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Circular, D-Shaped and Other Fortifications in 9th- and 10th-Century Flanders and Zeeland as Markers of the Territorialisation of Power(s)

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Introduction

During the 9th and 10th centuries a range of fortifications of circular, D-shaped and other types appeared in the territories of the Low Countries (Fig. 13.1). This phenomenon does not differ from other regions like the Northern Low Countries (Dijkstra and De Ridder 2009; Bartels 2006), northern France (Lançon *et al*. 2015), Lower Saxony (Schesckewitz 2009) or Holstein (Lemm and Wilschewski 2009) and, traditionally, archaeologists and historians have related the appearance of these structures to the historical master narrative of the Viking attacks on the Frankish and Frisian realms. Specifically, the years around AD 880–890 have long been designated as the most likely period for the construction of these fortresses because of the documented campaigns of the Viking Great Army in the Low Countries then. For long also, the groups of circular and D-shaped fortifications were framed in simplistic archaeological typologies, implying that one had to look for homogenous historical events and/or initiatives behind each form (see, for instance, De Meulemeester 1996). Understandably, this somewhat narrow interpretation was readily adopted in other studies because of its attractive but rather simple narrative, acting as a chronological terminus on its own.

However, in this paper we will explore the chronology, landscape and social and political context of these fortifications in a broader and fully light, using an interdisciplinary archaeological and historical perspective. We will focus especially on the fortresses in the river delta of Scheldt and Meuse (region of Zeeland in the present Netherlands) and the neighbouring region of coastal Flanders (in present western Belgium) between the 9th and 10th centuries, since, in the past decade, new excavations have taken place at many of these fortifications, revealing important new data on their origins and contexts.

This paper begins with an overview of how the phenomenon of fortifying sites in the Low Countries evolved from late Roman times. Then we present a summary of accepted narratives, before discussing the range and quality of the archaeological evidence in order to analyse the different categories of fortification across the 9th and 10th centuries AD.

Between the Roman Period and the 9th Century

We can assume that the late Roman/antique period (4th–5th centuries AD) was the last before the 9th century to be characterised by the large-scale construction and/or maintenance of defensive structures. In that period, the walls of Roman towns like Tongeren, Bavay and Tournai were enforced with new stone curtains, and a number of new Roman forts was erected or renovated, including Oudenburg and Aardenburg in coastal Flanders (Verhulst 1999, 1–21; Vanhoutte 2009).

Today we know that over the following centuries the idea of a Roman society/culture survived in Western Europe, and it is not surprising that many fortresses were retained if only for ideological reasons (Lancon *et al*. 2015). Thus, in the *castella* of Oudenburg and Aardenburg a kind of central place function endured, with both presumably the assembly places and centres of their *pagi*, respectively the *pagus Flandrensis* and the *pagus* Rodanensis (Hollevoet 2011). Oudenburg was called the *municipium Flandrensis*,

which indicates a walled settlement, most likely signifying the ancient Roman stone defences. However, it is uncertain to what extent the defensive walls of these old Roman forts remained fully functional into the 9th century. Despite the obvious strategic value of their locations and their place-names of *-burg* type (first attested in 866 and *c*. 800 respectively), one could argue that these forts or defended foci did not belong to a co-ordinated military system as had existed in their antique past (Vanhoutte 2009; Hollevoet 2011).

In general, however, it seems that settlements with central functions, be they economic, social or other, were not always protected by noteworthy defensive works. On the contrary, most Merovingian settlements and ports appear to have had a distinctly dispersed and undefended character. Despite internal upheavals in the Frankish world, the 6th to 8th centuries AD are overall considered a fairly peaceful period with neither central nor systematic military initiatives, nor the kinds of tensions that would necessitate the fortification of the dispersed settlements. Groups of armed retainers and horsemen surrounding charismatic chiefs and landowners appear instead to have sustained equilibrium between their positions under the rule of the (military weak) kings (Halsall 2003, 219).

A Standard Historical Narrative: Defences against the Vikings

The group of circular fortresses on the isles of Zeeland and in the coastal plain in Flanders have been the object of many studies because of their clear imprint on the landscape and their apparent relation with Danish circular forts like Trelleborg, Fyrkat and Aggersborg (Roesdahl and Sindbaek 2014). Their origin is almost automatically brought in relation with later 9th-century Viking raids in the Low Countries. We can briefly review this historical image. First of all, it is important to consider that prior to AD 879, conflicts were 'limited' to attacks or raids by different, small warbands with different purposes, while trade with Scandinavia continued (D'Haenens 1967; Tys and Wouters in press; Deckers 2014). The first Danish attacks of presumed larger scale are recorded in 810. Written accounts relate how Charlemagne and his administration reacted by organising a coastal defence system, including ships and *praesidia* (small defensive structures, perhaps towers) to guard traffic, trade and settlements (see Hendrickx 1995, 82). In a letter from 834, Einhard confirms the existence of *custodia maritima* in the region under discussion (see D'Haenens 1967, 108). As Hendrikx (1995, 83) suggests, we have to keep in mind that in the same period Charlemagne

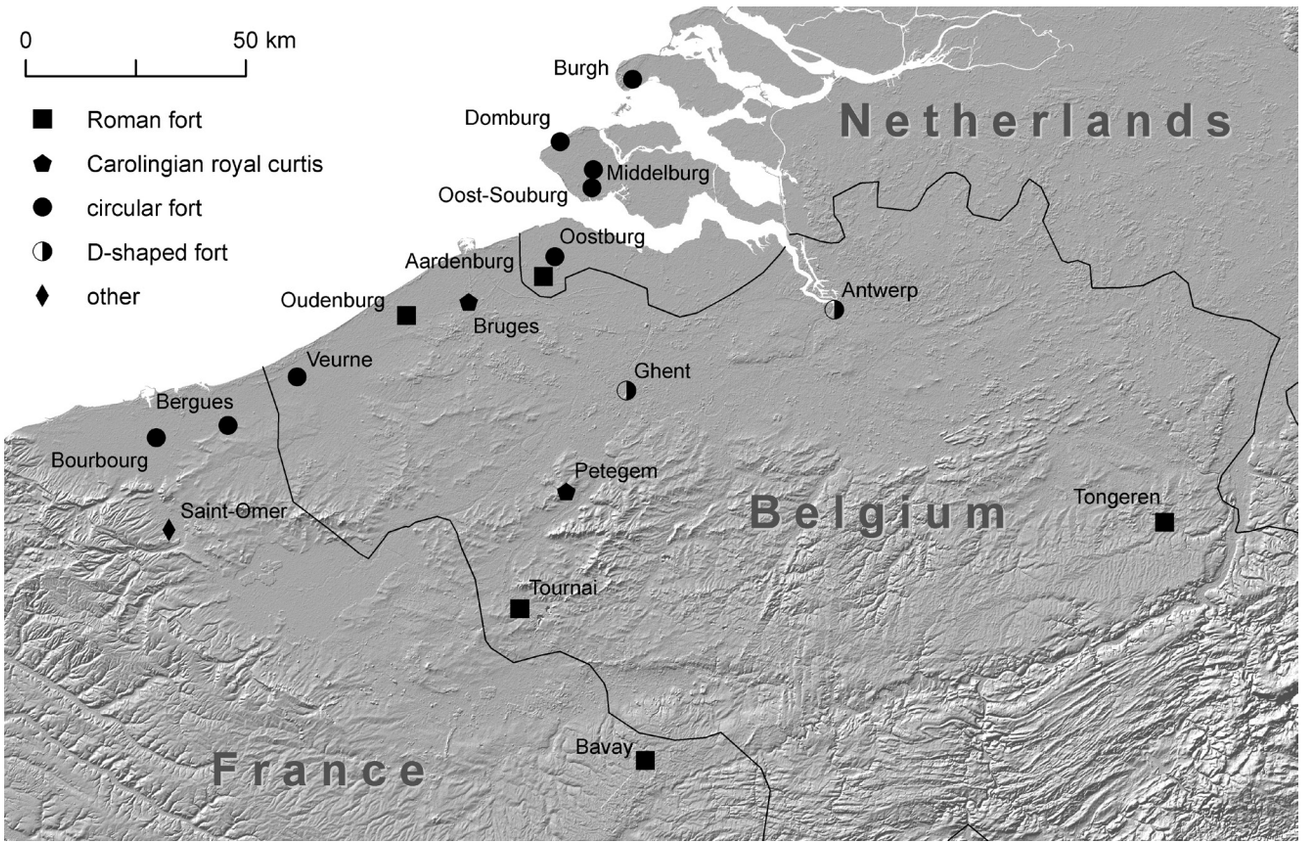

Figure 13.1. Map with al the sites mentioned in the text (Image by the authors).

was very actively supporting the members of the Halfdan clan in their struggles for the Danish throne. In fact, Danish lords, warlords and their warbands were present at the Frankish court between 807 and 875, which indicates that not all contacts with Danes were hostile and that a number of Danish attacks might be regarded as retaliations in the context of Carolingian interference.

Additionally, between 840 and 875 the Danish chiefs Harald and Rorik held positions in the military and feudal structures of the Low Countries, supporting the Carolingian emperors Lothar, and later Charles the Bald and Louis the Fat (Coupland 1998). The least one can say is that Frankish relations with Danish lords were much more complicated than the traditional image suggests. Danish lords like Hemming and Rorik even contributed to the defence of the coasts and rivers (Henderikx 1995, 88, Coupland 1998, 87–88, 95–101; Tys and Wouters in press); conceivably they controlled traffic on the river Schelde and had influence in the 9th-century port of trade in Antwerp (Fig. 13.1).

It is only when a large part of the Great Viking Army crossed the Channel in 879, perhaps as a result of the conditions of the peace treaties between the Danes and Wessex, that the relations with the Franks became hostile and violent for over a decade. Written sources recount how the Great Viking Army raided and plundered Frankish central places, towns and palaces until AD 891 (D'Haenens 1967). Out of 11 known written attestations on Viking massacres in the area of present Belgium, only one does not refer to this period. During this period, Viking campaigns were organised from so-called 'winter camps' which acted as their stores and military bases. As yet, none of these winter camps, one of which lay near or inside Ghent, are archaeologically attested, although some recent indications suggest that we should be seeking river-based camps of similar structure and concept as at Torksey in Lincolnshire, England (Hadley and Richards 2013, http://www.archaeology.co.uk/articles/viking-torksey-inside-the-great-armys-winter-camp.htm).

So, from when did the ringforts of coastal Flanders and Zeeland become connected with this particularly violent period in our history? This standard narrative was developed during the past half-century, its roots being consolidated by 1965, when van Werveke published his synthesis on the 'oldest forts on the Flemish and Zeeland coast', relying on both historical-geographical and historical evidence (earlier treatments of the forts include Pirenne 1939, 123–141; Braat 1941; Dhondt 1942, 78–87; Huizinga 1948). Van Werveke noted the strong similarities in circular topographical patterns of a number of towns along the coast of northern France, Flanders and Zeeland, notably Bourbourg, Bergues, Veurne, Oostburg, Domburg, Middelburg, Oost-Souburg and Burgh (Figure 13.1). He concluded that these were the remains of circular fortifications, and posited that they formed part of a co-ordinated coastal defence against the Vikings. His arguments for this interpretation were: the comparable layout and size of the forts (diameters of 200–320 m); a constant distance of *c*. 20 km between forts (with the Roman forts and Oudenburg and Aardenburg plugging the gap between Veurne and Oostburg); and the common recurrence of the place-name generic element 'burg'. Furthermore, van Werveke identified these forts with the *castella recens facta*, or 'recently built fortifications', attacked by a group of Vikings in the coastal area in 891, as recorded in the *Libellus miraculorum sancti Bertini* (see Wattenbach 1887, 512). Thus, the forts emerged in the scholarly field as a singular site type, coherent and compact in date and of fixed purpose (i.e. coastal defence against the Vikings).

These core elements of van Werveke's interpretation have remained largely unchallenged until recently and paved the way for the further expansion of the ringfort narrative, this time through archaeological research. In 1995, the important volume *Vroegmiddeleeuwse ringwalburgen in Zeeland* was published (van Heeringen *et al*. 1995), providing an overview of the state of knowledge of the five Zeeland ringforts, in particular based on excavations. The most expansive of these excavations (amounting to *c*. 40% of the fort area) was conducted in 1970 and in the early 1980s at Oost-Souburgh. Because excavation at other forts had been limited to small-scale interventions, usually trial trenches to confirm the location of the outer wall and moat, only the Oost-Souburg results had yielded any detailed insights into the occupation sequence. In essence, these revealed that the fort was built on previously unoccupied land and that three subsequent phases could be discerned (van Heeringen 1995b, 23):

1. Following construction of the fort in the late 9th century, it seemingly lay unoccupied for some time, but likely served as temporary refuge during attacks;
2. A main occupation phase in the 10th century;
3. A phase of reduced activity of a more rural nature in the 11th–12th centuries, followed by final abandonment.

The perspective of the ringforts as a singular site category has resulted in the extrapolation of the Oost-Souburg occupation sequence to other ringforts in Zeeland (van Heeringen 1995a, 56; van Dierendonck 2009, 257) and further south (regarding them primarily as refuge forts – *e.g*. De Meulemeester 1996, 379–381).

Reconsidering the *castella recens facta*

A re-evaluation of the current discourse, notably by Ten Harkel (2011; 2013) and Deckers (2014, 96–114), as well as more recent and targeted archaeological research, has identified a number of problems with this standard narrative surrounding the ringfort categorisation.

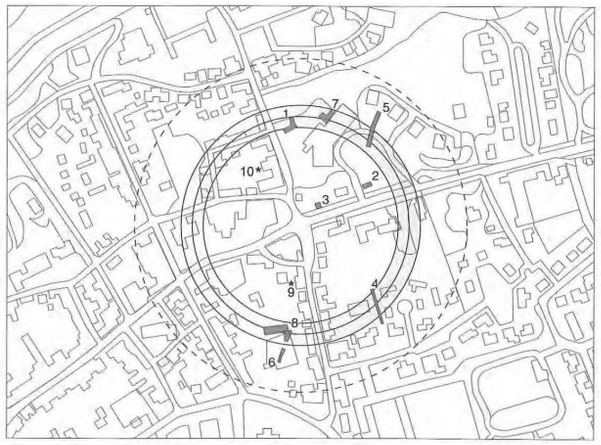

Figure 13.2. Plan of the fortification in Domburg based on archaeological results (Van Dierendonck 2009, figure 9).

Firstly, the historical and historical-geographical evidence underpinning this can be challenged. Most importantly, the identification of the coastal forts as the *castella recens facta* of AD 891 can be questioned. We know, for example, that the *Libellus Miraculorum Sancti Bertini* relates two phases of fortification around the abbey of St. Bertin at Saint-Omer. The first, started around AD 880 and of unknown size and shape, remained unfinished until at least 895, and possibly as late as 918 (see Guérard 1841, 126, 139; Wattenbach 1887, 513; van Werveke 1963, 1066; Derville 1995, 29, 35). The chapter of St. Omer, higher up the hill, was set within a smaller *castellum*, supposedly built between 881 and 891 (when it withstood a recorded Viking attack). De Meulemeester identified a circular structure in the town's topography (1981, 26–27), although in reality the fort's roughly semi-circular shape appears to have been dictated more by the natural topography. Thus, while it is not impossible that the author of the *Libellus* did include one or more ringforts near Saint-Omer (*e.g.* Bergues, Bourbourg and Veurne), fortifications of other types may also have been intended. A one-on-one relationship between the ringforts as such and the *castella recens facta* is highly unlikely and the date of AD 891 cannot be retained as a strict chronological *terminus* for the construction of the ringforts.

Early scholars proposed that the forts were built as a defensive line against Viking attack on the initiative of the Count of Flanders (*e.g.* Pirenne 1939, 127; Dhondt 1942, 83; van Werveke 1963, 1089; van Werveke 1965, 5–6, 18). However, insular Zeeland belonged to a different polity; in fact, the first count of Flanders to occupy Zeeland was Baldwin IV, who ruled between 988 and 1035. Furthermore, it can be argued that a coastal line of defence would have been of limited effectiveness against the Great Viking Army between AD 879 and 892, since its forces travelled on land and rivers in the interior of Francia and did not act from the sea nor did they strongly target that (cf. the overland attack on the 'Flemish' from Condé in 883: see D'Haenens 1967, 53). In fact, it can be observed that the coastal plain appears to have been mostly spared from Viking assaults. The idea that a co-ordinated scheme formed the basis of some of the ringforts cannot be wholly rejected given their similar forms, but positive evidence is scarce. However, in a circular argument the forts themselves are sometimes presented as evidence for the severity of the Viking threat (*e.g.* Henderikx 1995, 94, 99).

Ringforts

Arguably, the circular shape and basic layout shared by the coastal ringforts were the major reasons behind their treatment as a single site category. This is not without problems. When building a rampart to protect a terrain, the circle is the simplest and most economical form conceivable, requiring the shortest wall length in proportion to the enclosed area (Cools 1994, 104). Contemporary ringforts can be found elsewhere in the Low Countries, notably at Rijnsburg, Den Burg and Vlaardingen (Dijkstra and De Ridder 2009; M. F. P. Dijkstra 2011, 127–128) and at Zutphen. That ringforts are rarer along the Rhine-Meuse delta and further inland is likely due to the presence of Roman fortifications which could be refurbished (Dijkstra and De Ridder 2009, 215). Evidently, the morphological criterion alone used to consider the forts of coastal Flanders and Zeeland as a single group cannot retain validity in light of the existence of similar forts further away. Rather, the circular shape could be viewed as an adaptation to the specificity of the local terrain, as for the well-known semi-circular 'D-shaped' fortifications from the same period (Haithabu and others; see below).

Even within the coastal group under consideration here, some variety can be noted (Ten Harkel 2013, 249–250): the forts vary in diameter from 265 m (Domburg – see Fig. 13.2) to 144 m (Oost-Souburg – Fig. 13.3); and Oost-Souburg features an uncharacteristically narrow moat. Additionally, the building method of ramparts is variable (though knowledge of this aspect of the forts is too often based on just a single section): thus a construction using small stakes appears to have been employed to fortify the outer side of the rampart at Domburg, while at other forts turves were used for this purpose (van Heeringen 1995b, 31); at Burgh, a row of thin stakes, 50 cm apart, lined the inside of the wall (van Heeringen 1995b, 34–35); and in contrast to the Zeeland forts, Veurne, the only archaeologically studied fort of the Flemish group, has a double rampart, which was subsequently filled to form a single wall (Lehouck 2001, 55). The internal layout of the forts varied as well: whereas both Oost-Souburg and Domburg (van Heeringen 1995c, 126) featured two crossing roads dividing the forts

Figure 13.3. Aerial photograph from 1944 of the fortification of Oost-Souburg (Van Heeringen 1995c, figure 73).

into quadrants, at Middelburg there are no indications that an E–W road ever existed (Fig. 13.4).

Chronologically as well, the archaeological evidence allows for a more diverse picture than that determined by the historical *terminus* of AD 891. Radiocarbon dates from the five forts in Zeeland (van Heeringen 1995b, 36–39 with Table 1) offer an absolute chronological framework that has hitherto served to support this historical dating. However, this argument does not survive close scrutiny: at a 2-sigma level, the calibrated dates collectively range between the later 9th and the end of the 10th century, and often appear to favour the later 9th century only because of the steep slope of the calibration curve at this point (cf McFadgen *et al*. 1994, 225–230). Additionally, few of the dated materials can be directly linked to the initial construction phase of the wall. Only at Domburg, a relatively precise date from the middle to the third quarter of the 9th century can be proposed based on the dendrochronological date of a coffin made from re-used ship timber (AD 833–849) found immediately beneath and partly within the rampart (van Heeringen 1993, 191–194; van Heeringen 1995b, 31), as well as the presence of Badorf-type pottery on the surface beneath the rampart (van Heeringen 1992, 120–121).

These morphological and chronological features subvert the unity of design and purpose long ascribed to the ringforts; the biographies of these forts are to be understood on their own terms, not within the framework of an overarching narrative. In addition, earlier statements in relation to the occupation sequence of Oost-Souburg, which were subsequently extrapolated to all ringforts, should be treated with caution. Close reading of the published excavation report (*e.g*. van Heeringen 1995b, 23; 1995c, 126–127) reveals that the existence of an 'empty' phase is primarily based on the discrepancy between the assumed date of construction of the rampart (as shown above, based on a flawed historical argument) and the earliest observed occupation in the early 10th century. The deposition of a supposed layer of clean sand beneath the occupation layers, viewed by van Heeringen as marking the end of the 'refuge phase' (1995c, 141), could just as likely denote a stage in the building routine of the fort. Small 10th-century terps in the region were sometimes built in a similar fashion, beginning with a small ring-shaped embankment of clay turves subsequently filled with sand (at traced at Abbekinderen and Buttinge: see Trimpe Burger 1958, 123–139; van Heeringen 1995a, 57; Vos en van Heeringen 1997, 35).

Excavations at the Badstraat site in Domburg, in the north-western quadrant of the fort, brought to light a late 9th-/early 10th-century occupation level featuring five houses overlying a 1.7 m deep stratification of peaty, sandy and clayey layers. These testify to a long period of intensive activity within the fort. A revision of the stratigraphy of previous excavations has revealed the same deep stratification (Ufkes 2011, 14; Deckers 2014, 385–386). Revising and combining the stratigraphies generates a new picture of the earliest occupation. Crucially, at one site, the rampart overlies these layers, proving that they predate the construction of the fort in the second half of the 9th century (van Heeringen 1994; Deckers 2014, 386). This resolves several problematic dendrochronological and radiocarbon dates of objects found within the occupation layers that appeared to be too old to be related to the supposedly late 9th-century fort (for the most recent recalibrations: Ufkes 2011, Table 2.6). A *terminus post quem* for the onset of this occupation is provided by scientific dates from several burials cut into the natural surface beneath the wall and occupation layers. These show that intensive occupation may have begun as early as the late 7th or early 8th century (Ufkes 2011, 19; Deckers 2014, 384). This renders the earliest occupation of the fort area contemporary with the *wic* of Walichrum near Domburg (Henderickx 1995). The latter site, known archaeologically from numerous antiquarian observations and finds on the nearby beach, has recently been demonstrated to have fallen into decline only in the 11th century rather than the late 9th century as previously assumed (Deckers 2014). The *wic*'s relationship with the nearby fort, usually seen as its defended successor, therefore needs re-assessment.

Combined, these critical remarks and new insights undermine the historically biased, generalising narrative that has hitherto surrounded the coastal ringforts. Some aspects of this narrative can be decisively rejected, in particular the implicit but central assumption that all forts had a similar design and occupation history. As seen, a focus on the archaeological evidence, notably regarding construction dates, highlights the uncertainty and ambiguity of current knowledge and aspects that were insufficiently heeded in the traditional approach.

D-Shaped Fortifications

Not only can the coastal ringforts be related to the 9th and 10th centuries: a range of different types of fortifications gather in the same period, notwithstanding discussions over chronology. The most impressive of these are the D-shaped fortifications traced in the trade settlements of Ghent and Antwerp, both of which became large towns in the late medieval period (Figure 13.1). Henderikx (1995, 101) and others have suggested that these first fortifications were part of the Carolingian defence system, but a lack of sound archaeological data has hindered discussion.

The core of the present town of Antwerp is a D-shaped area of at least 2 hectares called 'De Burg' (Fig. 13.5), parts of which were probably inundated by the river Scheldt between the 9th century and the construction of the late medieval waterfront. The *Burg* refers to a late 10th-century Ottonian fortress (*Andoouerpis castro*, 980 – see

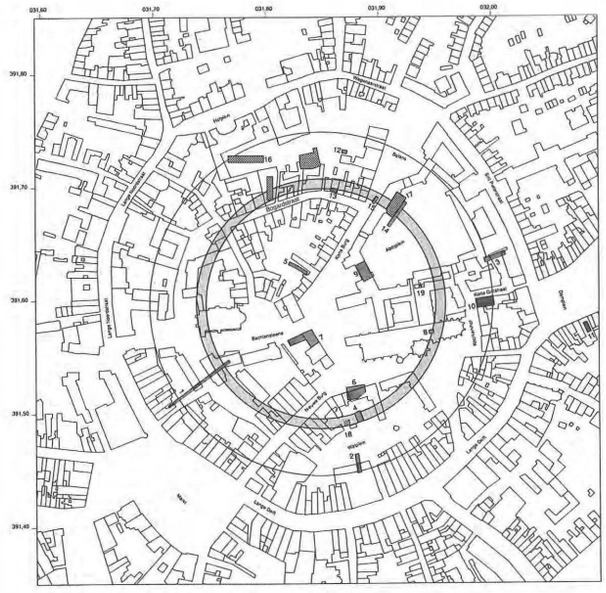

Figure 13.4. Plan of the fortification in Middelburg based on archaeological results (Van Dierendonck 2009, figure 6).

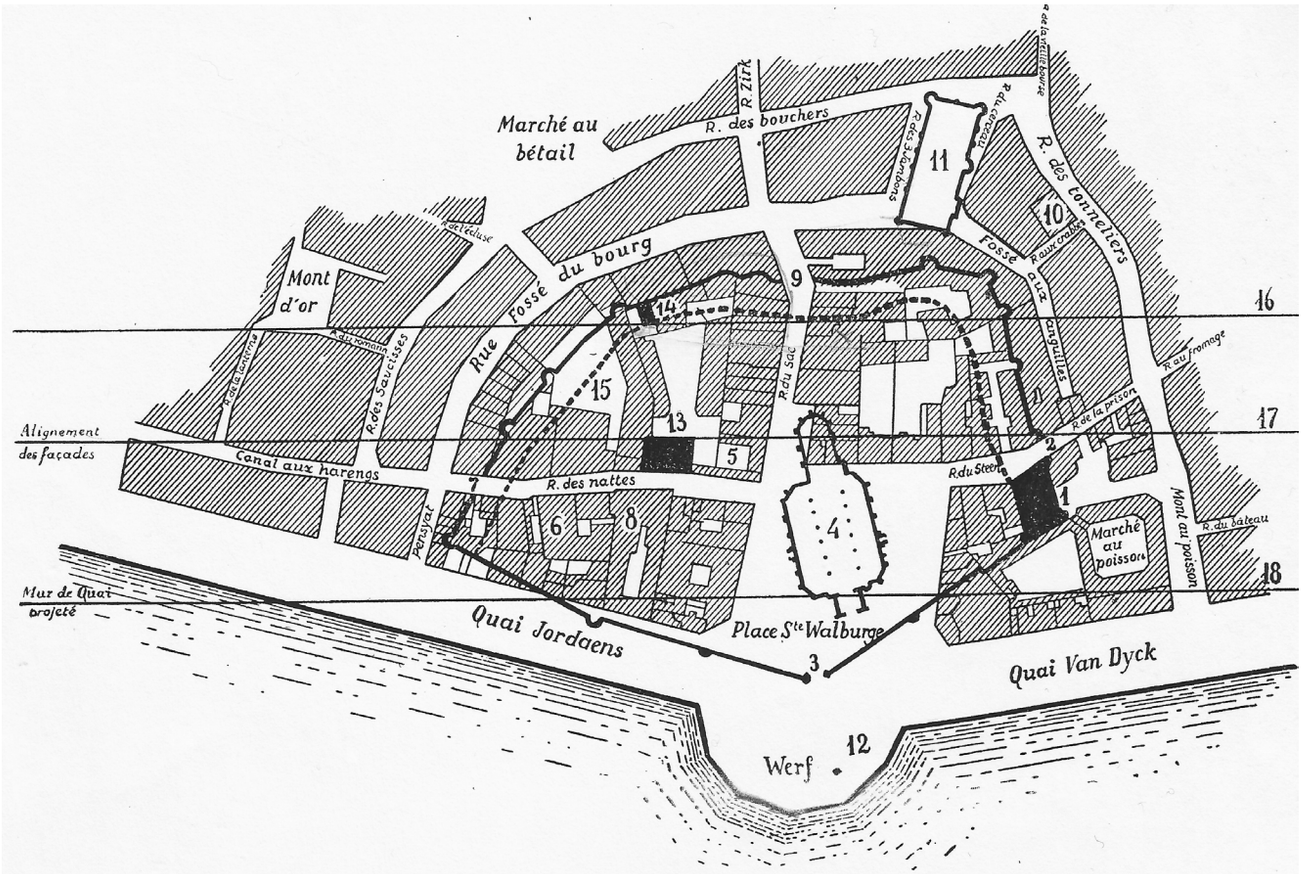

FIG. 34

GROUND PLAN OF PART OF ANTWERP (BELGIUM) IN 1877 SHOWING LINE OF EARLY MEDIEVAL WALLS (pp. 123-5)

1. The Steen (now National Navigation Museum); 2. Steen gate; 3. Wharf gate; 4. St. Walpurgis's church; 5. Law court; 6. The Giant's house; 7. Guldenberg gate; 8. Place of asylum of Afflighem abbey; 9. Vleeshuis gate; 10. The old Vleeshuis; 11. The new Vleeshuis; 12. Crane; 13. The Besaenhuis site and former Mattestraat; 14. Site of section, in 1887, which revealed enclosure-walls of earth and wood, and of stone, as found again at Steen in 1952-3; 15. Probable line of enclosure-wall of earth and wood; 16-18. Present alignment of houses on the quays (16), sheds (17) and embankments (18).

Figure 13.5. Reconstruction of the D-shaped fortification of Antwerp (Image from Van De Walle 1961, 124). Important features are the earthen rampart (no. 15) that was replaced by a stone wall from which the oldest form dates from the early 11th century. 'Steen' (1) is an elitarian dwelling incorporated in the stone wall. The St.-Walburgis church (4) is the successor of a late 10th-century chapel inside the fortification that can be related to the transformation of the trade settlement into an Ottonian-period fortress.

Gysseling and Koch 1950, 242) that was occupied by an imperial representative, the *Markgraaf* (Verhulst 1978). The fortification comprised a stone wall and a wide moat called '*Burchtgracht*'. 19th- and 20th-century excavations have revealed that an earthwork preceded the D-shaped circuit (Van De Walle 1961, 126; Veeckman 2009, fig 5), featuring an earth rampart with a wooden palisade; according to Van De Walle, this rampart was 11 m wide at its base and at least 6.0 m high. The earthwork was dated to the second half of the 9th century based on the presence of red painted pottery and parallels with Scandinavian settlements, notably Haithabu, Birka and Novgorod (Van De Walle 1961, 126). The earthen rampart has seen re-examination in recent excavations (2008–2009): it was shown as 13.5 m wide and *c*. 4.0 m high, and radiocarbon results, stratigraphic analysis and OSL dating set its construction to *c*. AD 900 (Bellens *et al*. 2012, 15).

The fortification protected a trade settlement that appears to be older than the rampart. Inside and around the area of the D-shaped core of the present town, impressive traces were found of a 9th- to 10th-century port or trading settlement with a distinctly urban character. Both the excavations of

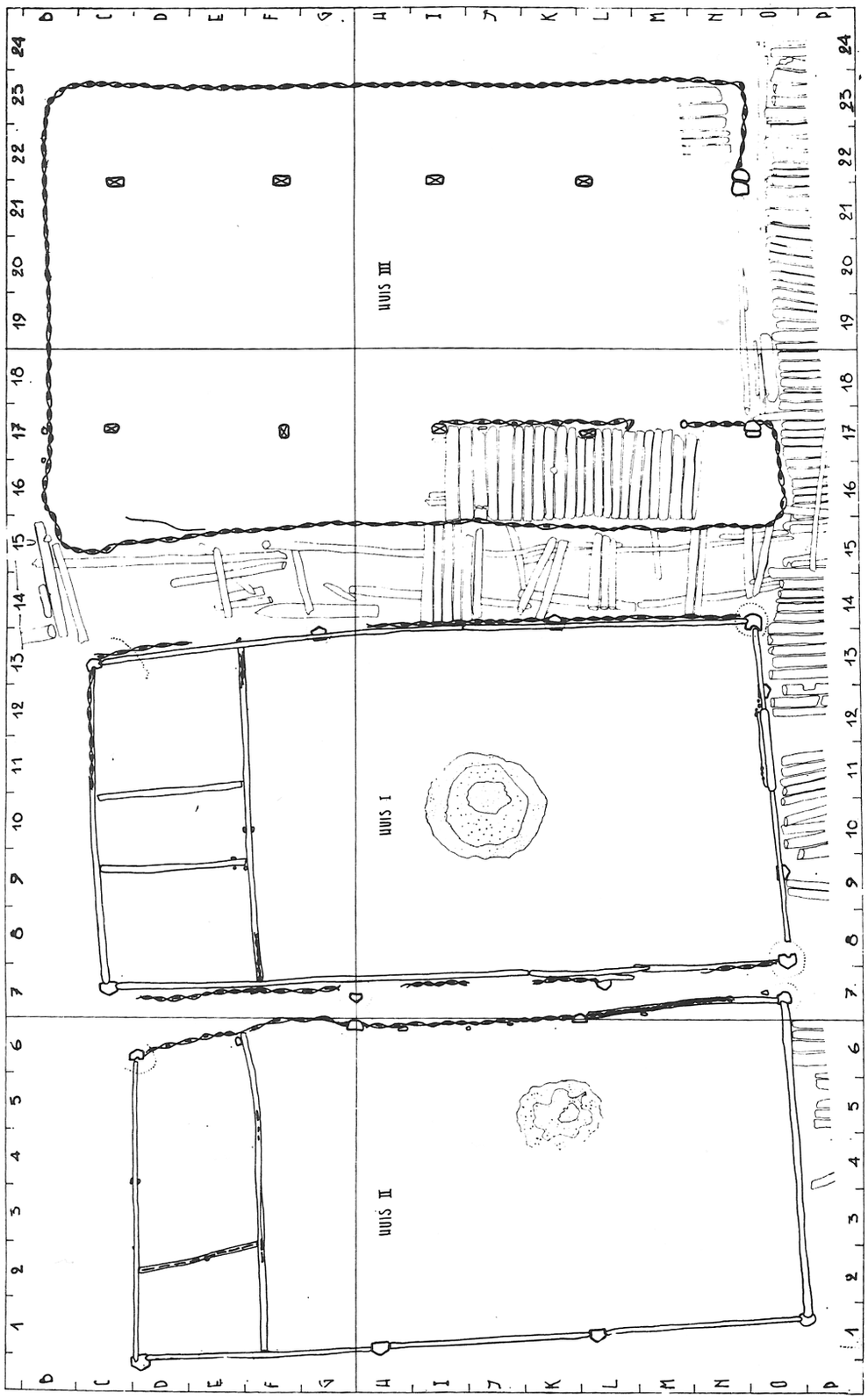

Figure 13.6. The wooden house platforms and trackways of the Mattestraat in the 9th- to 10th-century trade settlement in Antwerp, as excavated by A. L. J. Van De Walle (1961, 128). The site can be found on Figure 5 as no. 13.

2008–2009 and particularly those by Van De Walle between 1952 and 1961 have identified wooden houses between 5.0–6.5 m wide and 12–13 m long surrounded by wattle fences, oriented onto wooden trackways (Van de Walle 1961; Oakley 2011; Bellens *et al*. 2012) (Fig. 13.6). This trading settlement had a complex and long occupation sequence: the earliest buildings were constructed in wood and probably dated to the 9th century, but significant unexcavated structures and deposits also lay below these buildings. Radiocarbon samples collected during the 2008–2009 campaign showed that the wooden trackway had a possible chronological range of AD 780–905 (KIK 6215, KIK 6203, KIK 6257; Bellens *et al*. 2012), while a wattle wall was dated to AD 680–880. This implies that, already in the 9th century, the wooden port in and around the Burg area was densely inhabited with craft production (leather, antler and combs, textiles and wool, metal artefacts) and trade of the same types of pottery as found in Dorestad (notably Badorf wares, *Reliëfband* amphorae, red painted wares including *Hunneschans* ware) (Oakley 2011).

The resemblance with the structures and urban layout of ports like Birka, Haithabu and Dublin, to name just three, is striking (see Clarke and Ambrosiani 1995). Van de Walle (1961, 127) had already suggested a link with the Scandinavian world, but without radiocarbon-dated sequences he was unable to prove this. The historical records, however, present an interesting context, which suggests that 9th-century Antwerp was indeed involved in Scandinavian activities in the Low Countries in this period. Antwerp was already by 640 a central place with a mint called *Anderpus* (Verhulst 1978). Viking raiders looted Antwerp in 836 according to the *Annales Fuldenses* (as discussed in Verhulst 1978 and 1987). The location of this early medieval settlement is archaeologically unknown. Noticeably, the wooden trade settlement from the 9th century was built on older, arable soils. Most remarkably, the written sources remain silent about Antwerp between 836 and 950, by which time it is called a *vicus*. Additionally, the extensive written accounts of the campaigning of the Great Viking Army of 879–891 make no mention of the fortified settlement of Antwerp, unlike many other places and settlements (Bartels 2006, 193 and n. 293). The contemporaneous Danish control over the Schelde estuary under the rule of Rorik and others (see above) prompts the idea that Antwerp was connected in some way or another with the Scandinavian world (see also Henderikx 1995, 87–88; Tys 2010; Tys and Wouters in press). The earthen wall suggests that this specific settlement was threatened in the late 9th/early 10th century.

9th-century Ghent was a polyfocal settlement on the left bank of the river Schelde in inland Flanders (Declercq and Laleman 2010) (Fig. 13.7). Its core was an old Merovingian assembly place, *Ganda*, where counts and freemen gathered to discuss judicial affairs (Verhulst 2002, 38–39). Around AD 640, missionaries visited the place in order to bring it under official royal control, after which two abbeys were founded. The wealth of these abbeys, the presence of a toll and the naming of *Ganda* as a *municipium* point to an important and rich central place involved in trade and artisanal production (Verhulst 1999, 38–39). Before the 9th century, a second settlement developed south of the first, around the present St.-Baafs Cathedral. C14 dates from a number of excavations (not fully published) indicate that this second settlement originated in the second half of the 8th century at the latest and developed into a *portus* or trade settlement (Laleman and Stoops 1996. Radiocarbon dates KIK 824, KIK 7056 and KIK 7057 from this area are 8th- to early 9th-century determinations). This second settlement was protected by (at least) a semi-circular moat 14 m wide and 3.0 m deep (Raveschot 1990). The moat had a length of *c*. 700 m, encircling a zone of 6.6 ha (Bartels 2006, 194). C14 data suggest its construction in a broad chronological timespan between the 8th and 9th century, although the ceramics tend to exclude the 8th century (Raverschot 1990). At present, no archaeological evidence exists of the settlement inside the D-shaped area except the old Sint-Janschurch that must date back to at least the first half of the 10th century (Verhulst and Declercq 1989, 51). Although this remains under discussion, the semi-circular moated trade settlement may have been the *castrum Gandavum* noted in texts in the mid-9th century (ibid., 47). 9th-century Ghent was clearly connected to Carolingian central powers, as testified by the fact that Charlemagne visited Ghent in person to inspect the construction of a fleet of ships in 811, and Charles the Bald installed a mint for silver denarii in *Gandavum* between 864 and 875 (see Declercq and Laleman 2010, 40).

However, the rich port and abbeys of Ghent inevitably also attracted Viking warbands, and at least one of the abbeys (Saint-Baafsabdij) was attacked in 851, after which the monks fled to Laon in France, only to return in 864. Between 879 and 881/883 Ghent became one of the documented winter-camps of the Great Viking Army in the Low Countries. Written data suggest that they controlled the town, but it remains unclear to what extent the D-shaped fortification nearby can be associated with this camp. The Great Army also used Ghent as a place to repair ships in 881 (Verhulst and Declercq 1989, 53). There are clear indications that Ghent revived shortly afterwards and in the 10th century developed into an important town for trade and textile production and became a seat of comital power. In the course of the 10th century, the semi-circular ditch disappeared due to the site's growing urbanisation. While this D-shaped fortification can indeed be related to a very unstable period in the development of Ghent, without further archaeological information we must remain uncertain whether it was a Carolingian, Scandinavian or else a local initiative.

*Figure 13.7. Reconstruction of the D-shaped fortification of Ghent on the 16th-century map of the town by Jacob Van Deventer (*c. *1550) (Image after Raveschot 1990 and Verhulst 1999). 1: pattern of the semi-circular moat and wall that remained visible in the street pattern of 16th-century Ghent, probably the trade site called* Gandavum. *2: Saint-Peter's Abbey, founded* c. *AD 640 and one of the the oldest monasteries in the Low Countries. 3: 10th-century collegiate Saint-John's church built inside the D-shape (the present Cathedral of Ghent) 4.* Novum castellum *or Burg-site developed by the Counts of Flanders in the second half of the 10th century, the present* Oudburg *quarter with the 12th-century Gravensteen, 5. The oldest core of Ghent, called* Ganda *(terminus ante quem AD 640), where the Abbey of Saint-Bavo was built in the second half of the 7th century. In the mid-16th century the site was transformed into a citadel.*

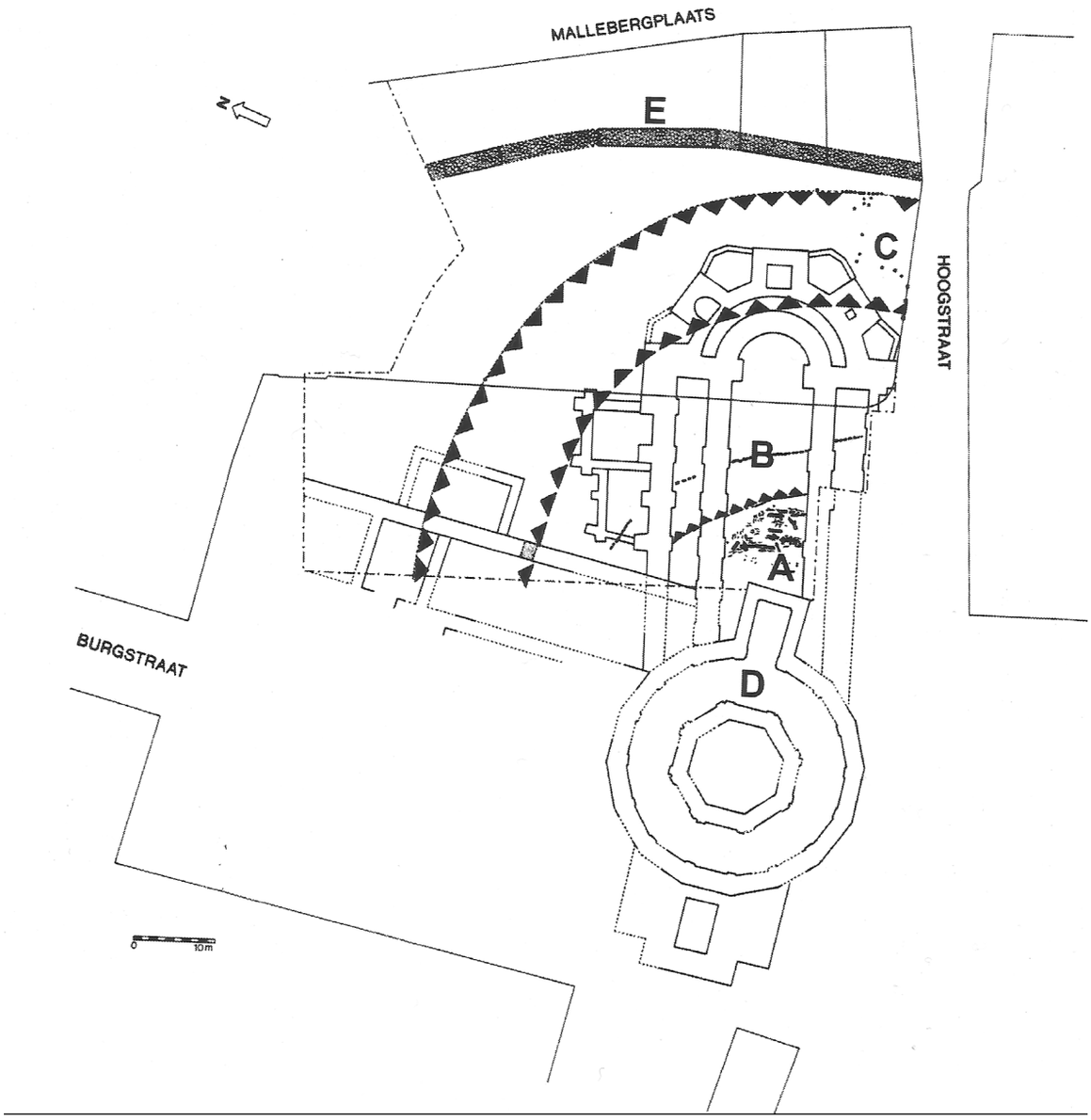

Figure 13.8. Excavation plan of the north-west corner of the fortress that lay at the root of Bruges (Image after De Witte 2011, 80). A and B represent the wall and palisade of the mid-10th century; C is the moat around the fortification; D is the comital collegiate church constructed in the second half of the 10th century inside the palace of Bruges; and E is the 11th-century chalk-built wall that replaced the old fortification works A, B and C.

Smaller Fortifications

Finally, a number of smaller fortifications that may relate to elite settlements or were designed as (smaller) royal fortresses at strategic places should also be discussed here. The best known of these is Bruges, which originated as small semi-circular fortified settlement on a sandy outcrop in the alluvium of a smaller river at the place where the same river (Reie) entered the coastal saltmarshes of Flanders (Hillewaert *et al*. 2011) (Fig. 13.8). First mentioned as *Bruggis* in a source from AD 851–864, Bruges served as a mint under Charles the Bald between 864–875, which is considered further proof for its fortified state then (Declercq 1988; 1991, 30–31; 2011, 129–130). In addition, the fact that Bruges was a stronghold for the Flemish Count Baldwin II in 892 and was transformed into a prestigious fortified comital palace shortly after 950, indicates that Bruges probably originated as a (smaller) Carolingian royal fortress in the mid-9th century. However, archaeology has so far

not revealed any of the fortification works. Of high interest are the layers used to prepare the ground for the 10th-century fortress which included large amounts of imported ceramics (including Badorf ware, Reliëfband amphorae, red painted wares and glazed wares from the Meuse Valley), an antler comb of Baltic origin, metal artefacts and crucibles (Verhaeghe and Hillewaert 1991; Ervynck and Hillewaert 1991). These clearly attest trade activities in the immediate surroundings of the first phase of Bruges (850–950). The animal bones from these deposits reinforce the image of an elite settlement, displaying a high proportion of pig and remarkable species of game including a brown bear (Ervynck 1991).

The strongest evidence for the presence of a royal fortified *curtis* (or manorial estate) to be associated with official defence systems from the mid-9th century comes from Petegem on the river Scheldt (Figure 1). The court complex here included a palace area and a church, surrounded by a moat 7.0 m wide and 3.5 m deep of the second half of the 9th century. This court was the venue for meetings of the highest officials of the north of West-Francia; indeed, in 864 Charles the Bald signed at least one charter in the palace here (see Callebaut 1994).

Fortresses in Context

Petegem and Bruges seemingly fit well into the profile of royal fortifications referred to in the Edict of Pîtres issued by Charles the Bald in 864 (Callebaut 1994; Halsall 2003, 99; Lançon *et al*. 2015, 88). In this *Capitularium*, the king organises the defence of West-Francia in order to prevent the Vikings reaching '*the heart of his kingdom*' (Halsall 2003, 99). The text describes obligations to the Crown in the event of military campaigns and how every person owning a horse had to perform military service in the army when summoned. The mobilised army was to perform watch duty in the fortresses and towns and had to help with the construction of new fortifications near rivers and points of transit; it also stated that no-one other than the king was permitted to establish fortresses and that warriors had to lay down their weapons within 40 days of the end of a campaign (ibid.; Lançon *et al*. 2015).

The Edict of Pîtres reveals something of the political instability of the mid-9th century, which in fact continued well into the next decades. Out of all the fortresses under discussion here, only Petegem, Bruges, Saint-Omer and Domburg can be securely connected to initiatives to erect defences against Viking threats, albeit not always the same threats. Saint-Omer in fact is the only case that can be related with any certainty to the events of 879–891. Antwerp was also perhaps a late 9th-century fortification, although there are indications that the town might not have been under royal control at that time.

We should, however, transcend the near-exclusive focus on Viking threats that has hitherto characterised the debate. The fortifications discussed in this essay may all originate in the 9th century, but their biographies are more complex and variable than simply denoting a defence against Viking war bands between 878 and 891. Some fortifications have clear royal connections, while others do not. Moreover, in many cases these fortresses functioned across much wider and diverse contexts: for example, at three ringforts, Oost-Souburg, Middelburg and Domburg, a 'second phase' of construction, consisting of a significant enlargement of the rampart, has been identified (van Heeringen 1995b, 22–25, 31), while at Oost-Souburg, the roads and gates may have been erected only in a second stage, together with the provision of a significantly wider moat. Regardless of whether these represent wholesale works of reconstruction or more localised repairs (van Heeringen 1995a, 51), the evidence shows that the defensive purpose of the forts continued for some time after their construction, and was not limited to the (later) 9th century. As far as they can be compared, given the variable level of excavation, the three forts on Walcheren differ in various respects. Thus while the site of the fort at Domburg was already inhabited before the ramparts were built as a (peripheral?) part of the long-lived late Merovingian and Carolingian trading site and royal *villa* of *Walichrum*, Oost-Souburg appears to have been a new settlement. By the 10th century, Domburg and Middelburg featured relatively dense, urban-type occupation. The fort at Oost-Souburg, on the other hand, was much less densely populated and perhaps had a much militarised character. Around AD 950, the king or his close ally, the bishop of Utrecht, is thought to have built a collegiate church dedicated to St. Martin at a location just west of the fort of Middelburg, which was to become the mother church of all later parishes in Zeeland (Dekker 1971, 324–325; P. A. Henderikx 1993, 138, 147; Van Vliet 2002, 196–198). This major monumental addition has no parallel at the other forts on the Walcheren, and its presence helps to explain why this fortified settlement became the religious, administrative and commercial centre of the island, while the others fell into decline in the 11th/12th century (P. Henderikx 2002). The archaeological signatures for Oost-Souburg and Domburg differ in other respects as well, such as in the range of craft activities performed there (*e.g*. bronze working was limited to Domburg) and the quality of non-ferrous dress accessories (compare van Heeringen 1995d, 172–173 with Ufkes 2011, 119–127).

In coastal Flanders, Bruges became a stronghold of Count Baldwin II against the West-Frankish King *c*. 892 (discussed in Declercq 2011). Baldwin was a remarkable figure: grandson of Charles the Bald and son-in-law of Alfred of Wessex, he appears in the late 9th century as

one of the most powerful princes in Europe (Tys 2004; Meijns 2007). When the West-Frankish king attempted to defeat Baldwin in 892, the latter retreated to Bruges; according to the sources, this was enough to make the king give up his attempts (Declercq 2011, 131). Bruges became a prestigious comital fortress with a collegiate church in the mid-10th century. The first ringfort to be transformed into a base of comital power was Veurne, where a collegiate church was erected well before 918; Veurne was probably also the first administrative centre of the vast comital estates in the coastal salt marshes (Tys 2004, 2013; Meijns 2007). These salt marshes were ideal grazing grounds for sheep and great profits were made from wool production. Forts such as Veurne, plus other sites in Flanders and Zeeland, may have been part-designed to control this rich local resource rather than simply to counter enemy efforts against the hinterland. The broader historical record makes clear that most, if not all ringfort locations held previous significance as estate centres (Henderikx 1995, 99–101; Tys 2004; 2013; Deckers 2014, 108–109). It is therefore conceivable that other actors were involved in fort construction, notably abbeys and – perhaps more likely during the upheavals of the late 9th and 10th century – regional and local magnates acting (semi-)independently from the royal courts.

Warfare and the problem of raising an army had since long been issues for the Carolingian rulers: lords and men from their estates as well as freemen who could afford a horse had to perform military duty when asked, but already in 811 disobedience and neglect of military duty corroded this vital component of Carolingian central power (see Halsall 2003, 89–97). The noted Edict of Pîtres testifies how these problems had grown considerably by the 860s and even suggests a hint of panic in the royal court of Charles the Bald. As Halsall states, 'these problems eventually proved insurmountable, and they were not helped by Viking and Arab attacks' (2003, 93). Officials, lords and local free landowners increasingly used their military rights and manpower to develop their own power and position, thereby weakening the central garrisons of the Carolingian rulers. It is therefore not surprising that in our study region the construction of a range of fortresses was seemingly instigated by different actors and agents, and with different contextual purposes, ranging from local defensive initiatives over smaller royal fortresses on crossroads to regional initiatives by lords that used them to defy royal power and construct regal-like courts of their own.

Several authors have drawn parallels with the Late Saxon *burh* system in England, of which the Flemish count Baldwin II must have been aware through his family ties with the Anglo-Saxon court (Cools 1994, 28; Meijns 2007, 547–548; Tys 2013; on *burhs*, see Christie, this volume). We can indeed see how those fortresses under his control were transformed between the late 9th and the mid-10th century into *burh*-like strongholds with administrative, military and symbolic purposes. Parts of comital estates nearby were given in fief to *milites* who acted as the core of the comital army and bodyguard. Veurne, Bruges, Bourbourg and Bergues served as strongholds for the development of the autonomous princedom of Flanders with strong central institutions and eventually, in the 11th century, as the centres of administrative districts or castellanies called *Kasselrijen* or *Burggraafschappen*. Thus, the counts successfully followed the example of the Burghal Hidage, something that could not be achieved by the Carolingian royal courts earlier.

In the second half of the 10th century, a number of fortresses that had become centres of Ottonian power underwent similar developments. These included Antwerp, which shifted from a trade settlement outside of royal control to a *vicus* that became part of an Ottonian network of trade and power, to which also belonged Tiel and Aachen (Verhulst 1978, 30–31; Tys and Wouters in press). Around 1000, a new limestone wall replaced the old earthen rampart at Antwerp (Bellens *et al*. 2012, 13). Furthermore, the construction of a Saint Walburga chapel in this fortress (stratigraphically overlying 9th-century houses) fits this transformation of the D-shaped core of the town into the high-status Ottonian *burg*. Similar developments seem to have taken place in Middelburg, whereas in Ghent, the counts of Flanders had a new fort built outside the 9th-century D-shaped fortification in the first decades of the 10th century. This new *castellum* started as a wooden stronghold but by the 11th century it had evolved into a *domus lapidea et turris* in association with a collegiate church, comital aula and adjacent artisanal quarters (Callebaut 1994). The older D-shaped moat would have been filled in before AD 1000. Fortifications that stood outside this system of feudal strongholds or did not fit into the new balance of power became redundant and disappeared from the landscape (Domburg, Oost-Souburg, etc.).

Conclusion

In line with changes in many other parts of Europe, the coastal region of Flanders and Zeeland – the estuary of the rivers Scheldt and Meuse – saw the creation of fortified sites from the 9th century onwards. While the first documentary attestations indicate military activity and the erection of watch-posts rather than large-scale construction works, however, the relationship between the written and archaeological sources is problematic, to say the least. We encounter a rather classic case of archaeology being forced into an historical narrative and chronological framework with a narrow focus on Viking attacks. Instead,

the recent archaeological evidence reveals a much more complex picture: thus the chronologies derived from dendrochronology, radiocarbon dating and other techniques show that the known fortifications cover a time-range spanning the first decades of the 9th century (Domburg) until the first half of the 10th century; moreover, most fortifications were active well into the 10th century, when many underwent modifications and/or enlargements. In some cases the first donjons and castle structures replaced the older 9th-century initiatives (as at Ghent). Archaeology also illustrates the wider variety in forms and construction of these defences and their enclosures.

Attacks by Danish war-bands undoubtedly played a role in the rise of defensive initiatives, but the cases discussed here point towards a general situation of instability and political conflict(s). Danish presence in the Carolingian Low Countries was much more complex than hostile attacks by an enemy with a homogeneous ethnicity. On the other hand, it appears that the Carolingian defensive initiatives were not the result of convergent forces, unified against external threats. Honing in on the different defensive reactions, we notice many divergent initiatives throughout the period under study, ranging from small- to large-scale, local to regional, permanent to temporary, etc. Overall, the limited archaeological data hamper our detailed understanding of the individual roots and trajectories of many forts; but we also need, as seen, to question the data already available.

Those fortresses that continued to function and evolve throughout the 10th century did so in the context of new territorial powers and polities, acting as ideological markers of new agents of power. The specific trajectories of those forts that played decisive roles in the formation of power or in urban developments highlight continuity and the transmission of type forms rather than discontinuity and change. Apparently, political powers did not negatively influence the long-term development of trade and the rise of towns. One of the questions connected to this development is the relationship to production and trade of rural and artisanal products. This, however, is an issue that requires more attention in research regarding the multiple and intriguing links between landscape, economy and society in the dynamic period of transformation of the 9th and 10th centuries.

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Abbreviations

KIK: radiocarbondates from the Royal Institute for Cultural Heritage Belgium (http://c14.kikirpa.be/)

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