annular beads adorned with an opaque white wave decoration, typical for Bead Period P1 in northern Gaul. Source: www.earlymedieval europe.org (Online Database ERC Rural Riches).

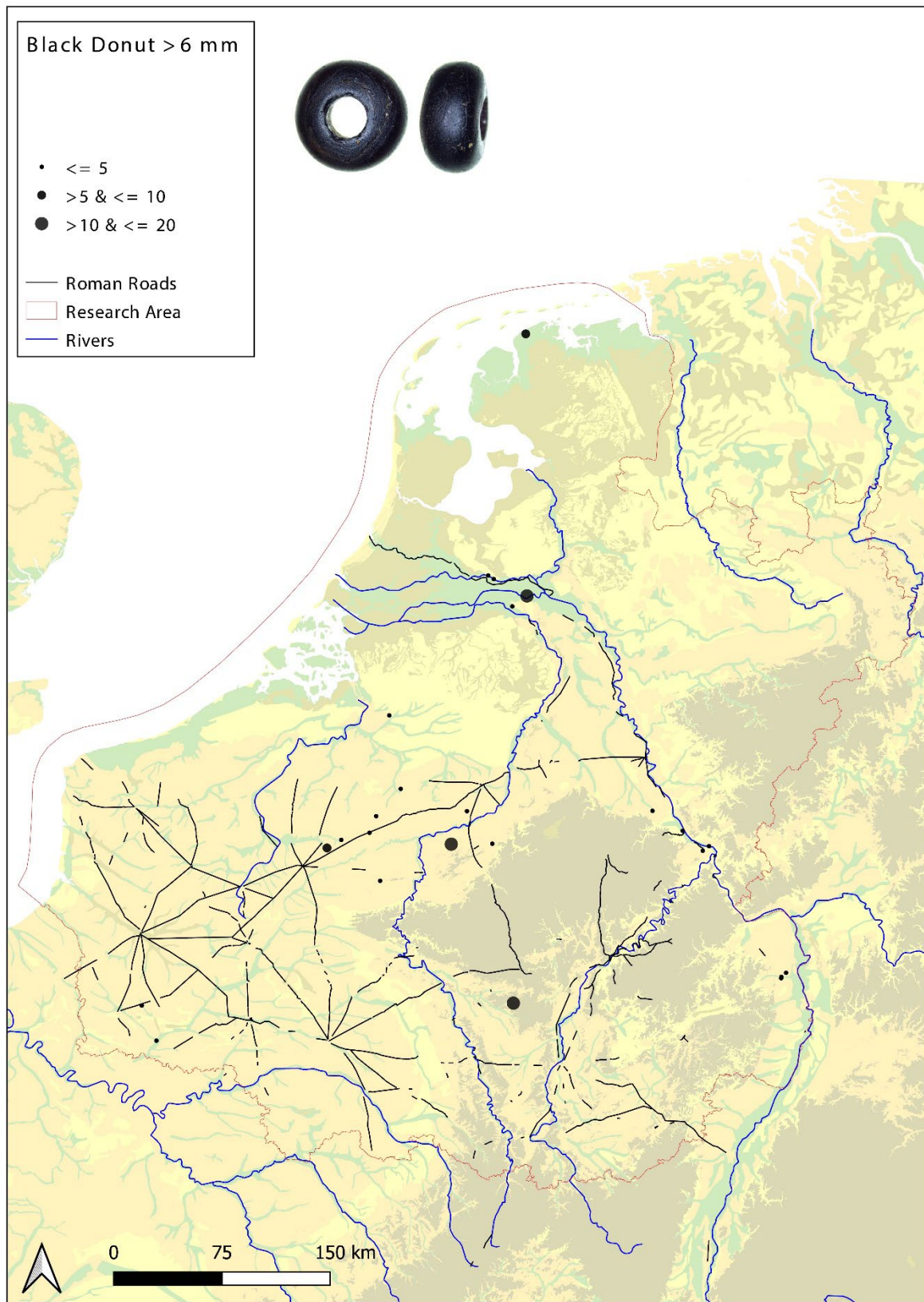


Fig. 2.15 Find locations of black annular beads with a diameter over 6 millimetres, typical for Bead Period P1 in northern Gaul. Source: www.earlymedievaleurope.org (Online Database ERC Rural Riches).



Fig. 2.16 Find locations of large spindlewhorl beads made of translucent glass and decorated with an opaque white combed spiral decoration, thought to have been produced in Cologne, typical for Bead Period P1 in northern Gaul. Source: www.earlymedievaleurope.org (Online Database ERC Rural Riches).

4.2 P1-P2

Definition P1-P2 strings

In total, 691 beads from Lent-Lentseveld, Elst-’t Woud and Wijchen-Centrum belong to (strings of) beads that can be dated to P1-P2 and which were excavated from 13 different graves (table 2.5). In Wijchen-Centrum three graves with beads that could date to either P1 or P2 were excavated, but as these contain only a few beads each they cannot be referred to as proper strings of beads and will therefore not be addressed further in this subsection. In both Lent-Lentseveld (nine graves) as Elst-’t Woud (one grave) complete strings of beads in which both P1 and P2 beads occur were found, without a significant majority towards one or the other. These strings of beads can either date to the overlap of time between P1 and P2, to the earliest phase of P2, or just to P2 in which case they contain a lot of old beads. As with any string of beads, they may also have been interred much later. What is clear is that, due to the presence of P2 beads, these strings cannot be dated to the late fifth century or to the earliest decade of the sixth. Dates assigned to the graves containing these beads may provide more clarity.

Table 2.5 Overview of P1-P2 strings of beads from the cemeteries of Lent-Lentseveld, Elst-’t Woud and Wijchen-Centrum.

Site	amount of graves with beads	average nr of beads per grave	beads examined	beads examined from photograph	total beads studied	total beads found
<i>Lent-Lentseveld</i>	9	72	646	0	646	646
<i>Elst-’t Woud</i>	1	37	37	0	37	37
<i>Wijchen-Centrum</i>	3	3	8	0	8	8
<i>total beads</i>	13	53	691	0	691	691

P1-P2 beads vs grave dates

Most of the graves from Lent in which the P1-P2 strings were found are dated to the period 520-570 CE based on other grave finds. Grave 9 is dated earlier, between 480 and 550 CE based on C14 dating, and graves 13, 34 and 40 are dated more specifically to the period 525-550 CE. For Lent, the P1-P2 date thus seems to be on the mark: it is not unlikely that the majority of the strings was interred in the second quarter of the sixth century. In contrast, Elst grave 208, in which another P1-P2 string was found, is dated to the late sixth or first half of the seventh century according to the excavators. The date is based on a few fragments of ceramic pot found with cremation remains in the fill of the grave pit. The only other datable find found in the grave is a knife with a straight back, which is dated to the cemetery’s phases 3-5, or the sixth century.²⁰⁹ Adding this up, a date in the sixth century is much more likely than a seventh century date. In that case we may be dealing with an older set of beads that was deposited later in the second half of the sixth century. The presence of two wound pentagonal beads (Pion type B1.6, dated to the second half of P2, after 550 CE) does seem to suggest a date in the second half of the sixth century (fig. 2.17).

Description P1-P2 strings Lent, Elst and Wijchen

Much like the P1 strings, the majority of beads in P1-P2 strings is monochrome. The percentage of polychrome beads is slightly higher in comparison though (table 2.2.2.1 in appendix 2.2.2). However,

²⁰⁹ Verwers/Van Tent 2015, 52, 123, 258.

the colours used do show a shift away from imitating precious stones by including many beads in yellow, red and green besides the still popular amber, green-blue, cobalt blue and silver. Many of the polychrome beads are mosaic beads featuring colourful patterns of mosaic eyes, mosaic flowers and mosaic swirls (figs. 2.17 and 2.18). With the exception of those found in Elst grave 208, these have a long hexagonal or cylindrical shape: it has been suggested before that hexagonal mosaic beads may be older than globular mosaic beads,²¹⁰ which may be reflected in their appearance in P1-P2 strings rather than in clear P2 strings. Besides the appearance of mosaic beads, P1-P2 strings contain a majority of wound beads over drawn beads, which is a clear shift away from P1 strings in which these occur in nearly equal parts (table 2.2.2.2 in appendix 2.2.2). Most of these wound beads are yellow, green and red annular beads made of opaque glass, which is reflected by the increasing percentage of opaque beads in table 2.2.2.4 in appendix 2.2.2. P1-P2 strings also contain more perforated and folded beads than P1 strings, but less Roman beads: as time progressed, fewer Roman beads may have been available (table 2.2.2.2 in appendix 2.2.2). Amongst the drawn beads, that still feature a majority of strangled edges, warm cut beads make an appearance, and the percentage of cold cut beads increases in comparison to P1 (table 2.2.2.3 in appendix 2.2.2). Lastly, the larger part of beads in P1-P2 strings is made of glass and a significantly lower percentage in comparison to P1 strings is made of amber (table 2.2.2.5 in appendix 2.2.2)

In grave 40 of Lent a group of very fragile faceted red and orange opaque glass beads of which the manufacturing technique was difficult to establish were found. In the glass, irregular patterns were observed that did not tally with any of the techniques of bead manufacture known to the author (fig. 2.19). Sode, Gratuze and Lankton²¹¹ have described similarly made, but much larger barrel shaped red and orange beads from Scandinavia, that date to the seventh and eighth century. According to them, these beads were somehow shaped around a mandrel, which results in poorly fused seams and irregular lines in the beads: in essence a crude form of perforating glass. It is possible that the red and orange beads from Lent were also made using this method. Exact parallels to the beads from Lent were found in Hungary and are present in the collection of the *Rijksmuseum van Oudheden* in the Netherlands.²¹² Similarly, several large polychrome wound glass beads that do not occur in Pion's typology, but do have parallels in Hungary were excavated from Lent-Lentseveld grave 50 (fig. 2.18).²¹³

Provenances

In terms of provenance beads in P1-P2 strings were mostly made in northwestern Europe itself: in comparison to P1 strings we see a nearly 30 percent increase. Accordingly, amber beads with a provenance in the Baltic or provenances east of Europe decrease significantly (table 2.2.2.6 in appendix 2.2.2). Still, in comparison to P1, P1-P2 strings contain slightly more beads that were produced in India or Mesopotamia. A combination of beads of these various origins can often be found on a single string. The most striking P1-P2 example is perhaps the string of beads buried with the girl of about 5 or 6 years old in Lent-Lentseveld grave 40, that contains beads with provenances as varied and far apart as India, Mesopotamia, Egypt, the Syro-Palestinian coast, the Mediterranean, the Baltic and Northwestern Europe itself (fig. 2.20).

²¹⁰ Volkmann/Theune 2001, 531-534.

²¹¹ Sode/Gratuze/Lankton 2017, 331; Langbroek 2021b, 60.

²¹² Langbroek/Willemsen 2022, 48: RMO, M 1901/11.3

²¹³ Personal observation early medieval bead collection displayed in the Museum of Sopron in September 2019.



Fig. 2.17 Impression of P1-P2 beads (a selection, not all beads) from Elst-'t Woud grave 208. Photographs by M. Langbroek.



Fig. 2.19 Fragile facettred red and orange opaque glass 'mystery beads' from Lent-Lentseveld grave 40. Photographs by M. Langbroek.



Fig. 2.18 P1-P2 strings of beads from the cemetery Lent-Lentseveld. Grave numbers are indicated. Photographs by A. Dekker.

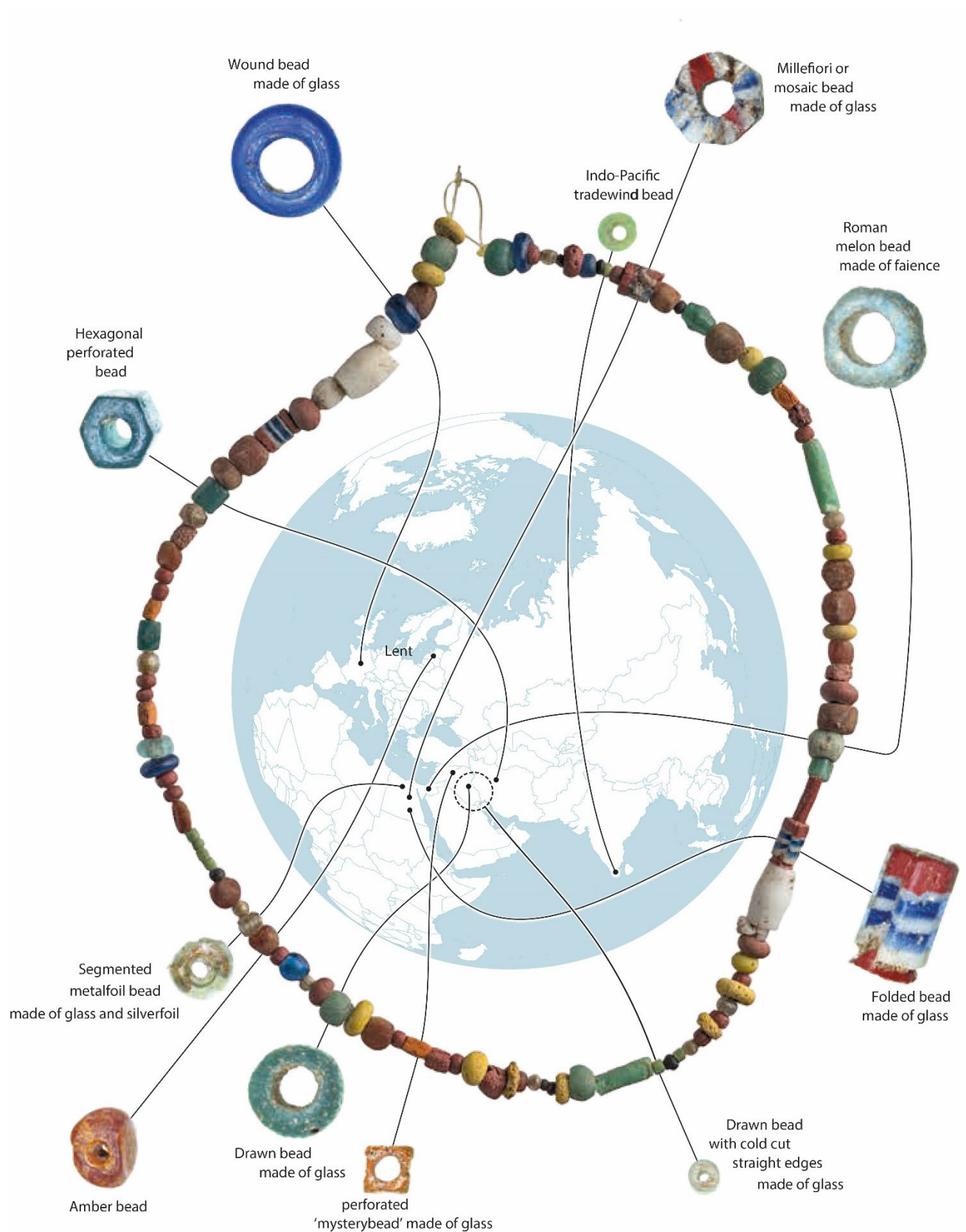


Fig. 2.20. This string of 121 beads of glass, amber and faience was found around the neck of a girl of 5 or 6 years old in grave 40 from the sixth century cemetery of Lent-Lentseveld. The beads in this string were made with varying techniques and have origins in Europe, the Baltic, the Near East, Egypt, the Middle East and India. Photos by: A. Dekker and M. Langbroek. Design by: F. Ruys, Vizualism, in cooperation with J. Hendriks, Gemeente Nijmegen, and Provincie Gelderland.

4.3 P2

Definition P2 Strings

According to Pion's typology strings of beads from graves dating to the middle of the sixth century excavated in Belgium, or P2, share several characteristics. Firstly, a shift away from translucent beads emulating precious stones occurs: while the colour silver remains in use, gold and green-blue disappear mostly and blue and green translucent are less frequently used. Instead, opaque black, yellow and especially red beads become common. Also, wound beads become more common than drawn beads, and mosaic beads, folded beads and perforated beads appear more frequently than before. Many of these new types are polychrome, featuring polychrome twists, mosaic patterns, polychrome ribbons, waves, multicoloured punctuated interlacing, monochrome spirals and monochrome irregular dots. Especially noteworthy are large red opaque wound beads with varying decorative patterns in opaque yellow and white glass. Still, monochrome beads occur more frequently. Typical wound monochrome beads are red, white and yellow opaque pentagonal beads, small red annular beads, and translucent melon beads with ten or more lobes in various colours. Amongst drawn beads those with warm cut edges and strangled edges (red beads with a translucent core, cylindrical opaque yellow beads and rounded black or dark green beads) make an appearance.²¹⁴ Typical examples of P2 strings according to Pion can be seen in fig. 2.21.



Fig. 2.21 Typical P2 strings of beads from Oudoumont, Belgium, grave 171. Photo: Pion 2014.

²¹⁴ Pion 2014, 138-140, 154-155.

P2 beads vs grave dates

In total, 751 beads from Lent-Lentseveld, Elst-’t Woud and Wijchen-Centrum belong to strings of beads that can be dated to P2 were excavated from 21 different graves (table 2.6). There are no real date discrepancies between the bead-date and the grave date in any of the three cemeteries: most of them are dated to the middle of the or ongoing sixth century in their respective publications. However, grave 127 from Elst is dated to the second half of the sixth century rather than the middle, based on a three-zoned garnet-inlaid disc brooch and a biconical pot of Franken AG type D2.²¹⁵ As the strings of beads contain wound beads with a pentagonal shape (Pion type B1.6, dated to the second half of P2, after 550 AD), a date in the second half of the sixth century is not unlikely (fig. 2.22). Wijchen graves 152 and 249 each contain one bead only and are dated to the late sixth and early seventh centuries based on the size and shape of both beads.²¹⁶ This statement does not seem to be based on the actual bead types or on a specific typology but on larger bead trends observed in the cemetery. Both beads are types that are typical for the middle third of the sixth century, not just according to Pion, but according to several bead typologies developed for the Germany and England (a so-called reticella bead with polychrome twists and a large red cylindrical bead with a yellow combed spiral decoration).²¹⁷ Taken all of the above into consideration, all P2 strings of beads from Lent, Elst and Wijchen were probably interred before the last decades of the sixth century, which fits the date-range assigned to P2 by Pion quite well.

Table 2.6 Overview of P2 strings of beads from the cemeteries of Lent-Lentseveld, Elst-’t Woud and Wijchen-Centrum.

Site	amount of graves with beads	average nr of beads per grave	beads examined	beads examined from photograph	total beads studied	total beads found
<i>Lent-Lentseveld</i>	8	44,0	354	0	354	354
<i>Elst-’t Woud</i>	10	39,0	388	0	388	388
<i>Wijchen-Centrum</i>	3	3,0	9	0	9	9
total beads	21	36,0	751	0	751	751

Description P2 strings Lent, Elst and Wijchen

Although the majority of beads in P2 strings from Lent-Lentseveld, Elst-’t Woud and Wijchen-Centrum is monochrome, in comparison to previous periods an increase in polychrome beads can be observed (table 2.2.3.1 in appendix 2.2.3). Wound monochrome beads most often occur in the colours red, yellow or white and are annular or pentagonal in shape, and whilst blue, green-blue and black monochrome wound beads are not entirely absent, they occur less often than before. Wound polychrome beads feature red, yellow and white glass mostly as well, and sport decorative interlacing patterns, (combed) spirals or polychrome twists (‘reticella beads’) and can in some cases be quite large (fig. 2.23). In contrast, most monochrome drawn beads are made of two layers of translucent glass between which a layer of silver foil is sandwiched, and in Elst many cobalt blue perforated beads can be found in P2 strings. Besides these, polychrome beads featuring mosaic flowers, mosaic eyes and mosaic swirls make a regular appearance in the P2 strings from Lent and Elst (figs. 2.22 and 2.24). Much like P1-P2 strings, the majority of beads from P2 strings are wound beads, although drawn beads with strangled ends and cut beads (most of which are made of amber) are by no means a rare occurrence. Also, perforated and mosaic beads are more common in P2 strings than before

²¹⁵ Müsseseimer *et al.* 2003.

²¹⁶ Heeren/Hazenberg 2010, 273 & 320.

²¹⁷ Siegmund 1998; Müsseseimer *et al.* 2003; Koch 1977/2001; Brugmann 2004; Hines/Bayliss 2013.



Fig. 2.22 Impression of beads (a selection, not all beads) occurring in P2 strings from the cemetery Elst-'t Woud. Grave numbers are indicated. Photographs by M. Langbroek.

(table 2.2.3.2 and 2.3.3 in appendix 2.2.3). The increase in wound beads is also reflected by the increase in opaque beads versus translucent beads: wound beads from P2 strings are more often made of opaque glass than not, whereas beads made with other techniques are generally made of translucent glass (table 2.2.3.4 in appendix 2.2.3). As already observed for previous periods, beads made of other materials than glass (79%) or amber (20%) hardly occur amongst P2 strings either (table 2.2.3.5 in appendix 2.2.3).



Fig. 2.23 All P2 beads from Wijchen-Centrum Grave 228. Photographs by M. Langbroek.

Provenances

The provenance of beads from P2 strings from Belgium shows quite a lot of change: in comparison to P1 a decline in beads from the eastern Mediterranean and a rise in beads made in northwestern Europe itself can be observed. This means that P2 strings of beads from Belgium generally feature more wound beads and less drawn beads and amber beads than before, even though these last two are by no means a rare occurrence. Indo-Pacific tradewind beads from India and/or Sri Lanka disappear almost completely after P1, even though garnets from this region keep being imported until the end of the sixth century. New drawn bead-types keep appearing in Belgium until the end of the sixth century though. Polychrome mosaic beads, folded beads with polychrome ribbon decoration and specific types of reticella beads featuring very fine polychrome twists are new 'imports' from Egypt/the Syro-Palestinian Coast as well and may reflect a rising interest in polychrome beads as can also be observed in the many new polychrome wound bead-types made in northwestern Europe itself.²¹⁸

A rather similar proportion of bead provenances can be observed in P2 strings from Lent, Elst and Wijchen: half of the beads has an origin in northwestern Europe itself, thirty percent were made in Egypt or the Syro-Palestinian Coastal region, and as already stated above the remaining twenty percent concerns beads made of amber with a likely provenance in the Baltic Region (table 2.2.3.6 in appendix 2.2.3). As can be observed in the distribution maps for mosaic beads, segmented metalfoil beads and reticella beads below, beads with such varied provenances are found regularly in other cemeteries in northwestern Europe as well (figs. 2.25-2.27). In contrast to the distribution of Indo-Pacific Tradewind beads, that occur mostly in the southwest of the research area (recalling fig. 2.12), mosaic beads and segmented metalfoil beads occur far less often there and are much more prevalent in the rest of northern Gaul. As was suggested above, this may be indicative of different networks of bead exchange, that met one another in the Belgian Meuse valley and along the road from Cologne to Rouen and Amiens. Curiously, reticella beads, which are also thought to have a provenance in the eastern Mediterranean,²¹⁹ do not show the same split in distribution, but pentagonal yellow wound beads, definitely made in northwestern Europe itself, do (fig. 2.28).²²⁰

²¹⁸ Pion 2014, 231-233.

²¹⁹ Pion 2014, 227-228.

²²⁰ Sablerolles *et al.* 1997; Pion 2014, 181.



Fig. 2.24 P2 strings of beads from the cemetery Lent-Lentseveld. Grave numbers are indicated. Photographs by A. Dekker.

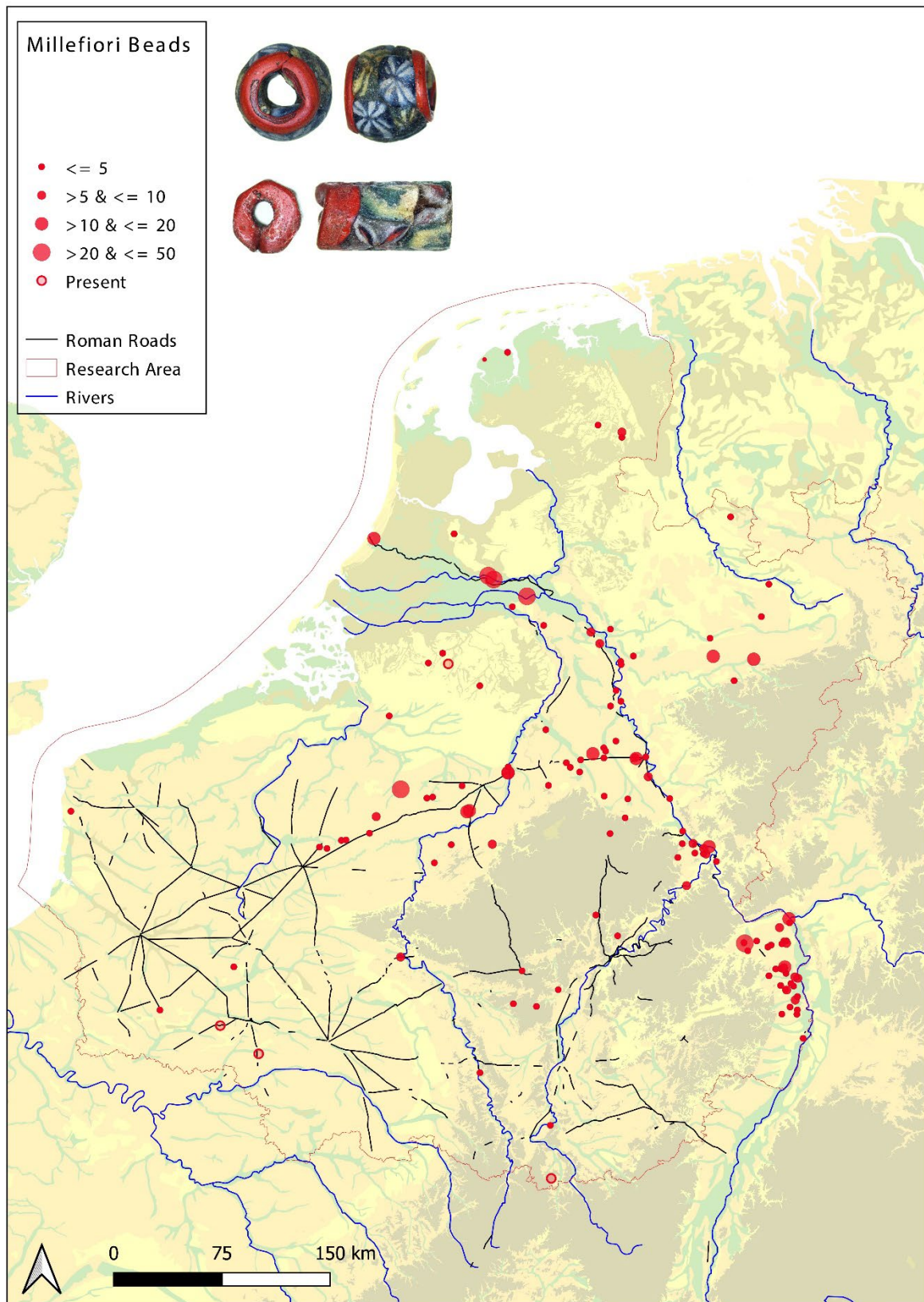


Fig. 2.25 Find locations of mosaic or millefiori beads, thought to have been produced in Egypt, typical for Bead Period P2 in northern Gaul. Source: www.earlymedieval europe.org (Online Database ERC Rural Riches).

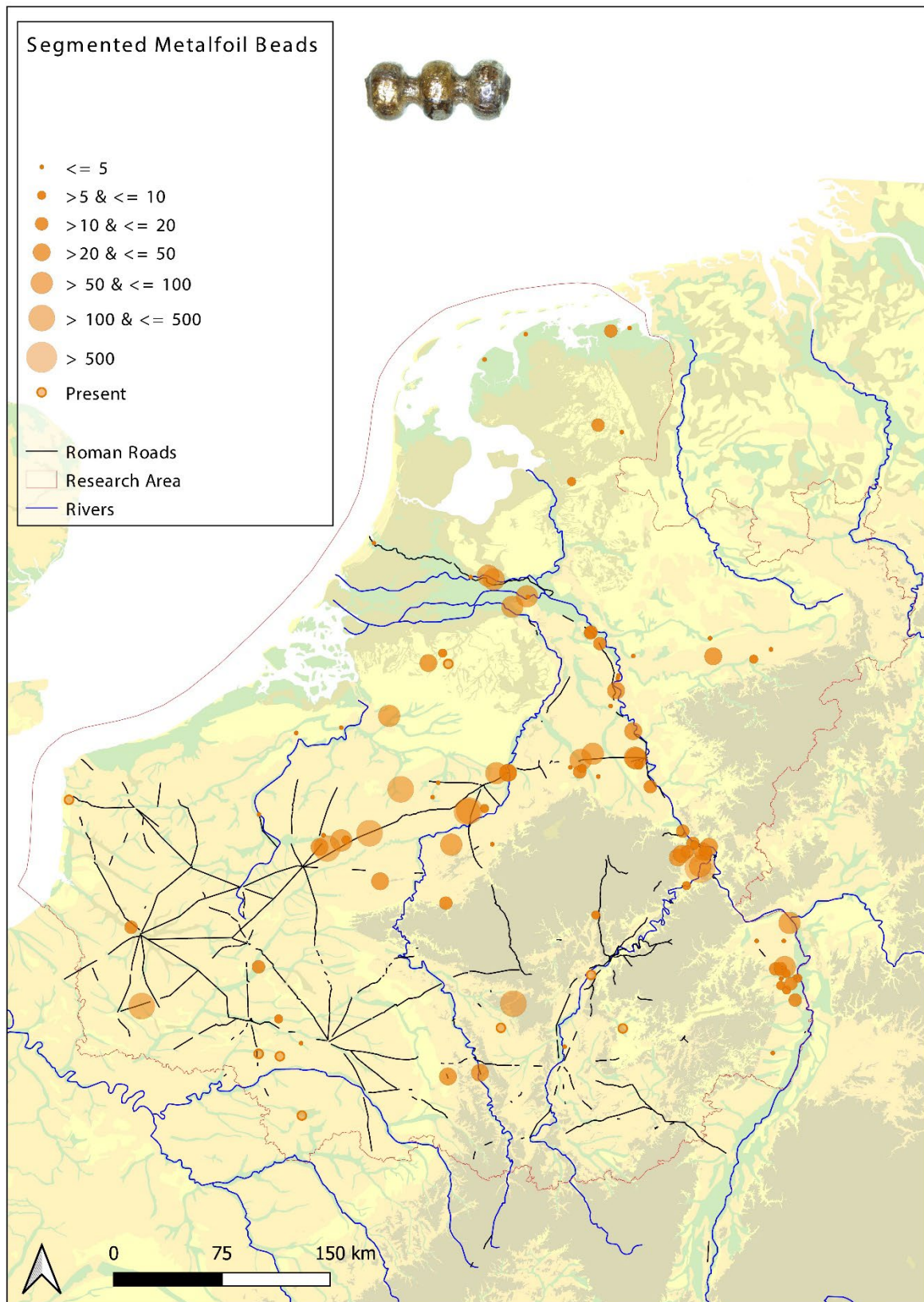


Fig. 2.26 Find locations of segmented metalfoil beads, thought to have been produced in Egypt, typical for Bead Periods P1-P3 in northern Gaul. Source: www.earlymedieval europe.org (Online Database ERC Rural Riches).

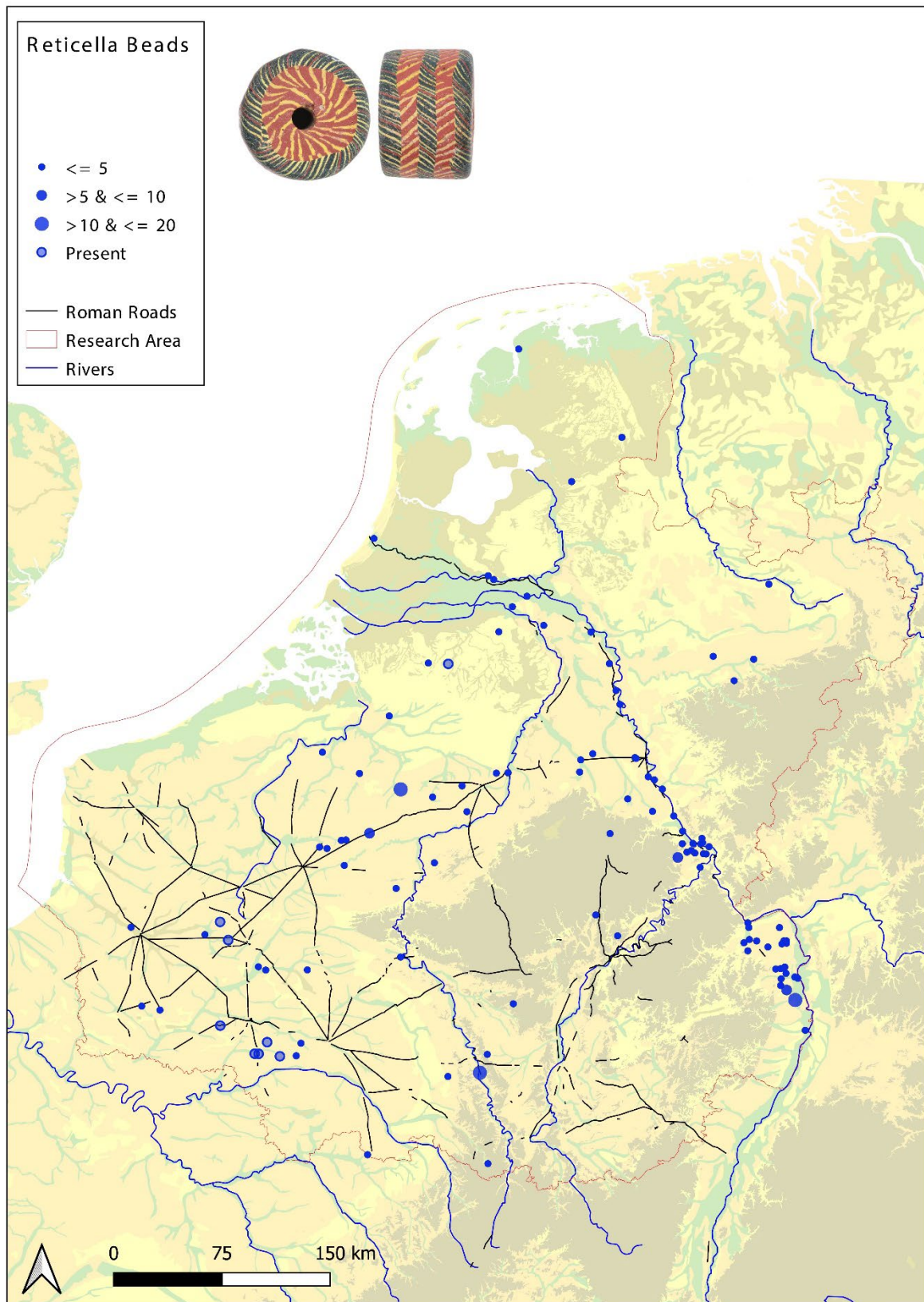


Fig. 2.27 Find locations of reticella beads (or beads decorated with very fine polychrome twists), thought to have been produced in the eastern Mediterranean, typical for Bead Period P2 in northern Gaul. Source: www.earlymedieval europe.org (Online Database ERC Rural Riches).

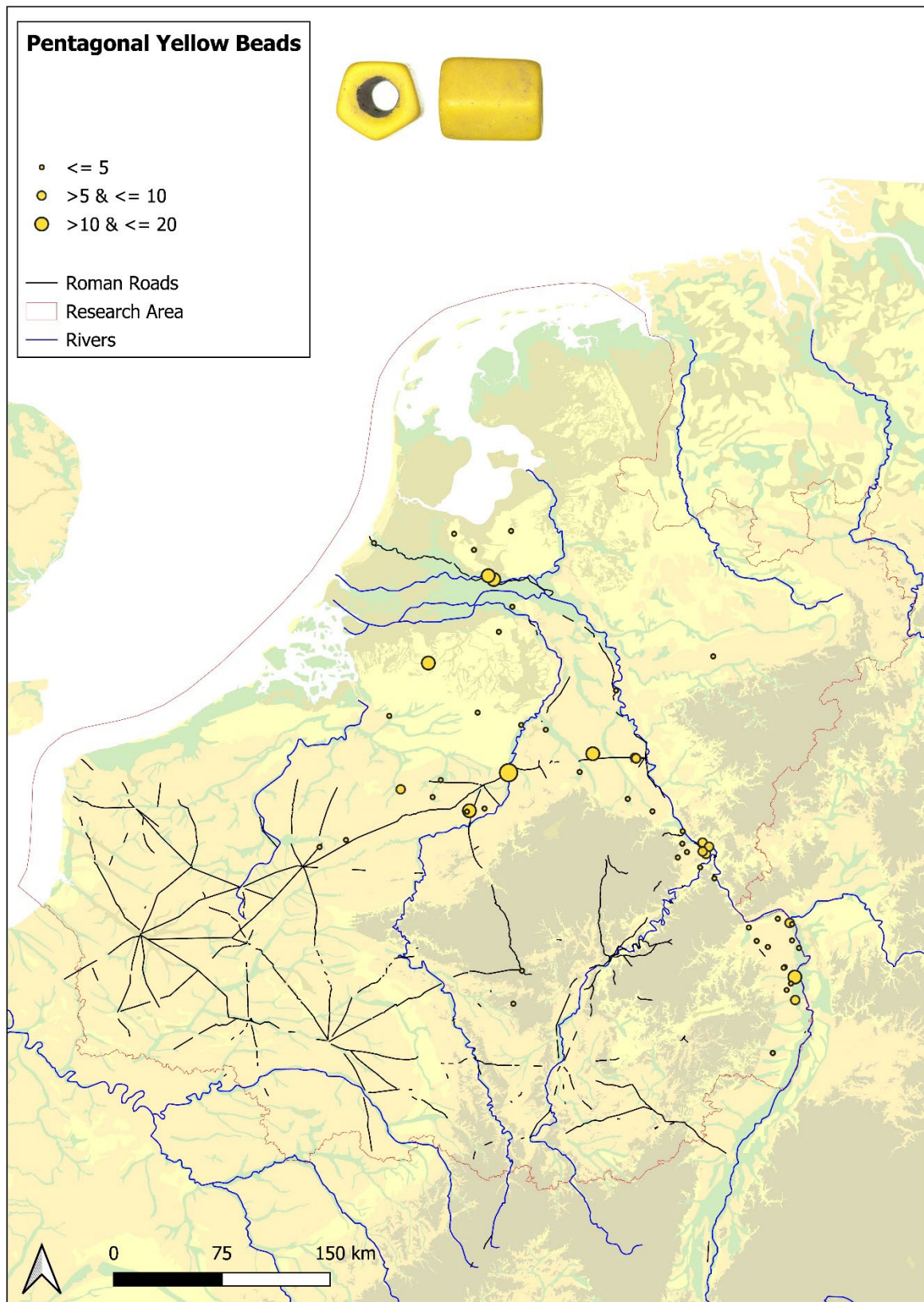


Fig. 2.28 Find locations of yellow opaque pentagonal beads, for which production evidence was excavated in Maastricht, typical for Bead Period P2 in northern Gaul. Source: www.earlymedieval europe.org (Online Database ERC Rural Riches).

4.4 P2-P3

Definition P2-P3 strings

In total, 467 beads from Lent-Lentseveld, Elst-'t Woud and Wijchen-Centrum belong to (strings of) beads that can be dated to P2-P3, which were excavated from 9 different graves (table 2.7). In most of these graves complete strings of beads in which both P2 and P3 beads occur were found, without a significant majority towards one or the other. These strings of beads can either date to the overlap of time between P2 and P3, to the earliest phase of P3, or just to P3 in which case they contain a lot of old beads. As with any string of beads, they may also have been interred much later. What is clear is that, due to the presence of P3 beads, these strings cannot be dated to the first half of the sixth century or before. Dates assigned to the graves containing these beads may provide more clarity.

Table 2.7 Overview of P2-P3 strings of beads from the cemeteries of Lent-Lentseveld, Elst-'t Woud and Wijchen-Centrum.

Site	amount of graves with beads	average nr of beads per grave	beads examined	beads examined from photograph	total beads studied	total beads found
<i>Lent-Lentseveld</i>	1	46,0	46	0	46	46
<i>Elst-'t Woud</i>	3	82,0	245	0	239	245
<i>Wijchen-Centrum</i>	5	35,0	100	56	156	176
total beads	9	51,0	391	56	441	467

P2-P3 beads vs grave dates

Most of the graves in which the P2-P3 strings were found are dated to the second half or last third of the sixth century based on other graves finds (appendix tables 2.1.1, 2.1.2 and 2.1.3). Wijchen 253 is dated a bit earlier, to the period 530-555, based on the find of a buckle (*Niederrhein Gürtel* 2.6/7c, *Phase 4* ²²¹). However, as the string of beads contains both pentagonal, cylindrical and biconical wound beads (typical for late P2 and P3, the second half of the sixth century) (fig. 2.29), a date in the first half of the sixth century seems unlikely. Another outlier is Wijchen grave 127, that is dated more broadly to the period 570-640, based on the decoration of irregular dots on some of the polychrome beads. This statement is not based on a specific typology but on larger bead trends observed in the cemetery. Still, irregular dots appear on beads throughout the early medieval period, not just according to Pion, but also according to several bead typologies developed for the Germany and England. ²²² Taken all of the above into consideration, all P2-P3 strings of beads from Lent, Elst and Wijchen were probably interred before the turn of the sixth to the seventh century, which fits the date-range assigned to P2-P3 by Pion just fine.

Description P2-P3 strings Lent, Elst and Wijchen

P2-P3 strings from Lent, Elst and Wijchen share a lot of characteristics with P2 strings. Not only do these contain similar ratios of monochrome versus polychrome beads (table 2.2.4.1 in appendix 2.2.4), shapes, colours and decoration patterns are very similar too: most beads are annular or pentagonal in shape, the most dominant colours are opaque red, yellow and white and decoration patterns consist mostly of a combination of mosaic eyes and flowers, polychrome twists, (punctuated) interlacing and

²²¹ Siegmund 1998

²²² Siegmund 1998; Müssemeier *et al.* 2003; Koch 1977/2001; Brugmann 2004; Hines/Bayliss 2013.

spirals (figs. 2.29-2.31). In addition, monochrome beads that are cylindrical and biconical in shape appear in P2-P3 strings,²²³ as do wound beads with an irregular dot decoration. Mosaic beads are present only in P2-P3 strings from Elst, generally have a more worn surface than mosaic beads found in P2 strings and do not occur as identical pairs as is often the case in P2 strings either. This may indicate that they may have been worn for a longer period, perhaps even by people from different generations. Unfortunately, the absence of skeletal material prohibits the age determination of the persons buried in the three graves containing P2-P3 strings from Elst, so it is difficult to check this theory.²²⁴ In comparison to P2 strings, less drawn beads are found in P2-P3 strings from Lent, Elst and Wijchen: only two percent remains, whilst the ratio of wound beads has increased to 63 percent (table 2.2.4.2 in appendix 2.2.4). From P1 onwards there seems to be a steady decline in the number of drawn beads and a rise in wound beads. The drawn beads that are still present are finished in the same way as in P2 string: a majority has strangled edges, drawn beads with warm cut ends are present as well, and beads with cold-cut ends are absent (table 2.2.4.3 in appendix 2.2.4). The remaining techniques occur in similar percentages as in P2 strings: although folded and perforated are not as popular as wound beads, they are not uncommon either. The decline in drawn beads is reflected in the ratio of beads made with opaque versus translucent glass as well: in comparison to the previous period, the percentage of opaque beads has increased with twenty percent (table 2.2.4.4 in appendix 2.2.4). Still, the materials used to make the beads in P2-P3 strings remains similar to P2, with about eighty percent made of glass and twenty percent made of amber (table 2.2.4.5 in appendix 2.2.4).

A string that stands out from the other P2-P3 strings is certainly the string of beads from Lent-Lentseveld grave 51 (fig. 2.30). It contains many very large beads without many parallels in Northern Gaul in both glass and amber and also features a cylindrical black opaque Roman bead with a light yellow combed spiral decoration. Some of the large glass beads are similar to those found in Lent-Lentseveld grave 50, for which some parallels are known from Hungary. The three large amber beads are much more deliberately shaped than most other amber beads found in Lent, Elst and Wijchen, and all have a surface with rather shiny patches in some places, suggesting they had been worn before being interred.²²⁵ The presence of so many uncommon beads makes this string especially difficult to date. However, several short cylindrical beads and two beads with a decoration of rather thick polychrome twists (unlike the very fine polychrome twists used to decorate so-called reticella beads) do seem to suggest a date in the second half of the sixth century. This particular string of beads really is, by lack of a better phrase, *the odd one out*: I do not understand its composition, its significance or its presence in Lent-Lentseveld, which will remain so until parallels are found elsewhere.

²²³ Shapes typical for P3 (Pion 2014, 140-141).

²²⁴ Of course this would only be applicable if one was indeed buried with one's 'personal' string of beads.

²²⁵ As amber is much softer than glass, use-wear marks appear on the surface of amber beads much quicker, which makes it difficult to estimate whether these beads were worn for a short or long period before being interred. However, the large glass beads in this string also feature many crescent shaped marks (so-called Hertzian cones), suggesting they had been worn over a rather long period of time. If this string of beads was a so-called 'integer' string, that was not supposed to be taken apart after assembly, the amber beads may have been worn for the same amount of time as the glass beads. Nonetheless, at first glance this string of beads seems to be a random collection of large and small, older and younger beads. Still, on closer inspection, it mostly features pairs of near-identical beads in terms of material, shape, colour and decoration that were almost certainly strung in a symmetrical manner, with the largest amber bead as central piece. Perhaps this symmetry can be used to argue for the integrity of the string, even when not all the beads were made and/or acquired at the same time.

Provenances

With the large decline in drawn beads and the rise in wound beads amongst P2-P3 strings in comparison to previous periods, it is not a surprise that the percentage of beads from Egypt and/or the Syro-Palestinian Coast has dropped to 14 percent, and the percentage of European beads has risen to 63 percent. The number of amber beads from the Baltic remains stable at 22 percent (table 22.4.6 in appendix 2.2.4). The trend towards more and more European beads towards the end of the sixth century, as was already observed by Pion for beads from Belgium cemeteries,²²⁶ is thus also reflected in P2-P3 strings of beads from Lent, Elst and Wijchen. Still, beads with these varying provenances are often found the same grave, on the same string. The ratio of provenances is just more in favour of European made beads: they had perhaps become easier available in the second half of the sixth century, whereas beads from regions southeast of Europe may have become harder to come by. This shift coincides with the increase of evidence for bead-production in northwestern Europe itself in the late sixth and first half of the seventh century.²²⁷



Fig. 2.29 P2-P3 strings of beads from the cemetery Wijchen-Centrum. Grave numbers are indicated. Photographs by M. Langbroek (65, 127, 253) and R. Mols (171).

²²⁶ Pion 2014, 230-235.

²²⁷ Pion 2014, 180-188; Sablerolles *et al.* 1997; Dijkstra *et al.* 2010



Fig. 2.30 P2-P3 string of beads from grave 51 of the cemetery Lent-Lentseveld. Photograph by A. Dekker.



Fig. 2.31 Impression of beads (a selection, not all beads) occurring in P2-P3 strings from the cemetery Elst-'t Woud. Grave numbers are indicated. Photographs by M. Langbroek.

4.5 P3

Definition P3 Strings

According to Pion's typology strings of beads from Merovingian graves excavated in Belgium dating to P3, or the late sixth century, share several characteristics. Most bead-types that can be specifically dated to P3 are wound beads, that make up the majority of beads found in this period. Typical monochrome wound P3 beads are short cylindrical, double-annular or biconical in shape. Also, a new colour appears: some of these new types are made out of light blue opaque glass. Still, wound beads are made predominantly of yellow, red and white opaque glass. These colours are also present in the large diversity of polychrome beads that date to P3, that feature white, red, green or blue (punctuated) interlacing on red, yellow or white opaque base beads, spiral decoration in white, red or green on red or yellow annular, globular or barrel shaped base beads, polychrome ribbon decoration on red opaque base beads, or spiral and punctuated interlacing decoration on yellow and red opaque beads that are shaped like coin-pendants. As this large diversity suggests, polychrome beads make up a larger percentage of P3 strings of beads than they did during earlier periods. Regardless, polychrome mosaic beads and beads featuring polychrome twist decorations (reticella beads) have mostly disappeared from P3 strings. Folded and perforated beads can still be found amongst P3 strings, even though no new types are introduced in this period. Some new drawn bead types do appear though: small green translucent beads with cold cut edges are typical for P3, as are cylindrical blue-green or green-blue beads and rounded white and black drawn beads with strangled edges. Although they do still appear occasionally, silver segmented metalfoil beads are not as prevalent as they were in previous periods, and neither are amber beads.²²⁸ Typical P3 strings according to Pion can be seen in fig. 2.32.



Fig. 2.32 Typical P3 strings of beads from Oudoumont, Belgium, grave 305. Photo: Pion 2014.

²²⁸ Pion 2014, 140-141, 155.

P3 beads vs grave dates

In total, 463 beads from Elst-’t Woud and Wijchen-Centrum belong to strings of beads that can be dated to P3 were excavated from thirteen different graves (table 2.8). No P3 strings were excavated in Lent-Lentseveld, nor were any of later date. For six graves there are some slight date discrepancies²²⁹ between the bead-date and the grave date in the two cemeteries, but the remaining seven are dated to the late sixth century (appendix tables 2.1.2 and 2.1.3).

Table 2.8 Overview of P3 strings of beads from the cemeteries of Elst-’t Woud and Wijchen-Centrum.

Site	amount of graves with beads	average nr of beads per grave	beads examined	beads examined from photograph	total beads studied	total beads found
<i>Elst-’t Woud</i>	5	79,0	397	0	397	397
<i>Wijchen-Centrum</i>	8	9,0	66	0	66	66
<i>total beads</i>	13	36,0	463	0	463	463

Two graves from Elst, grave 81 and grave 193, are dated to the ongoing seventh century, based on ceramic pots that were excavated from these graves. For grave 81 the authors admit that, had they used the FAG typology instead of the one developed for the Niederrhein by Frank Siegmund, the pot (Wwt 2.1) could be given an earlier date.²³⁰ The biconical pot from grave 193 is classified as FAG type D4²³¹, that dates to the ongoing seventh century. In contrast, I would have classified it as a FAG D3, a type that dates to the late sixth or early seventh century.²³² Furthermore, other graves from Elst in which D4 pots were found are dated to a range starting from the late sixth century onwards, based on other accompanying finds.²³³ Taking these points into consideration, both graves may be of late sixth century date as well. It would certainly fit the beads found better. Grave 249 from Elst, in which a staggering amount of 225 beads were found, is dated to the middle of the sixth century based on the find of an S-fibula. The grave also contained a much older bow fibula that dates to the fourth or fifth century. Amongst the beads, of which the vast majority can be specifically dated to P3, older beads can be found as well: some rather worn reticella and millefiori beads and even a Roman melon bead (fig. 2.33). Possibly, the S-fibula can be interpreted as an older piece as well: the authors state that the precious stones that once must have adorned it are missing. The fact that S-fibulae normally occur in pairs may also support this theory.

Graves 9, 132 and 230 from Wijchen are also dated to the middle third of the sixth century. Grave 9 was cut by grave 304, which is dated to the late sixth and early seventh century based on the fact that one of the three beads excavated from it ‘has two colours’. The authors state that the grave fills were undistinguishable from one another. Also, the beads found in grave 9 were excavated from the part of the grave that was cut by grave 304. The two beads from grave 9 and the three beads found in grave 304 all date to P3, and are of identical or similar types: they may all have been part of a single string deposited in grave 9, 304 or a different grave altogether.²³⁴ Grave 132 was dated to the period

²²⁹ Which means that they are dated in the periods that abut P3: the middle sixth (P2) or the first half of the seventh century (P4).

²³⁰ Verwers/Van Tent 2015, 31.

²³¹ Müssemeier *et al.* 2003.

²³² Verwers/Van Tent 2015, 26.

²³³ Verwers/Van Tent 2015, 32.

²³⁴ Heeren/Hazenberg 2010, 192, 345, 365.

530-555 based on a buckle of Niederrhein type 2,4/5a²³⁵ which was found in the fill of grave 120, that dates to the seventh century and cuts grave 132. The authors presume it was originally deposited in grave 132, and continue to date it accordingly.²³⁶ By the same reasoning, as grave 120 cuts right through the concentration of beads found in grave 132, one would expect to find these in the fill of grave 120 as well, which is not the case.²³⁷ Adding the observation that the bead types found in grave 132 have so far never been found in graves dating to the second quarter of the sixth century, a date in the second half of the sixth century seems more likely. That leaves grave 230, which was dated to the middle third of the sixth century based on bottom half of a biconical pot.²³⁸ As the determining factor for typing biconical pots sits in the shape of the shoulder and the width of the rim in comparison to the pot's height, using it as a marker for this grave's date seems a bit far-fetched. Taken all of the above into consideration, all P3 strings of beads from Elst and Wijchen were probably interred before the first decades of the seventh century had passed, which fits the date-range assigned to P3 by Pion.

Description P3 strings Elst and Wijchen

As was also noticed for P2-P3 strings, the main colours used in beads from P3 strings in Elst and Wijchen are yellow, red, white and popular bead shapes are cylindrical, biconical, annular and double-annular (figs. 2.33 and 2.34). Biconical beads are especially prevalent, not just in Belgium or the Netherlands, but in many cemeteries in northern Gaul (fig. 2.35) As in Belgium, beads made with light blue opaque glass also appear regularly. Other colours (green, black and silver) are virtually absent. Due to the use of decoration on many of the beads, strings of beads still have a very diverse 'look': (combed) spirals, (punctuated) interlacing, and irregular dots are used on a variety of typical P3 shapes and with many colour-combinations. Still, despite the increase in polychrome beads, the general appearance of strings is less diverse than before, unless they are accompanied by beads that were made in previous periods, as is the case for most P3 strings from Elst, but not at all in Wijchen (figs. 2.33 and 2.34).

In strings of beads from Elst and Wijchen that can be ascribed to P3 the trends that were observed for previous periods continue. For example, the ratio of polychrome beads has risen once again, this time to twenty-five percent (table 2.2.5.1 in appendix 2.2.5), as has the proportion of wound beads, to eighty-four percent (table 2.2.5.2 in appendix 2.2.5). The other bead-making techniques, including those used to make beads out of amber, have become less prevalent, although folded and/or perforated beads were excavated from nearly every P3 grave in Elst (fig. 2.33). Especially drawn beads are almost completely absent, in contrast to P3 beads from Belgium, no new drawn beads types are observed amongst P3 strings from Elst or Wijchen.²³⁹ The one example that is left originally had strangled edges, which have not been preserved, suggesting it had been circulating for a while before being deposited (table 2.2.5.3 in appendix 2.2.5). As in previous periods for which a dominance in wound beads was noticed, the vast majority of beads were made with opaque glass: only nine percent of beads amongst P3 bead sets is translucent (table 2.2.5.4 in appendix 2.2.5). Lastly, the trend towards a larger percentage of beads made of glass continues as well: by P3, a staggering 94 percent of the excavated beads were made with glass, and the proportion of amber beads had dwindled to six percent (table 2.2.5.6 in appendix 2.2.5).

²³⁵ Siegmund 1998.

²³⁶ Heeren/Hazenbergh 2010, 261-262.

²³⁷ Heeren/Hazenbergh 2010, 420.

²³⁸ Heeren/Hazenbergh 2010, 310, 463.

²³⁹ However, as we will see these do occur in P3-P4 and P4 strings.

Provenances

The provenance of beads from P3 strings from Belgium continues the same trend as was observed for the previous period: a further decline in beads from the eastern Mediterranean and a rise in beads made in northwestern Europe itself. This means that P3 strings of beads from Belgium generally feature more wound beads and less drawn beads, mosaic beads, perforated beads and folded beads than before, becoming more and more rare. Still, in Belgium several new drawn bead-types from Egypt or the Syro-Palestinian Coast do appear in P3 strings, which can thereafter still be found in strings of beads dating to P4.²⁴⁰ Besides a dwindling in glass beads made outside of Europe, a significant decrease in the use of amber beads, and thus presumably imports of raw amber from the Baltic, was observed for P3 as well. Likewise, beads from P3 strings from Elst and Wijchen are mostly produced in northwestern Europe, with much fewer beads being imported from Egypt and/or the Syro-Palestinian Coast and the Baltic (table 2.2.5.6 in appendix 2.2.5).



Fig. 2.33 Impression of beads (a selection, not all beads) occurring in P3 strings from the cemetery Elst-'t Woud. Grave numbers are indicated. Photographs by M. Langbroek.

²⁴⁰ Pion 2014, 231-233.

1 cm

104

132

134

230

Fig. 2.34 P3 strings of beads from the cemetery Wijchen-Centrum. Grave numbers are indicated. Photographs by M. Langbroek.

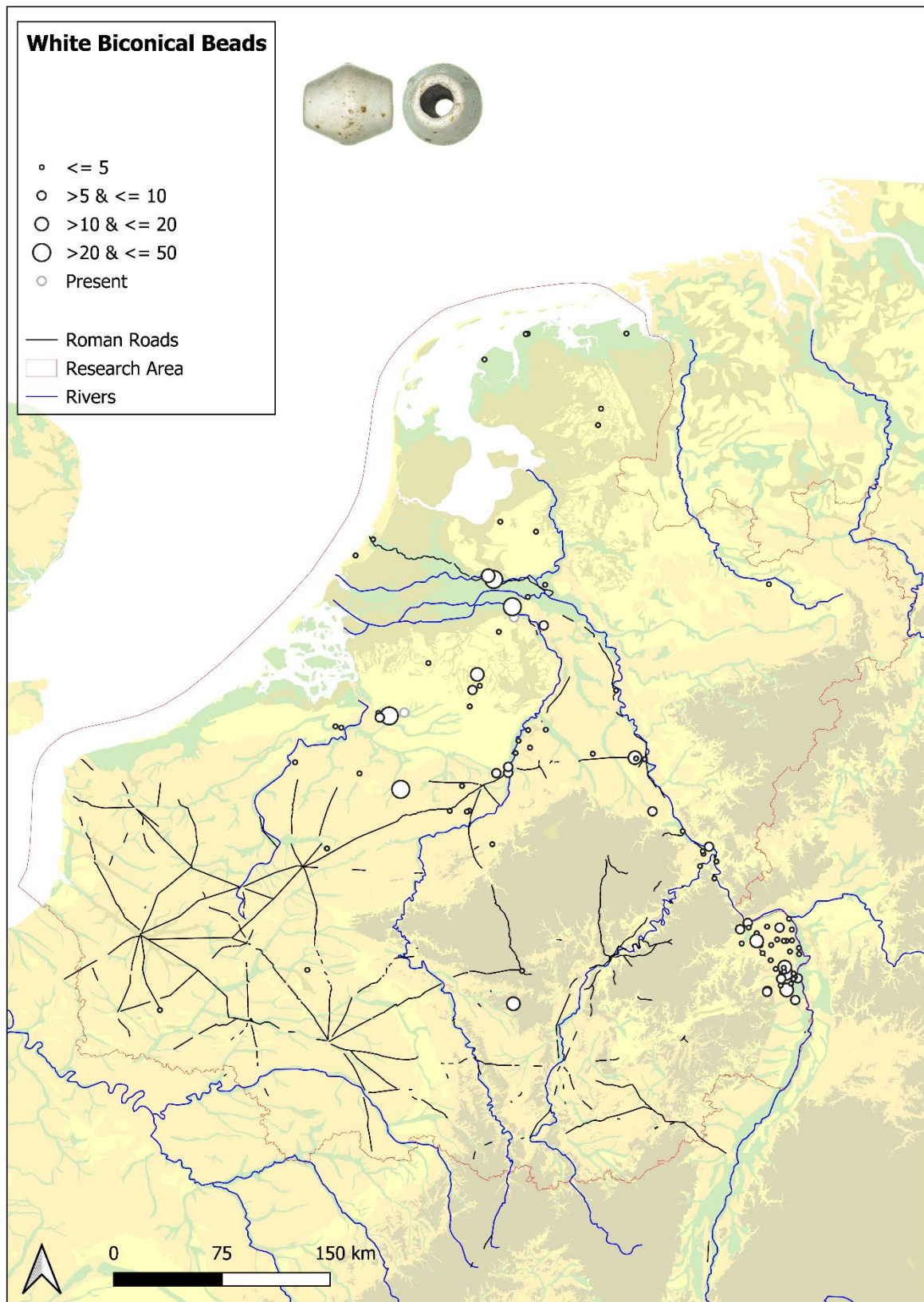


Fig. 2.35 Find locations of white opaque biconical beads, typical for Bead Period P3 in northern Gaul. Source: www.earlymedieval europe.org (Online Database ERC Rural Riches).

4.6 P3-P4

Definition P3-P4 strings

In total, 211 beads from Elst-'t Woud and Wijchen-Centrum belong to (strings of) beads that can be dated to P3-P4, which were excavated from seven different graves (table 2.9). In most of these graves complete strings of beads in which both P3 and P4 beads occur were found, without a significant majority towards one or the other. These strings of beads can either date to the overlap of time between P3 and P4, to the earliest phase of P4, or just to P4 in which case they contain a lot of old beads. As with any string of beads, they may also have been interred much later. What is clear is that, due to the presence of P4 beads, these strings cannot be dated to the third quarter of the sixth century or before. Dates assigned to the graves containing these beads may provide more clarity.

Table 2.9 Overview of P3-P4 strings of beads from the cemeteries of Elst-'t Woud and Wijchen-Centrum.

Site	amount of graves with beads	average nr of beads per grave	beads examined	beads examined from photograph	total beads studied	total beads found
<i>Elst-'t Woud</i>	2	23,0	45	0	45	45
<i>Wijchen-Centrum</i>	5	33,0	53	113	144	166
total beads	7	30,0	98	113	189	211

P3-P4 beads vs grave dates

Six out of the seven graves with P3-P4 beads are dated to the decades around 600 CE, and never later than 640 CE (Appendix tables 2.1.2 and 2.1.3). Only Wijchen grave 49 is dated a bit early, to the period 450-570 CE, based on the fact that it was cut by graves 36 and grave 316, which cannot be dated due to a lack of datable grave goods. Graves 36 and 316 were in turn cut by other graves, that were not dated based on grave finds either. The authors therefore class the date assigned to grave 49 as uncertain.²⁴¹ The only thing remaining to date the grave are the five beads from grave 49 themselves, which is admittedly not much to go by either, but which are all typical occurrences in both P3 and P4 strings. Taken all of this into consideration, all P3-P4 strings of beads from Elst and Wijchen were probably interred before the first third of the seventh century had passed, which fits the date-range assigned to P3-P4 by Pion just fine.

Description P3-P4 strings Lent, Elst and Wijchen

In comparison to the previous period, less than half the amount of beads were excavated from Elst and Wijchen for the period P3-P4. Also, on average fewer beads per grave were found (table 2.9). This limited number of beads may make their representation for the P3-P4 period less accurate. Adding to this, the P3-P4 strings from Elst and Wijchen, whilst containing some identical bead-types, have rather different 'looks' (figs. 2.36 and 2.37): whilst those from Elst contain a majority of white, red and yellow beads that are cylindrical or multi-segmented in shape, those excavated in Wijchen contain a majority of orange opaque, blue-green translucent and green translucent beads that are mostly barrel-shaped or annular. Orange opaque appears as a new colour for wound beads in the early seventh century.²⁴² In contrast, the many small green translucent beads found in Wijchen are identical to the small green

²⁴¹ Heeren/Hazenberg 2010, 215-216, 384.

²⁴² Pion 2014, 142.

drawn beads with cold-cut edges that are described by Pion as typical for P3.²⁴³ In P3-P4 sets from both Wijchen and Elst large amber beads can be found, which are again typical for the seventh century.²⁴⁴ In comparison to P3, the percentage of polychrome beads has declined to seventeen percent (table 2.2.6.1 in appendix 2.2.6). Still, the decoration patterns present are as diverse as before, featuring (punctuated) interlacing, spirals and (ir)regular dots in various colour combinations. The many small green drawn beads found in P3-P4 strings in Wijchen and the many amber beads found in Wijchen grave 34 cause the percentage of drawn and cut beads to rise again to respectively 11 and 20 percent (table 2.2.6.2 in appendix 2.2.6). As nearly no other drawn bead-types appear in P3-P4 strings, the focus of finishing techniques has switched from a majority of strangled to a majority of cold-cut edges that were rounded with a hot finish (table 2.2.6.3 in appendix 2.2.6). With the rise in drawn beads, the percentage of translucent beads also rises to 29 percent in comparison to nine percent in P3 strings (table 2.2.6.4 in appendix 2.2.6). In terms of materials, the vast majority of beads is still made of glass, and the remainder of amber (table 2.2.6.5 in appendix 2.2.6). The larger variety of bead-materials, as observed for P1 and P2 has clearly disappeared. In terms of actual percentages there is not much difference between the periods discussed so far though: beads made of materials other than glass or amber generally only appear as one or two examples.

Provenances

In comparison to P3, the provenances of beads in P3-P4 strings are both similar and very different. The majority of beads still has a provenance in Europe, and the percentage of beads from Egypt/the Syro-Palestinian coast remains low, yet more amber beads with a presumed provenance in the Baltic are present and a significant increase in beads from Mesopotamia²⁴⁵ can be observed (table 2.2.6.6 in appendix 2.2.6). The latter two trends are caused entirely by beads excavated in Wijchen: P3-P4 beads from Elst are remarkably similar in provenance as those from P3.



Fig. 2.37 Impression of beads occurring in P3-P4 strings from the cemetery Elst-’t Woud. Grave numbers are indicated. Photographs by M. Langbroek.

²⁴³ Pion 2014, 140-141, 217. Identical beads were also excavated from Sittard-Kemperkoul and Obbicht-Oude Molen in graves dating to the late sixth or early seventh century (Kars/Theuws/De Haas 2016).

²⁴⁴ Pion 2014, 142.

²⁴⁵ Chemical analyses of these types of beads from Belgian and Russian cemeteries have shown that they are made of halophytic plant-ash glass and were probably made in the region of present-day Iran and Iraq (Pion 2014, 215-219; Gratuze 2014; Roumiantseva 2007, 2-3).



Fig. 2.36 P3-P4 strings of beads from the cemetery Wijchen-Centrum. Grave numbers are indicated. Photographs by M. Langbroek (98, 106) and R. Mols (34).

4.7 Into the seventh century: P4

Definition P4 Strings

According to Pion's typology strings of beads from Merovingian graves excavated in Belgium dating to P4, or the early seventh century, share several characteristics. Firstly, P4 beads continue the tendencies that started to develop from the middle of the sixth century onwards: a further decline in beads with a provenance in Egypt/the Syro-Palestinian coast or further east to the point where no new drawn, folded, perforated or mosaic bead-types can be found in P4 strings and an increase of wound beads made in northwestern Europe itself, of which a large percentage are polychrome. Some of the drawn beads that came into Europe during the late sixth century can still be found in small quantities amongst P4 strings though. All new bead-types in P4 strings are wound beads, that are often multi-segmented and can be either polychrome or monochrome. Polychrome P4 beads are generally red or white opaque in colour with (punctuated) interlacing or spiral decoration. Generally decorative patterns are less diverse than those found on P3 strings. Typical polychrome P4 bead-types are translucent beads completely covered in opaque décor and large red beads with a bichrome or trichrome decoration in white, yellow and/or blue/blue-green glass. Monochrome P4 beads are most often red, yellow or white opaque in colour, although blue, blue-green, dark green and light green (either opaque or translucent) also appear regularly as multi-segmented annular or double-cylindrical beads. Besides these, the orange opaque barrel shaped bead is a new bead-type that occurs more and more often from P4 onwards. Amber beads are scarce amongst P4 strings, but when they occur, they are generally large and long, as was already observed in the P3-P4 strings described above. Lastly, beads made of amethyst are a new appearance in P4 strings of beads (fig. 2.41).²⁴⁶ Typical examples of P4 strings of beads according to Pion can be seen in fig. 2.38.



Fig. 2.38 Typical P4 strings of beads from Bossut-Gottechain, Belgium, grave 434. Photo by L. Baty © SPW---Dpat, taken from Pion 2014.

²⁴⁶ Pion 2014, 142, 155-156.

P4 beads vs grave dates

In total, 297 beads from Elst-’t Woud and Wijchen-Centrum belong to strings of beads that can be dated to P4 were excavated from 15 different graves (table 2.10). No P4 strings were excavated in Lent-Lentseveld, nor were any of later date. 13 of the graves with P4 beads are dated somewhere between the last decade before 600 CE and the first four decades of the seventh century. Only one of the graves is dated later than 650 CE, and contains just a single bead, which is admittedly not much information to base a date in P4 on (Appendix 2 tables 2.1.2 and 2.1.3). Wijchen grave 59 is the only grave that is dated much earlier, to the middle third of the sixth century. This date is based on the fact that it has been cut by grave 60, which dates to the cemetery’s phase 4 (570-640 CE) based on the find of a buckle of Niederrhein type *Gürtel 8b*.²⁴⁷ Grave 59 only contains two beads, one of which is a Roman melon bead, and the other a wound polychrome type (B3.2-01c) that can be dated specifically to P4. Very similar beads (B3.2-01b) can be dated to P3 as well, but not much earlier. Adding this all up, a date in the second half of the sixth century is possible as well: two beads are too few to reliably date a grave with. Summarising the above, it is likely that most P4 strings of beads from Elst and Wijchen were interred between the last decade of the sixth century and 640 CE, which fits the date-range assigned to P4 by Pion perfectly.

Table 2.10 Overview of P4 strings of beads from the cemeteries of Elst-’t Woud and Wijchen-Centrum.

Site	amount of graves with beads	average nr of beads per grave	beads examined	beads examined from photograph	total beads studied	total beads found
<i>Elst-’t Woud</i>	5	13,0	63	4	67	67
<i>Wijchen-Centrum</i>	10	23,0	48	182	230	230
total beads	15	20,0	111	186	297	297

Description P4 strings Lent, Elst and Wijchen

In contrast to P4 strings from Belgium, those excavated from Wijchen and Elst contain significantly less polychrome beads: only six percent of the beads are polychrome, which is a significant drop compared to the 25 percent of polychrome beads amongst P3 strings (table 2.2.7.1 in appendix 2.2.7). Still, the colours and shapes observed do match those described for Belgian P4 strings, with the appearance of orange opaque and green-blue/blue-green translucent beads besides the still popular red, white and yellow colours in multi-segmented, biconical, barrel shaped, annular or cylindrical beads. When polychrome beads do occur, they feature interlacing or spiral decoration patterns (figs. 2.39 and 2.40). Only two percent of P4 beads from Elst and Wijchen are cut amber beads, 80 percent of the beads are made of wound glass, and seventeen percent of the beads of drawn glass (table 2.2.7.2 in appendix 2.2.7). These drawn beads with cold-cut edges (table 2.2.7.3 in appendix 2.2.7), nearly all found in a single grave, are of the exact same late sixth century bead-type that was described by Pion to still occur in small quantities amongst P4 strings. As stated above, these were also found in several P3-P4 strings from Wijchen and likewise cause the ratio of translucent beads to rise to almost a third. This increase is also caused by a renewed interest in wound beads made of blue and blue-green translucent glass (table 2.2.7.4 in appendix 2.2.7). As the bead-making techniques have already illustrated, the trend

²⁴⁷ Heeren/Hazenberg 2010, 222. Siegmund 1998.

towards less beads made of amber and more made of glass still continues in P4 strings from Elst and Wijchen (table 2.2.7.5 in appendix 2.2.7).

Provenances

The provenance of beads from P4 strings from Belgium is very European: aside from the presence of some 'older' drawn beads with a provenance in Mesopotamia and Egypt/the Syro-Palestinian Coast, no new glass bead 'imports' from these regions can be observed in P4 strings from Belgium. Still, beads made of amethyst with a provenance in either India or Egypt²⁴⁸ appear in P4 strings of beads, which suggests that not all contact between northwestern Europe and the Mediterranean was lost. Also, people could still rely on the supply of amber from the Baltic, as the sets of large amber beads occurring in P4 strings demonstrate.²⁴⁹ Amethyst beads were not excavated from P4 graves in Elst or Wijchen, but one amethyst bead was found as stray finds in Wijchen: due to the lack of context it cannot be checked if this bead came from a seventh century grave. As amethyst beads are considered to be a typical seventh century occurrence in southern Germany, England and Scandinavia,²⁵⁰ it is likely to be true for amethyst beads from northwestern Europe as well (fig. 2.41). Besides this one amethyst bead, P4 strings of beads from Elst and Wijchen do not feature any new bead-types with a provenance southeast of Europe. The drawn beads that do occur are the older small green drawn beads also observed in P3-P4 strings of beads from Wijchen, all but one of which were found in a single grave (grave 156) in Wijchen, that also contained a sixth-century mosaic bead. Beads from earlier periods were also observed in the P4 bead sets excavated from Wijchen grave 92 and 239, and Elst grave 214: the trend of incorporating older beads in newer bead sets as was observed above for P3 seems to become more pronounced. As amongst Belgian P4 strings of beads, most other beads from P4 strings found in Elst and Wijchen have a provenance in Europe, and amber from the Baltic had become even more rare than it had already become during the late sixth century (table 2.2.7.6 in appendix 2.2.7).

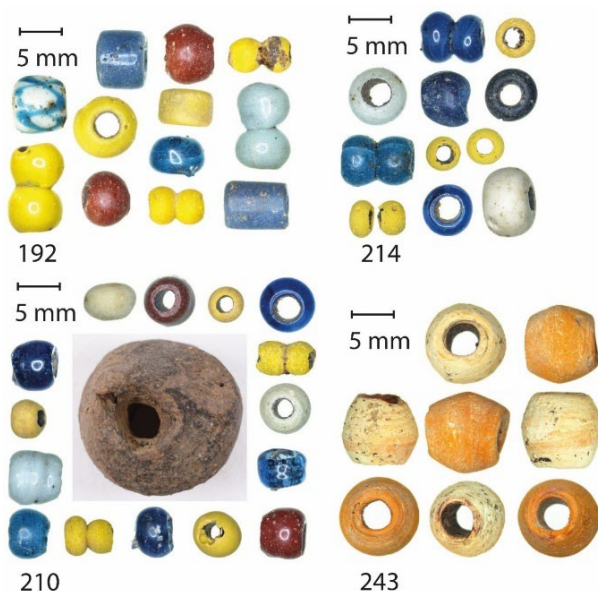


Fig. 2.40 Impressions of beads occurring in P4 strings from the cemetery Elst-'t Woud. Grave numbers are indicated. Photographs by M. Langbroek.

²⁴⁸ Drauschke 2011, 49-50. A fifth to seventh century bead workshop in which amethyst was worked into beads and earrings has been excavated in Alexandria.

²⁴⁹ Pion 2014, 233.

²⁵⁰ Drauschke 2011, 51; Huggett 1988; Ljungkvist 2009.



Fig. 2.39 P4 strings of beads from the cemetery Wijchen-Centrum. Grave numbers are indicated. Photographs by M. Langbroek (149, 92, 239) and R. Mols (5, 156).

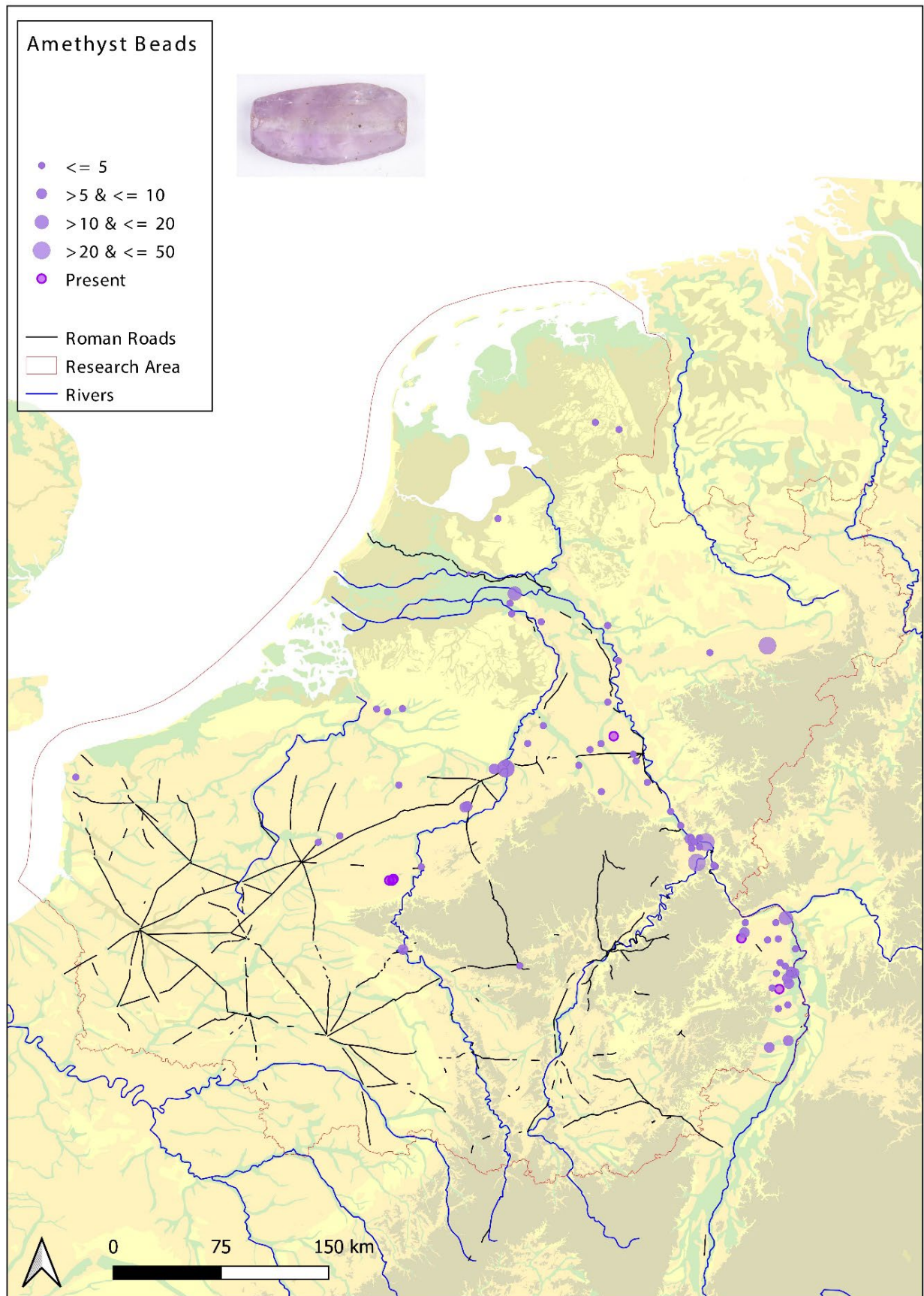


Fig. 2.41 Find locations of amethyst beads, thought to be typical for the seventh century, in northern Gaul. Source: www.earlymedieval europe.org (Online Database ERC Rural Riches).

5. Discussion

In this section, the observations per bead-phase made above will be discussed. In order to keep it as coherent as possible, it will keep a similar structure, starting with a paragraph that considers the concordance of bead-phases and dates assigned to the graves they were excavated from, followed by a discussion of the trends observed in the description paragraphs and an analysis of the fluctuations in bead-provenances throughout phases P1 to P4.

5.1 Bead-phases vs dates assigned to graves

As was already addressed in the methodology section of this chapter, Pion's chronology is based on a seriation of bead ensembles from Merovingian cemeteries in Belgium and not on other grave goods or absolute dates. This means it is a relative chronology, that only shows which strings of beads are *averagely* earlier or later than others. To find out whether the dates assigned to Pion's bead-phases also work for beads from Merovingian cemeteries in the Netherlands, the dates of the bead ensembles from Lent, Elst and Wijchen based on Pion's typology were compared to the date range attributed to the graves they were excavated from in the relevant cemetery's publication. The dates assigned to graves usually cover a much broader span of time than the bead-phase. This makes it relatively 'easy' for a bead-phase to match the grave-date, which can either mean that Pion's phases are too narrowly dated or that beads provide a handy tool to make grave-dates more specific than is possible based on other find categories. Still, the assigned bead-phases generally match the grave dates very well, with most of the date-ranges assigned to the graves not ending much later than a decade or two (or, as for P4, right on the mark) after the assigned bead-phase supposedly ends (table 2.11).

Quite a few strings of beads from Lent, Elst and Wijchen contain bead-types from two successive phases, without a significant majority towards one or the other. The date ranges assigned to the graves these strings were found in demonstrate that they generally date to the (early phases of) the later period (table 2.11). In the discussion below, the data collected for these 'in-between phases' have therefore been incorporated with those of the later period. It also suggests that beads from the previous bead-phase were still circulating during the next. Perhaps they were continued to be worn by the person that first acquired the beads during the previous phase, and occasionally 'updated' with some new beads. Whether or not the strings of beads interred in graves had been worn before²⁵¹ and whether or not the wearer was also the one the beads were buried with, the clear symmetry in many of these 'in-between strings' demonstrates that this updating was by no means executed in a random or haphazard manner. The lack of beads from earlier bead-phases in most strings dating to the sixth century²⁵² also suggests that the exchange of beads across more than one generation was not common, at least not for those strings of beads that ended up being deposited in graves. During the last decades of the sixth century beads from former phases start to occur more frequently than before: the mosaic bead from Wijchen grave 156 even dates two phases earlier than most of the other beads found in this grave.

²⁵¹ Use-wear analyses of beads from grave 9 and grave 13 from the cemetery Lent-Lentseveld, both dating in phase P1-P2 executed by Gemma McGloin at Leiden University has demonstrated that it is likely that they had been worn before being deposited in the grave. Usually, the P1 beads showed more wear than the P2 beads in these strings (McGloin 2021).

²⁵² Discounting the Roman beads (mostly faience melon beads) that occur most often in strings of beads from bead-phase P1. These may have been several centuries older than the rest of the beads they were strung and buried with.

Table 2.11 Overview of bead-phases and average date ranges assigned to graves in which beads from specific bead-phases were found.

Period	Legoux et al. 2004	Date (approximation)	Date Range Graves
P1	MA1	470/480-520/530	before 550
P1-P2			520-570
P2	MA2	520/530-560/570	before 580
P2-P3			before 600
P3	MA3	560/570-600/610	before 620
P3-P4			before 630
P4	MR1	600/610-630/640	590-640

5.2 Beads from P1-P4

In the introduction to this chapter, several questions were posed concerning bead assemblages from Merovingian cemeteries in the Netherlands dating to the sixth century. One of the aims was to find out how many beads were interred per sixth-century phase, and consequently in what ratio of graves beads were interred in each phase. The first is easily answered and summarised in fig. 2.42: throughout the sixth century, amounts of beads deposited per grave remained similar with about 40 beads on average, and dropped to nearly half that amount in the early seventh century. In Lent, Elst and Wijchen the largest number of bead-graves could be assigned to bead-phase P2 (34 graves), but it is hard to establish whether beads were deposited in a larger ratio of graves during this period: due to the wide date-ranges assigned to graves by the publishers of each cemetery, it is often impossible to tell how many graves without beads can be assigned to that period as well. In other words, the ratio of bead-graves to graves cannot be calculated per bead-phase.

During each bead phase discussed above, monochrome beads made up the majority of the excavated bead sets, yet the popularity of polychrome beads did increase throughout the sixth century, reaching highest levels in P3, only to decline again in P4 strings of beads (fig. 2.43). The peak in the ratio of polychrome beads coincides with the rise of the ratio of wound beads that were most likely made in Northern Gaul itself (fig. 2.44). This is also the period for which most evidence of bead-making workshops is found in Northern Gaul: instead of acquiring monochrome drawn beads made of translucent glass in colours that imitated precious stones from distant regions, artisans started to produce wound beads in opaque red, yellow and white glass colour combinations that no longer imitated but instead celebrated the possibilities and properties of glass itself (fig. 2.45). After this period of initial enthusiasm, the ratio of polychrome beads declined again in the early seventh century, as did the average amount of beads deposited per grave. Future research of bead deposition patterns in other regions than the one studied here may indicate whether this early seventh century decline occurs there as well. Similarly, amber beads are at their lowest levels amongst P4 strings of beads, after having steadily declined from the early sixth century onwards (fig. 2.46). This begs the question whether amber simply had become less popular or whether amber had become less readily available. This last theory may well be supported by the fact that once amber beads are at their lowest level a rise in orange opaque glass barrel-shaped beads occurs: does this perhaps reflect a compensation for stagnating amber imports? With the decline in the ratio of amber beads, a rise in the proportion of glass beads is observed. As there is no evidence for the production of raw glass in Europe during this

period²⁵³ combined with little evidence of the recycling of glass either,²⁵⁴ one would have to assume that glass was continued to be imported from Egypt and/or the Syro-Palestinian coast. Still, the decline in the average amount of beads in graves during the early seventh century may reflect a scarcity in the availability of imported raw glass.²⁵⁵ In turn, this coincides with the stagnation of the influx of beads produced in Egypt and regions further to the east, which will be further discussed under ‘provenance’.

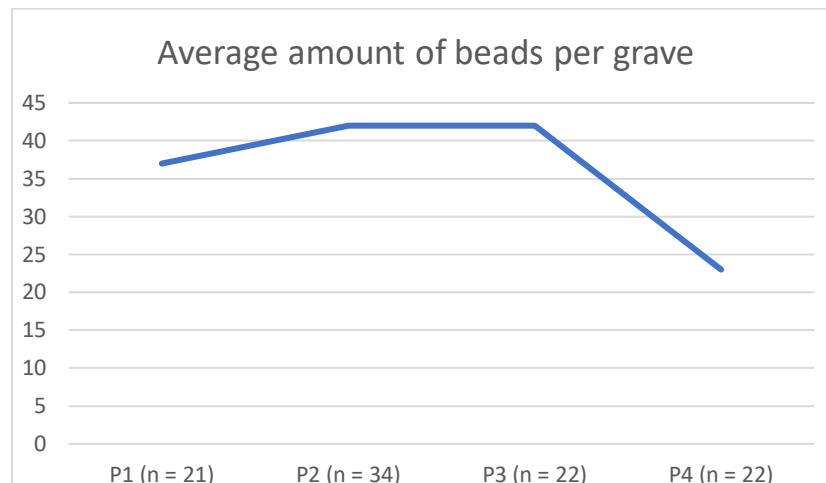


Fig. 2.42 Average amount of beads per grave per bead-phase.

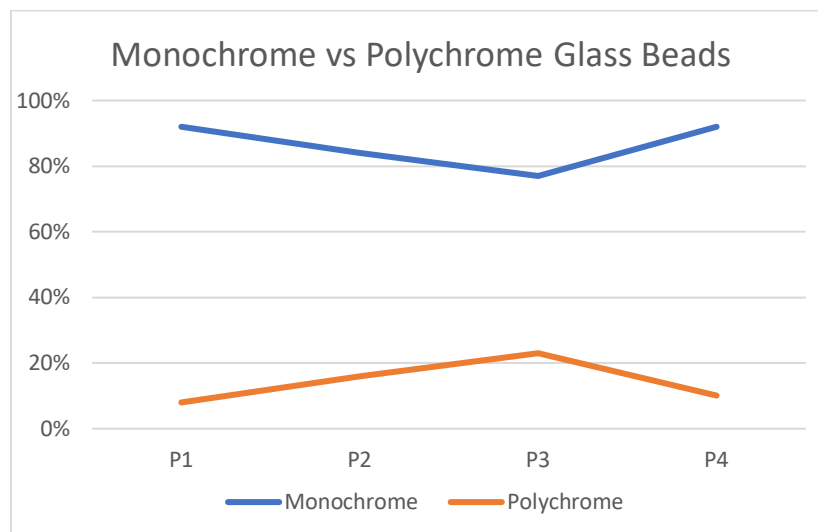


Fig. 2.43 Percentage of monochrome versus polychrome beads per bead-phase

²⁵³ Freestone et.al. 2000; Shortland et.al. 2006; Phelps et.al. 2016; Cholakova et al. 2016. Wedepohl/Baumann 2000 argued there may have been raw glass production in the Hambach forest during the late fourth century, but this has since been refuted by Rehren/Brügger 2020.

²⁵⁴ Large-scale systematic recycling of Roman glass is only noticed from the mid-7th century onwards in Britain (Paynter/Jackson 2016) and later in Western Europe (Phelps et.al. 2016).

²⁵⁵ Van Wersch also reports a decline in glass vessels in the early seventh century (Van Wersch 2015, 556). Still, this could also be a product of the burial ritual: more elements, such as swords and axes, disappear from inhumation graves during this phase (personal communication F. Theuws).

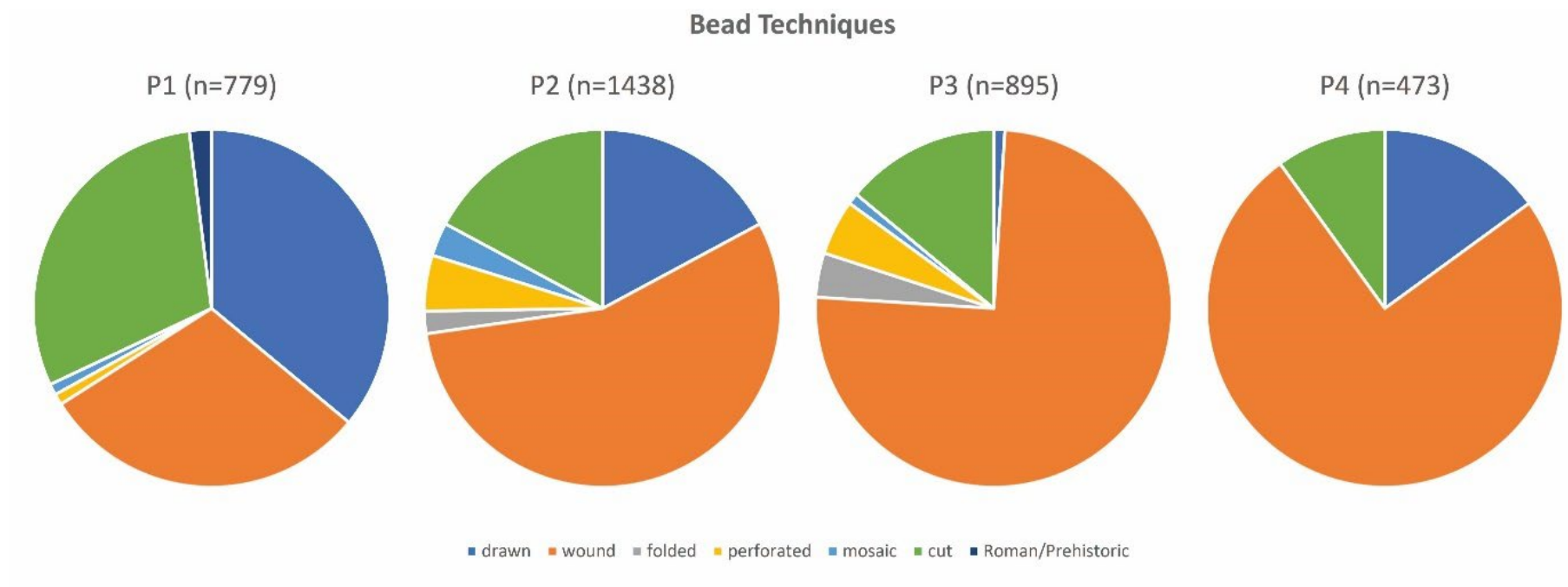


Fig. 2.44 Ratio of bead-techniques per bead-phase.

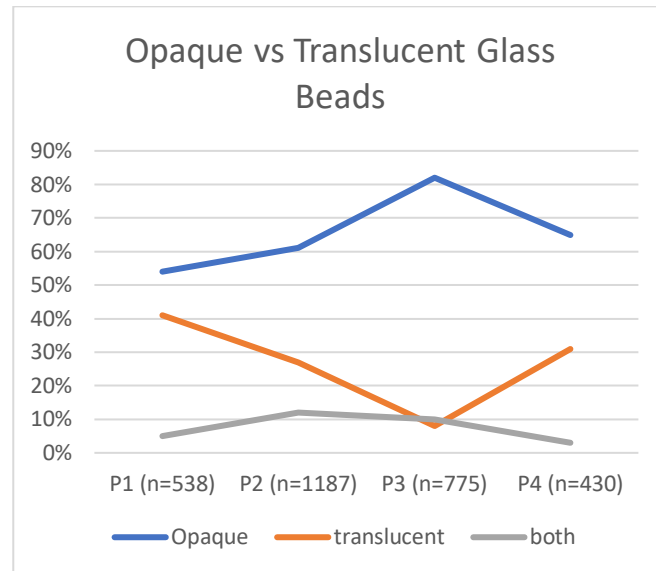


Fig. 2.45 Percentage of beads made of opaque or translucent glass per grave per bead-phase.

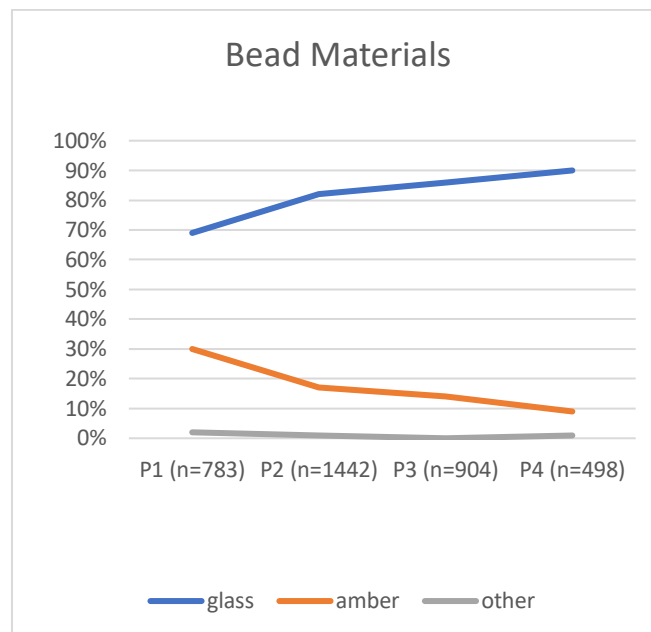


Fig. 2.46 Percentage of materials beads were made of per bead-phase.

5.3 Provenances

A graph in which the provenance of the beads described above is summarised per bead-phase can be seen in fig. 2.47. After P1, when beads from northwestern Europe, the Baltic and Egypt/the Syro-Palestinian coast occurred in relatively equal amounts, beads made in northwestern Europe gradually became increasingly represented as the sixth century progressed. In contrast, beads with a provenance in the Baltic and the Egypt/the Syro-Palestinian coast gradually declined. Especially beads from the latter region and regions further east became practically absent from the seventh century onwards, except those 'residual' drawn beads with a provenance in Mesopotamia and Egypt/the Syro-Palestinian

coast that were found on strings of beads that can be dated to P4. The same decline in ‘imported’ beads had already been noticed for beads from Merovingian cemeteries in Belgium²⁵⁶ and more recently for the province of Limburg, the Netherlands.²⁵⁷ Similar declines in non-local/non-regional materials and objects during the late sixth and seventh centuries have been observed for garnets from the Indian Subcontinent and imported ceramic vessels.²⁵⁸

What were the causes behind this decline in evidence of contact between northwestern Europe and other regions such as the Baltic and the eastern Mediterranean? Traditionally, the decline in beads and other objects in northwestern Europe from Egypt/the Syro-Palestinian coast and regions further east around the turn of the sixth century has been explained as a result of conflict and economic decline *elsewhere*: as a result of the switch of control of the Red Sea in about 570 CE from the Byzantines to the Sassanian Persians,²⁵⁹ the detrimental effects of the Justinian Plague starting in the second half of the sixth century²⁶⁰ and by political conflicts in southern India.²⁶¹ Indeed, McCormick has noted that the number of boats navigating the Mediterranean declined by two-thirds between the sixth and seventh century.²⁶² In terms of beads, it is true that it is only in the later eighth century, when these upheavals had ceased, that we see beads from the eastern Mediterranean and further east appear in northwestern Europe in significant amounts once more.²⁶³ Still, the influx of amethyst beads and shell-disc beads during the seventh century indicates that ties were not completely cut-off.²⁶⁴ Similarly, influx of amber from the Baltic did not stop completely, as the continued presence of amber beads indicates: it just occurred significantly less than before. This may be an indication that the cause of the decline in beads (and other objects) with a provenance outside of northwestern Europe needs to be sought *in northwestern Europe itself*. Let us start with the observation that the scarcity of objects with a provenance from outside the region does *not* mean that northwestern Europe was suffering economically. After all, it is in the exact same period, the late sixth and early seventh century, that we see the emergence of many (bead) production sites.²⁶⁵ This period also coincides with the emergence of many new cemeteries in Northern Gaul.²⁶⁶ Clearly, the population underwent significant growth during this time and with that created a larger demand for the objects that were eventually deposited in graves. This demand may have kick-started the organisation of bead production in northwestern Europe on a larger scale than before. It seems logical that once population levels in northwestern Europe grew large enough, people were able to specialise and carry out specific skills themselves: the large-scale imports of the first half of the sixth century (with significantly lower population levels) were perhaps no longer needed and/or wanted.²⁶⁷ Summing up, the decline in beads from far away may have been a result of *both* a larger demand for beads created by a growing population which kick-started the production of beads in northwestern Europe itself, *and* a decline in bead production and exchange due to political and economic turmoil in the regions southeast of Europe.

²⁵⁶ Pion 2014; Pion/Gratuze 2016; Pion *et al.* 2020.

²⁵⁷ Arends 2022.

²⁵⁸ Calligaro/Périn, 2013; Pion *et al.* 2020, 847-853; van Wersch 2015, 555-556.

²⁵⁹ Von Freeden 2000.

²⁶⁰ McCormick 2001, p. 39-41.

²⁶¹ Calligaro/Périn 2013

²⁶² McCormick 2001, 66, 103-114.

²⁶³ Sindbaek 2023; Langbroek 2021b.

²⁶⁴ See also chapter one and three.

²⁶⁵ Pion 2014, 187.

²⁶⁶ Source: www.earlymedieval europe.org (Online Database ERC Rural Riches). See also chapter one.

²⁶⁷ See chapter five for a more elaborate interpretation.

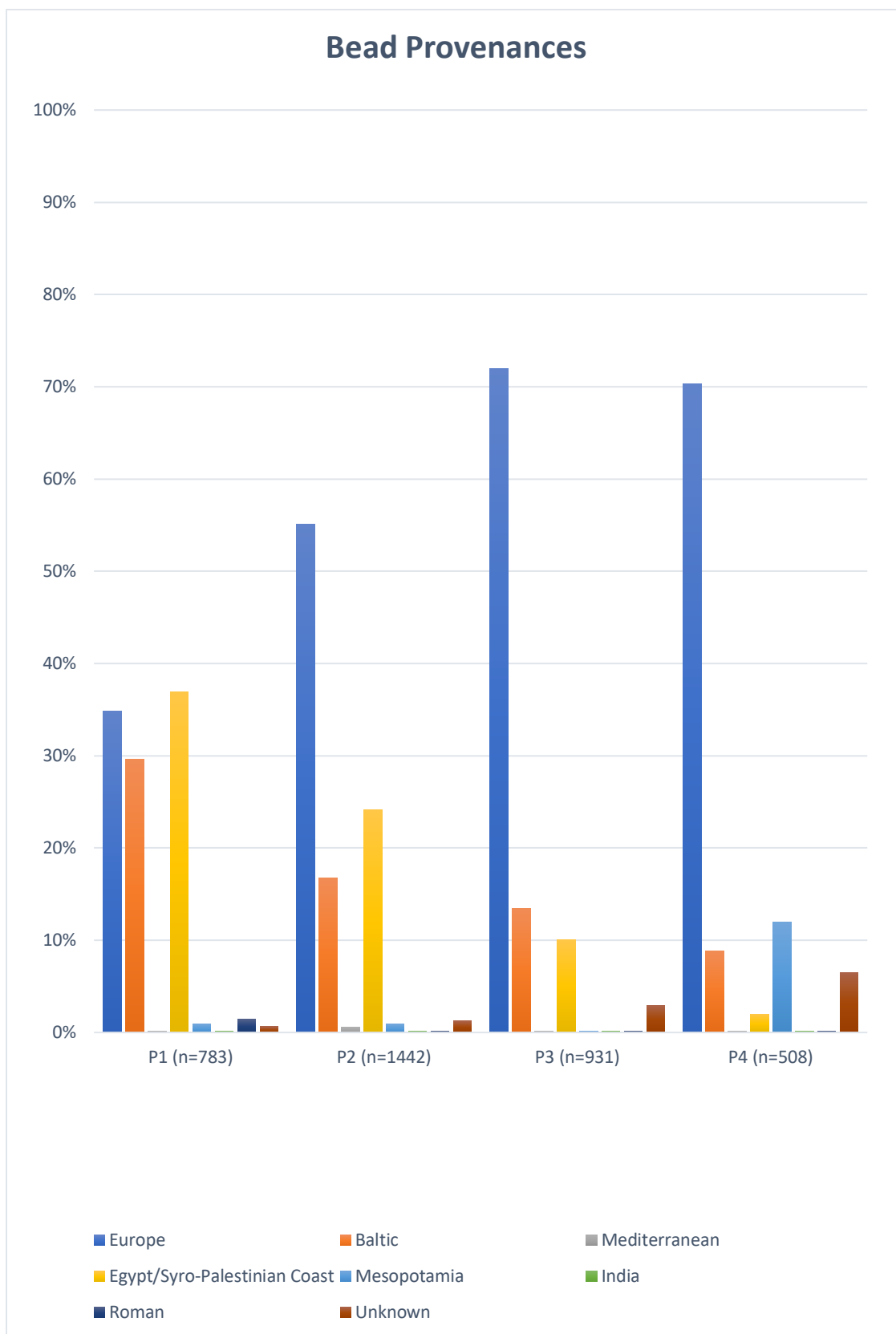


Fig. 2.47 Provenance of beads per bead-phase.

6. Sixth century beads from the Netherlands in a wider European context

As was explained and illustrated above, remarkable similarities exist between sixth century bead sets from Belgium and the Netherlands, with the occasional exception. Can the same be said for sixth century beads from other European regions? In this paragraph, the bead sets excavated from several other cemeteries from Europe dating to the sixth century will first be compared to those from Lent, Elst and Wijchen. Also, the sixth-century bead phases defined by several European bead typologies will be compared to those formulated by Pion. Lastly, this will allow an assessment of whether beads with a non-European provenance were available to people throughout Europe.

6.1 Mainz-Hechtsheim, Germany

This cemetery of 286 graves²⁶⁸ is located five kilometres south of late Roman and early medieval Mainz, on the southern slope of the Hechtsheimer Frankehöhe. It was excavated between 1980 and 1983 and published in 2011 by Ursula Koch.²⁶⁹ It is dated from about 510 to 700 CE. A total of 2363 beads were excavated from 99 graves. Beads dated to the sixth century (SD Phases 4-8, *Perlen Kombinationsgruppen* A-C2) were found in 47 graves. A typical string of beads from each sixth-century *Perlen Kombinationsgruppe* from the cemetery will be discussed here.

One of the earliest set of beads, dating to SD phase four or the early sixth century, was excavated from grave 92 and belongs to *Perlen Kombinationsgruppe* A. It contains 14 beads: translucent wound annular beads, cylindrical drawn beads, segmented metalfoil beads, a lobed bead made of yellow translucent glass, a black annular bead decorated with a row of white dots along the outer rim and translucent beads with opaque yellow wave decoration (fig. 2.48). Identical bead-types have been found in many of the P1 strings from the Dutch cemeteries described above, especially Wijchen grave 29 and Elst grave 216.

The string of beads found in grave 246 belongs to *Perlen Kombinationsgruppe* B/C1, the middle third of the sixth century and contains many yellow and red opaque annular beads, silver segmented metalfoil beads, blue translucent drawn beads with strangled edges, small wound black beads, and amber beads (fig. 2.49). Similar bead combinations were excavated from Lent grave 53 (red, yellow, silver bead types) and Lent grave 26 (amber, blue and black bead types). Both strings of beads from Lent date to the middle third of the sixth century (P2) as well.

A string of beads from the late sixth century (SD phase 7) was excavated from grave 199 and belongs to *Perlen Kombinationsgruppe* C2. It contains only wound beads and has a relatively large percentage of polychrome examples (fig. 2.50), as was also observed for P3 strings of beads from the Netherlands. The monochrome beads in this string are nearly all short-cylindrical beads made of red, yellow, white and blue-green opaque glass. It also contains some red opaque pentagonal beads. The polychrome beads are mostly annular beads decorated with (punctuated) interlacing in different colour combinations. Cylindrical red beads with white or yellow borders and regular dots were excavated from this grave as well. Although this last bead-type was not found in Lent, Elst or Wijchen, this string of beads is very comparable to the P3 strings of beads found in Elst grave 193 and Wijchen graves 132 and 134. The plain disc pendant beads from Hechtsheim grave 199 were not found in any of the Dutch cemeteries either,

²⁶⁸ Of which 109 are deemed 'female' (Koch 2011, 112).

²⁶⁹ Koch 2011.

but were found in several Merovingian cemeteries in Belgium, where they are dated to the mid-sixth till early seventh century.²⁷⁰

Summarising, the beads from Mainz-Hechtsheim closely resemble those found in Lent, Elst and Wijchen, and date to similar phases in time. Furthermore, beads that were produced in Egypt or further towards the east can be found in graves that date until SD phase 7, or the late sixth century, but hardly in any later graves. Much like the cemeteries from the Netherlands, amber beads became much rarer during these later phases as well.

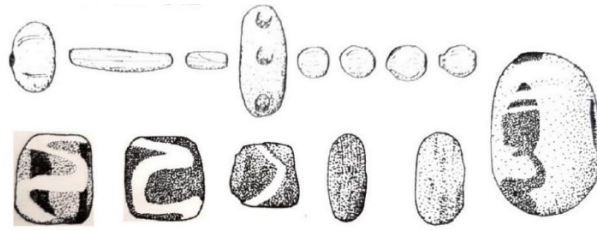


Fig. 2.48 The bead set from Mainz-Hechtsheim grave 92. After Koch 2011, 476.



Fig. 2.49 Beads from Mainz-Hechtsheim grave 246. After Koch 2011, 46.



Fig. 2.50 Beads from Mainz-Hechtsheim grave 199. After Koch 2011, 47.

²⁷⁰ Pion 2014, 192.

6.2 Globasnitz, Austria

This cemetery dates from the times of Ostrogothic rule (493 – 536 CE) contains 422 graves and is the first one of its sort excavated in the Alpine-Adriatic-Area. It was completely excavated after its initial discovery in 1999.²⁷¹ In total, 3048 beads were excavated from twenty-three graves, and about half of the beads were interred in children's graves.²⁷² Compared to the cemeteries discussed above, the ratio of graves in which beads were deposited is very low,²⁷³ yet the average amount of beads per bead-grave is very high in comparison. Here two strings of beads from Globasnitz will be compared to the earliest strings of beads from Lent, Elst and Wijchen.

The first was excavated from Globasnitz grave 172. It contains 108 beads made of glass and 28 made of amber, and is dated to the second quarter of the sixth century (fig. 2.51).²⁷⁴ Several of the amber beads are of an elongated biconical shape, which is typical for the early sixth century according to Pion,²⁷⁵ and were also found in Elst grave 175. The glass beads are drawn segmented metalfoil beads, small black wound beads, small blue drawn beads and three perforated droplet shaped bead-pendants. This bead combination is almost identical to the strings excavated from Lent grave 26, Wijchen grave 235 and Elst grave 175, which all date to the first half of the sixth century as well.



Fig. 2.51 Beads from Globasnitz grave 172. Photograph by M. Pollak.

Another string of beads was excavated from Globasnitz grave 263. It contains 213 beads made of glass and three made of amber, and is dated to the second half of the fifth and early sixth century (fig. 2.52).²⁷⁶ Among the glass beads are segmented metalfoil beads in both silver and gold, small wound black opaque beads, long and short cylindrical drawn blue translucent beads, two large wound annular beads made of blue and yellow translucent glass and a black opaque bead with white wave decoration, all of

²⁷¹ Glaser 2003; Pollak 2021.

²⁷² Pollak 2021, 66. Pollak 2023, 13-14.

²⁷³ Three quarters of the graves did not contain any grave gifts (Pollak 2021, 53).

²⁷⁴ Pollak 2021, 73.

²⁷⁵ Pion 2014, 136.

²⁷⁶ Pollak 2021, 79-81; Pollak 2023, 23-25.

which were also encountered in the earliest strings from Wijchen, Elst and Lent. The blue eyelet bead in the centre of the string has no parallels in any of the Dutch cemeteries. This is not surprising, as the main spread of eyelet beads can be found in central Europe and Scandinavia.²⁷⁷

Both strings consist of beads from various provenances: amber from the Baltic, drawn beads from Egypt/the Syro-Palestinian coast, and wound beads possibly made in Europe. The majority of the beads is small and monochrome, in colours that emulate semi-precious stones. Although the remaining strings of beads from Globasnitz could not be discussed here, a quick browse through the photographs kindly provided by the *Archäologisches Pilgermuseum* in Globasnitz, Austria demonstrates that most beads from the cemetery of Globasnitz are remarkably similar to P1 strings of beads from Lent, Elst and Wijchen described above and those described by Pion for Belgium, both in bead-types and bead-combinations.



Fig. 2.52 Beads from Globasnitz grave 263. Photograph by M. Pollak.

²⁷⁷ Pollak 2021, 81 on Masanz 2017, 56.

6.3 Buckland, England

The Anglo-Saxon cemetery of Buckland was excavated in 1951 and was published by Vera Evison in 1987. It is located near Dover in Kent, in the southeast of England and dates between the late fifth and middle of the eighth century (labelled phases 1 to 7).²⁷⁸ In total 169 graves²⁷⁹ were excavated, 45 of which contained a total of 1442 beads. A total of 41 graves were attributed to belong to phase 1, 2 or 3 of the cemetery, or the period 450-625 CE, roughly corresponding to P1, P2, P3 and P4, 21 of which contain beads. One or two strings of beads from phase 1, 2 and 3 will be discussed below.

A string of 55 beads was excavated from grave 20, dated to Buckland Phase 1, or the period 450-525 CE. It features 21 amber beads, 33 glass beads and one bead made of *Meerscham* (fig. 2.53).²⁸⁰ The glass beads are all monochrome, most of which are either segmented metalfoil beads or drawn blue translucent cylinders. It also contains a few wound annular beads in the colours yellow, green, black and colourless. All these bead types are also known from Lent, Elst and Wijchen. This specific bead combination is a lot like those excavated from Wijchen graves 52 and 219, that were dated to P1.

The beads excavated from grave 92 were assigned to the cemetery's Phase 2, or the period 525-575 CE. It contains 85 beads: 74 amber beads, one bead made of jet, nine monochrome beads made of drawn glass beads (segmented metalfoil beads mostly) and one large polychrome so-called reticella bead featuring a herringbone pattern decoration made of polychrome twists (fig. 2.54).²⁸¹ No direct parallels for this specific bead combination were excavated from Lent, Elst or Wijchen, although all individual bead-types can be found amongst the P2 strings. A strikingly similar string of beads with a majority of amber beads, some segmented metalfoil beads and a central reticella bead was excavated in Dalfsen, the Netherlands (fig. 2.55).

A string of 44 beads was found in grave 59, which belongs to phase 3 of the Buckland cemetery, or the period 575-625 CE. It features three amber beads, 28 monochrome wound annular beads in yellow opaque, white opaque, red opaque and blue opaque glass, 12 polychrome wound beads with spiral or punctuated interlacing decoration, and part of one folded bead (fig. 2.56).²⁸² As a string it is very reminiscent of the one excavated from Elst grave 81, which contains many of the same bead types and colour-combinations and was dated to P3, or the late sixth century. Another string of beads is from Buckland grave 1, which was also assigned to phase 3. It contained 122 beads: six amber beads, 84 monochrome wound annular (some of which have multiple segments), biconical, barrel shaped or short-cylindrical glass beads, 19 polychrome wound glass beads with spiral, wave and (punctuated) interlacing decoration and 13 translucent drawn beads with strangled edges (fig. 2.57).²⁸³ The wound beads are executed in red, yellow, white, blue, blue-green and orange and are very similar in both colour and shape to those found amongst the P3-P4 and P4 strings from Elst and Wijchen.

Generally speaking, each string of beads from Buckland is very similarly dated to those from the three Dutch cemeteries discussed above. Most of the bead-types excavated from Buckland were also found in Lent, Elst or Wijchen, with the occasional exception. Much like the beads excavated from Lent,

²⁷⁸ Evison 1987, 136-142.

²⁷⁹ About 70 of which were deemed 'female' burials: Evison 1987, 370.

²⁸⁰ Evison 1987, 220-221 and 283.

²⁸¹ Evison 1987, 237-238 and 313.

²⁸² Evison 1987, 232-233 and 304.

²⁸³ Evison 1987, 215-216 and 276.

Elst and Wijchen, the vast majority of the beads from Buckland is made of glass (1116 pieces), followed by beads made of amber (275 pieces). In Buckland, amber beads and drawn glass beads occur most abundantly, and in the case of drawn beads almost exclusively, in graves dating to the sixth century.²⁸⁴ Beads made of other materials such as amethyst, jet, shell, marble and metal do occur (51 pieces), but only occasionally.²⁸⁵ Beads made of jet or *Meerscham* occur only in sixth century graves, whereas beads made of amethyst, shell or bronze are a (late) seventh century phenomenon.²⁸⁶ The majority of the glass beads from Buckland are monochrome and are very comparable both in technique, shape and colour to those from Lent, Elst and Wijchen (fig. 2.58). The same can be said for the polychrome beads from Buckland: they are identical to those known from Dutch and Belgian cemeteries (fig. 2.59).



Fig. 2.53 Beads from Buckland grave 20. Image after Evison 1987, 283.



Fig. 2.54 Beads from Buckland grave 92. Image after Evison 1987, 313.



Fig. 2.56 Beads from Buckland grave 59. Image after Evison 1987, 392.

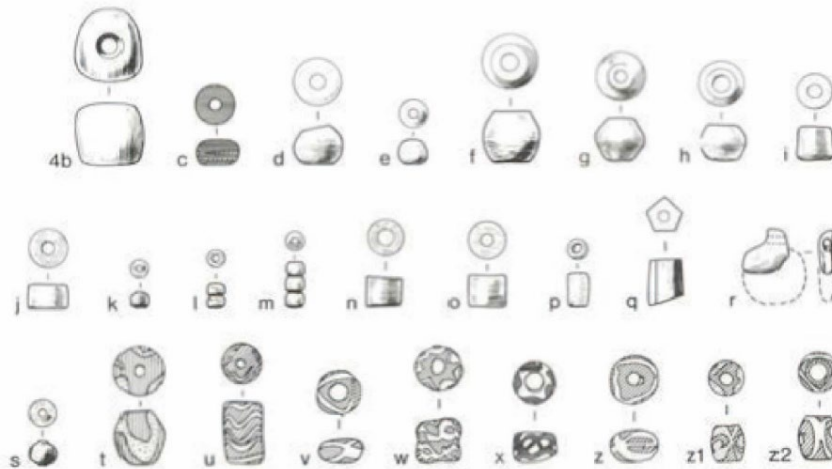


Fig. 2.57 Beads from Buckland grave 1. Image after Evison 1987, 276.

²⁸⁴ Evison 1987, 67, 79 and 81.

²⁸⁵ Evison 1987, 57-61.

²⁸⁶ Evison 1987, 79.



Fig. 2.55 Beads from a grave in the Merovingian cemetery of Oosterdalsen. Photograph: ADC Archeoprojecten.

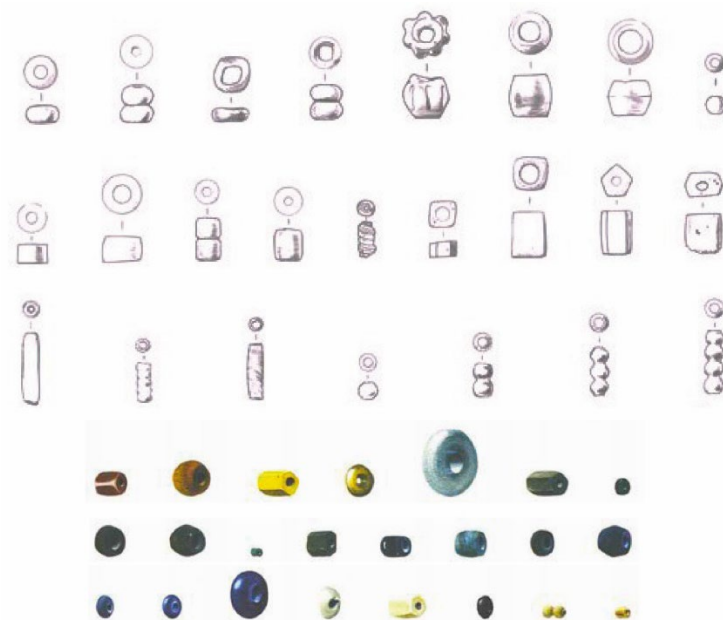


Fig. 2.58 Monochrome bead-types from Buckland and the colours these appear in. Image after Evison 1987, 58 and 391.



Fig. 2.59 Polychrome bead-types from Buckland. Image after Evison 1987, 64 and 391-392.

6.4 Campo-Marchione, Italy

The cemetery of Campo-Marchione is located north of the village of Leno (province of Brescia) in Italy. It is dated from 570 CE ²⁸⁷ to the seventh century (after the establishment of the Lombard kingdom), although the bead-types that are present may reflect an earlier start during the middle decades of the sixth century. Approximately two-third of the cemetery was excavated, revealing a total of 247 tombs, 156 of which contained grave goods ²⁸⁸. Beads were found in 22 burials only, which contained a total of 384 beads, some of which were published by Boschetti and colleagues. ²⁸⁹ This low number of beads and grave-goods in general is attributed to the fact that this is a rural site. This is in stark contrast to the evidence from the Netherlands where beads are found in a much larger proportion of graves, even in rural cemeteries. Still, amongst the beads there are many parallels with the bead-types excavated in Lent-Lentseveld, Wijchen-Centrum and Elst-'t Woud (fig. 2.60). Interestingly, parallels for both wound beads made in Europe and drawn, folded, perforated and mosaic beads from Egypt/the Syro-Palestinian coast occur. Clearly, communities located as far apart as northern Italy and the Netherlands had access to identical bead-types.



Fig. 2.60 Bead-types found in both Campo-Marchione ('C') and one of the cemeteries in this study: Lent-Lentseveld (L), Elst-'t Woud (E) and Wijchen-Centrum (W). Photographs by M. Langbroek and C. Boschetti.

²⁸⁷ This date is mostly based on the historical date of the Lombards moving into Italy around 570 CE. However, it is very well possible that the burial custom of burying the dead with grave goods appeared earlier, and might not be a reflection of a Lombard ethnicity. Many of the bead-types found at Campo-Marchione appear to date to the middle of the sixth century (P2) rather than the late sixth century (P3).

²⁸⁸ Of which 40 are deemed 'female' graves (Giostra 2011, 257).

²⁸⁹ Boschetti *et al.* 2020.

6.5 Comparing European bead-typologies

As was demonstrated above, sixth century bead collections from cemeteries in Britain and continental Europe north of the Alps show remarkable similarities in bead-types, bead-combinations and in burial date. The typology developed by Pion based on early medieval bead collections from Belgium could be applied to early medieval bead sets found in the Netherlands without difficulty. Are the bead phases defined for several other European bead typologies also as comparable? In fig. 2.61, the bead phases for the typologies developed by Pion for Belgium, Brugmann for England, Hines and Bayliss for England, Sasse and Theune for Southern Germany, Koch and Stauch for Southern Germany, Siegmund for Nordrhein-Westfalen and the *Franken Arbeits Gruppe* for the German Rhineland are compared.²⁹⁰ It indicates the name/letter given to each bead-phase by the respective typologies and their date. Taking Pion's bead-phases as a base, a similar colour assigned to each bead phase indicates that the same bead-types were placed in that phase. What becomes immediately apparent, is that the same bead-types are generally classed in the same (relative) chronological order. Hereunder, the bead-types that occur in almost each of these typologies will be discussed for the early sixth century, the middle sixth century, the late sixth century and the early seventh century.²⁹¹

Strings of beads that were buried in the late fifth or early sixth century generally contain a majority of monochrome small beads made of translucent glass emulating precious stones and metals or black opaque glass. They usually contain quite a large percentage of amber beads as well. Polychrome beads occur only occasionally. In nearly every of the European bead typologies considered here, some of the following bead-types occur in the earliest phases: tiny drawn monochrome beads made of translucent glass in blue or green jewel tones, segmented metalfoil beads executed in gold or silver, long drawn cylinders in blue translucent glass, perforated green-blue pentagonal or hexagonal beads, tiny wound black opaque annular or coiled/spiral beads, large wound monochrome annular beads made of yellow translucent, blue translucent or black opaque glass, wound lobed melon beads made of yellow translucent glass, large black opaque wound annular beads with a white or yellow opaque wave decoration, large spindle whorl beads translucent glass with combed spiral decoration, mottled blue or confetti beads, and cylindrical beads made of meerscham/sepiolite or similar composite (fig. 2.62). A large part of these bead-types have a provenance in Egypt, the Syro-Palestinian coast, Mesopotamia or the Indian subcontinent, and not just the bead-types made of drawn glass: polychrome black wound annular beads with wave decoration and confetti beads may have been 'imports' as well.²⁹²

Strings of beads that were buried in the middle third of the sixth century generally feature many more wound beads made of opaque glass in the colours red, yellow and white than those from the early sixth century. Although drawn beads still occur, they do so less often than before. In contrast, polychrome beads appear more frequently. In nearly every European bead typology considered here, some of the following bead-types occur in the phase(s) dating to the middle of the sixth century: annular drawn beads with strangled edges in various colours, silver segmented metalfoil beads, tiny annular black opaque wound beads, large wound annular beads in various shades of opaque and translucent glass, pentagonal

²⁹⁰ Koch 1977; Sasse/Theune 1997; Siegmund 1998; Müssemeier *et al.* 2003; Koch 2001; Stauch 2004; Brugmann 2004; Hines/Bayliss 2013.

²⁹¹ For the middle and late seventh century, see chapter three.

²⁹² Pion 2014, 191-193.

wound beads in various colours opaque glass, irregularly shaped or faceted amber beads, red opaque cylindrical wound beads with spiral decoration, mosaic beads and reticella beads (fig. 2.63). In comparison to the previous period, a much larger part of these bead-types (the wound beads, with a possible exception for reticella beads²⁹³) were made in (northwestern) Europe itself, although drawn and mosaic beads were still being exchanged from Egypt/the Syro-Palestinian coast.

Strings of beads that were buried in the late sixth century generally contain wound beads made of mostly yellow opaque, red opaque, white opaque or (light) blue translucent glass. Polychrome beads occur much more frequently than in previous periods. In contrast, glass beads made with other techniques are almost absent and amber beads still occur, but in much smaller numbers than before. In nearly every European bead typology considered here, some of the following bead-types occur in the phase(s) assigned to the late sixth century: monochrome wound annular beads, monochrome wound biconical beads, short-cylindrical wound beads and polychrome larger and smaller annular or barrel-shaped beads decorated with (punctuated) interlacing in various colour combinations (fig. 2.64). It is most likely that all these bead-types were made in Europe itself. Still, it remains to be determined whether specific bead types were manufactured in one specific workshop or at several locations and/or occasions.

Strings of beads that were buried in the early seventh century, much like during the late sixth century, generally contain a majority of monochrome wound beads in various colours. Polychrome beads are a regular occurrence as well and usually feature interlacing decoration. Amber beads occur in even smaller numbers than in the previous period, and segmented metalfoil beads that could still be observed in strings of beads dating to the late sixth century disappear altogether. In nearly every European bead typology considered here, some of the following bead-types occur in the phase(s) assigned to the early seventh century: multi-segmented annular beads, barrel-shaped or biconical orange opaque beads, double-cylinder beads, annular beads with interlacing decoration, multi-segmented annular beads with interlacing decoration, large globular or biconical red beads featuring white spirals and blue-green waves, and large red cylindrical beads with white combed spiral decoration and yellow borders (fig. 2.65). Much like the previous period, the most used colours are red, white and yellow, although translucent blue-green and orange opaque beads are a new occurrence. All these bead-types have a provenance in northwestern Europe.

²⁹³ Pion 2014, 227.

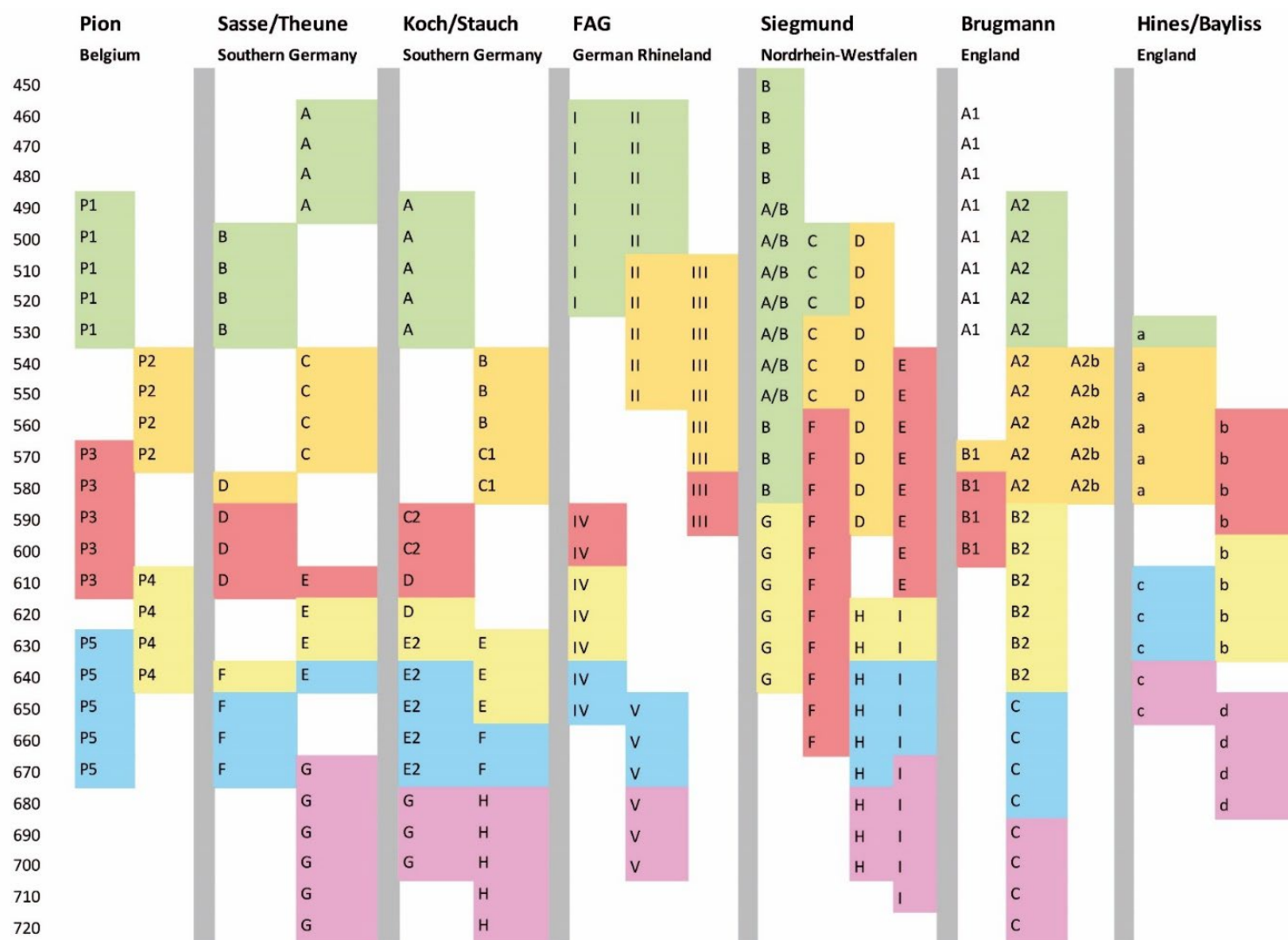


Fig. 2.61 Bead phases from Merovingian bead typologies from Germany and England compared to Pion's bead phases from Belgium. Green: beads from Pion's phase P1. Orange: beads from Pion's phase P2. Red: beads from Pion's phase P3. Yellow: beads from Pion's phase P4. Blue: beads from Pion's phase P5. Pink: beads that do not occur in Pion's typology but do occur in the latest phases of other typologies. No colour: no parallels found in Pion's typology. Some phases have multiple colours and contain beads from two or more of Pion's bead phases. Based on Pion 2014; Koch 1977; Sasse & Theune 1997; Siegmund 1998; Müssemeier et al. 2003; Koch 2001; Stauch 2004; Brugmann 2004; Hines & Bayliss 2013.



Fig. 2.62 Bead-types dating to the late fifth and early sixth century. Photographs by M. Langbroek.



Fig. 2.64 Bead-types dating to the late sixth century. Photographs by M. Langbroek.



Fig. 2.63 Bead-types dating to the middle third of the sixth century. Photographs by M. Langbroek.



Fig. 2.65 Bead-types dating to the early seventh century. Photographs by M. Langbroek and C. Pion.

7. Accessing beads from far away

Summarising the research presented above, remarkably similar beads and strings of beads were not only buried in Lent, Elst and Wijchen, but also in other cemeteries across Europe throughout the sixth century. They resemble one another so much, that the various typologies developed for Belgium, England, the German Rhineland and southern Germany feature identical bead-types that are placed in the same relative chronological order in very comparable bead-phases. Whichever publication of early medieval cemeteries in Europe you open, the graves with beads dating to the first two thirds of the sixth century generally contain a large percentage of beads with a provenance in Egypt, the Syro-Palestinian coast or even further away. In other words: beads from far away were by no means rare during this period, and available to many people across the continent.²⁹⁴ What also becomes apparent is that this influx of beads from the east draws to a close across Europe in the late sixth century. As was already explained above, the decline in beads from far away may have been a result of both a larger demand for beads created by a growing population which kick-started the production of beads in northwestern Europe itself, *and* a decline in bead production and exchange due to political and economic turmoil in the regions southeast of Europe. The similarity of strings of beads dating to the late sixth and early seventh century suggests that even though the influx of non-European beads had dwindled, people across Europe were connected to a network through which beads and/or (rather?) ‘bead-ideas’ were exchanged.

²⁹⁴ For a discussion of the question how the broad availability and accessibility of beads from far away during the first two thirds of the sixth century can be explained, see chapter six.