Michel Groothedde

Carolingian Zutphen *in pago Hamelant*

ABSTRACT

Zutphen, a Hanseatic city on the banks of the river IJssel, has an early medieval origin as a center of power of various count dynasties. Its roots lie in the 4th century when a settlement was founded defended by a double moat. In Carolingian times, Zutphen was a stronghold of the counts of Hamaland. The counts' power base was formed by their share in the large-scale iron production. Probably in 882 Zutphen was destroyed during a Viking raid. In response, a circular fortress was built around 890. The fortress was constructed according to the principles of the *Burgenordnung*: a circular walled structure with a central square for open air jurisdiction and a market, on which stood a church and a large hall (the »palas« of the count). The neighboring trading town of Deventer was also provided with a wall and rampart and the bishops of Utrecht and merchants from Dorestad chose Deventer as their safe place of residence. Of importance was the presence of a powerful dynasty in the immediate vicinity.

KEYWORDS

Circular fortress / viking raid / counts of Hamaland / iron production / counts' court

In recent decades, the Carolingian period in Zutphen has come under close scrutiny, in part fuelled by the discovery of the remains of a Viking attack that took place in the late 9th century. The construction of a circular fortress in Zutphen in response to this attack can be said to have provided the town with a blueprint for its subsequent development. The present article summarises the information currently available on the Carolingian and Ottonian period pertaining to the Zutphen fortress (Groothedde 1999a; 2004; 2009; 2013a) by presenting its archaeological context in relation to current historical information.

The Burning and Massacre of the Carolingian Settlement at Zutphen

In May 1997 archaeologists investigating the construction trench for a new town hall (**fig. 1b, 4**) were confronted with the silent witnesses of a late-9th-century tragedy, in the form of numerous traces of a destruction episode that marked the end of a Carolingian settlement. We will discuss the various remains to give an impression of the character, layout and buildings of Carolingian Zutphen. It is important to keep in mind that only about 5 % of the estimated total settlement area has been excavated so far (**fig. 2**). Fortunately, this includes the settlement's core area: the administrative centre on and

In: M. Gierszewska-Noszczyńska · L. Grunwald · O. Grimm (eds), Frankish Seats of Power and the North – Centres between Diplomacy and Confrontation, Transfer of Knowledge and Economy.
LEIZA Publications 7 (Mainz 2025). DOI: 10.11588/propylaeum.1681.c24453

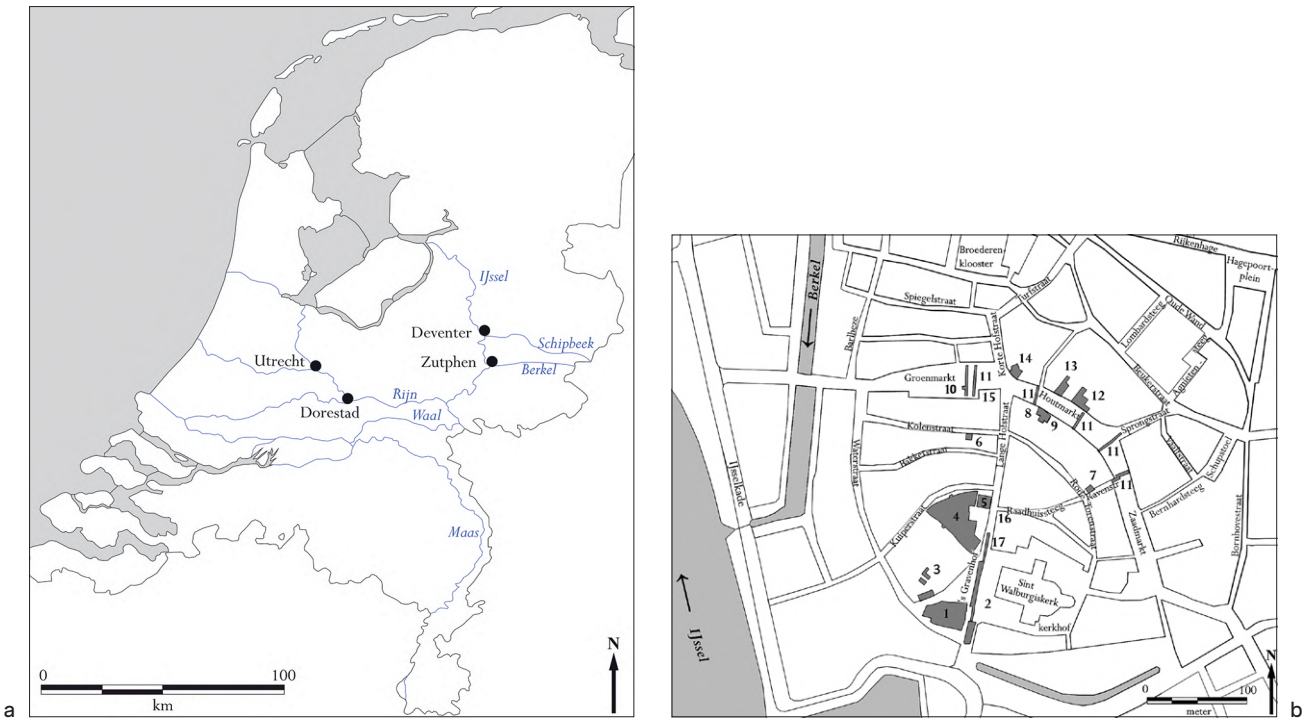

Fig. 1 The Netherlands: **a** Zutphen and other sites of the Early Middle Ages. – **b** Simplified plan of the southern part of the centre of Zutphen. Indicated are the streets and excavations mentioned in the text: **1** 's-Gravenhof square 1946. – **2** 's-Gravenhof square 1999. – **3** Huize van de Kasteele. – **4** New town hall. – **5** Kuiperstraat 1. – **6** Kolenstraat 7. – **7** Ravenstraatje 1. – **8** Houtmarkt 54. – **9** Houtmarkt 56–58. – **10** Groenmarkt square 1946. – **11** Groenmarkt-Houtmarkt square 2004. – **12** Houtmarkt 67–71. – **13** Houtmarkt 63. – **14** Houtmarkt 47–49. – **15** The Wijnhuis building and tower. – **16** The Meat Hall. – **17** The old town hall. – (Maps Erfgoedcentrum Zutphen, team archeologie).

around 's-Gravenhof square, a comparatively small area which nonetheless has yielded an astonishing amount of information.

The eastern limits of the town hall excavation just touched upon traces of a building (House 2) identified as a »Deventer 3« type. This is a configuration typical of the late Carolingian period that has been also encountered in Deventer in the context of a Viking attack (Mittendorff 2007, 253–255). Other features in the town hall trench were identified as four rectangular sunken huts (Hut 1–4; **fig. 3**) (Koster 2011). Ditches parallel to and in alignment with these building features mark plot boundaries. The same orientation is carried through in the entire settlement. Building features, huts, (rubbish) pits and ditches produced carbonised grain, charred timber, burnt daub, metal utensils that had been dropped, pottery fragments, and many lower legs and skulls of cattle as well as human skeletal elements. Remains of several different human individuals were present but only two more or less complete skeletons, found on the floor of two different sunken huts. One of the skeletons belonged to a young person approximately 16–23 years of age (**fig. 4**), the other to an adult of 30–40, most likely female (**fig. 5**). The adult skeleton was found in roughly anatomical order; only the hands and one foot were missing while bones of the other foot were found in the corner of the hut. Physical anthropological analysis revealed traces of violence on the skeletal remains (Rompelman 2007; Meijer 2025). An exceptional find was a small bronze coin in Hut 1, a *styca* issued by King Aethelred II of Northumbria and minted by mint master Eanred in York between 840 and 844 (**fig. 6**).

The building, the four huts, the pits and the ditches in the town hall trench apparently marked the limits of the settlement. Further west, no 9th-century settlement traces were encountered, but they were present to the north and south. A trench in a house cellar on Kuiperstraat 1 (**fig. 1b, 5**) revealed another 9th-century sunken hut, which again produced a lot of bone, while the upper infill of a well next to the hut yielded more human skeletal remains.

The northernmost late-Carolingian sunken hut was discovered in another cellar, on Kolenstraat 7 (**fig. 1b, 6**; Groothedde 2003, 8–10). This hut, measuring 3.80 m × 2.60 m, lies 65 m north of Kuiperstraat 1 and 175 m north of the timber hall on 's-Gravenhof square (see below).

Other building remains were encountered further south, towards the centre of the Carolingian settlement, as became clear when earlier excavations carried out in 1946 (**fig. 1b, 1**) were re-examined.

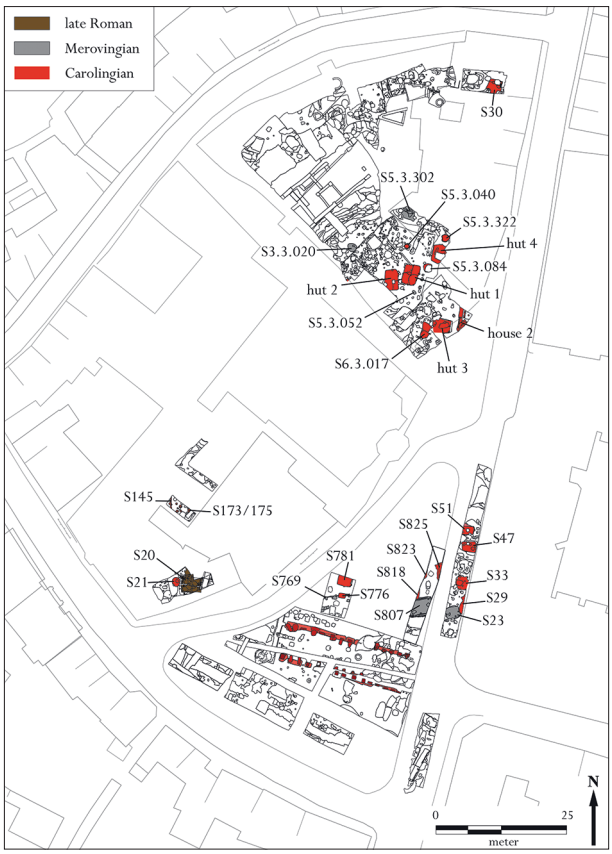

Fig. 2 General map of all the features associated with the Carolingian settlement, with numbers referring to features mentioned in the text. – (Map Erfgoedcentrum Zutphen, team archeologie).

Fig. 3 Zutphen town hall. Cleaning up the remains of Sunken Hut 2 in Trench 5. – (Photo Erfgoedcentrum Zutphen, team archeologie).

Fig. 4 Skeletal remains of a young person, c. 16–23 years of age, found in Sunken Hut 1 amidst burnt materials and objects. – (Photo Erfgoedcentrum Zutphen, team archeologie).

Fig. 5 Skeleton of a woman c. 30–40 years of age, who suffered several sword cuts *perimortem* and died on the floor of Sunken Hut 3. – (Photo Erfgoedcentrum Zutphen, team archeologie).

Several huts, cattle skulls, human remains, and an impressive timber hall could be identified (see below). Two more sunken huts were encountered in a sewage-pipe trench dug in 1999 across 's-Gravenhof square (**fig. 1b, 2**). To the south of these two huts were two rubbish pits, also from the Carolingian period. The huge quantity of bone material from these pits was analysed and gave detailed information about the meat consumption pattern at the time (Rompelman 2007). Another Carolingian bone dump in a rubbish pit was found in Trench 3 of the Huize van de Kasteele site (**fig. 1b, 3**); it too contained human remains. The pit was radiocarbon dated to the late 9th century.

The picture emerging from these finds is that of a settlement with a striking density of sunken

Fig. 6 *Styca* issued by Aethelred II of Northumbria (mid-9th cent.), found lying behind the skull of the young person in Sunken Hut 1. – (Photos Erfgoedcentrum Zutphen, team archeologie).

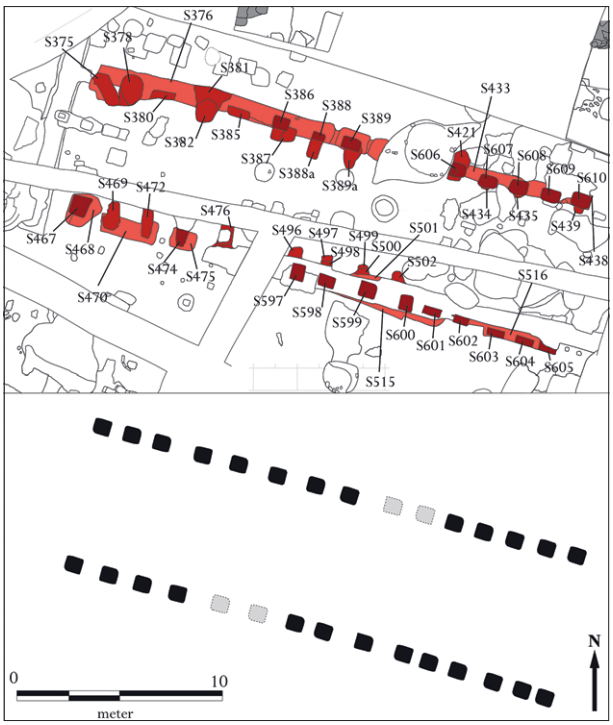

Fig. 7 Trenches 1, 2 and 3, Level F of the 1946 excavations (**fig. 1b, 1**), showing traces of an aisleless timber hall. – **Pale red** Foundation trench. – **Bright red** Holes left after removal of the posts. – **Dark red** Posts. – Below, a simplified reconstruction of the original plan. – (Plan Erfgoedcentrum Zutphen, team archeologie).

huts during the Carolingian period, a continuation of the late Roman and Merovingian situation when the area had also featured sunken huts. However, all Carolingian sunken huts were found to the north of the timber hall (see below). Based on the fact that twelve huts have been identified in the excavated c. 5 % of the area we may extrapolate up to 240 huts for the entire settlement.

Trench 2 at the Huize van de Kasteele site (**fig. 1b, 3**) produced a Carolingian sunken hearth dated by the presence of a Badorf Ware rim fragment and on stratigraphic grounds. This hearth was possibly associated with a house plan of which a few postholes and a (wall?) trench with associated posts were identified. Unfortunately, Trench 2 was too small to allow any conclusions as to the building's size, but it does show that the Carolingian settlement also contained houses, albeit probably far fewer than the number of huts, based on the (limited) information from the excavations.

The Great Hall

In his publication of the tuff stone palace discovered during his 1946 excavation (**fig. 1b, 1**; Renaud 1950, 21–25; Groothedde 2013a, 106–113), Renaud extensively discussed the traces of a »timber hall« found in the lowermost excavated levels; and he speculated as to the building's possibly two-aisled construction. Renaud encountered an additional row of posts to the north of what appeared to be the hall's north wall, and inside the building he recorded several large postholes perhaps representing a central load-bearing construction. The northern row of posts Renaud explained as perhaps part of a portico. Archaeologist Peter Bitter was unconvinced as to the building's two-aisled construction and instead suggested that the northern row of posts could be part of a second building to the north of the timber hall (Bitter 1983, 19–20). In 1992, the present author concluded that the feature represented a second construction phase of the hall, a wider, two-aisled building that replaced the earlier aisleless one (Groothedde 1992, 1–10).

Renaud's excavation drawings clearly suggest that the northern and southern post alignments belong together as both were placed in the same foundation trench dug into the natural subsoil (**fig. 7** above). The posts, which all seem to have been removed after the fire, are large and square to rectangular, measuring 30–35 cm in cross section. They were arranged into 15 regularly spaced (truss-post) pairs, about 1.6 m apart, and the entire hall measured 24.5 m × 7.5–7.9 m (**fig. 7** below). All three authors correctly concluded that the walls were built of timber planks instead of the traditional wattle and daub (**fig. 8**). They ran straight without a hint of the curving found in farmhouse types like Odoorn D or Gasselte A. Rather than resembling a traditional farmhouse the Zutphen building in its shape, width, internal division and construction represents a great

hall. Large charcoal concentrations led Renaud to conclude that the building was destroyed by fire, as we saw earlier. The finds from the postholes place this event in the second half of the 9th century. The building was probably short-lived, as there are no signs of repairs or replaced posts. This suggests a construction date for the hall somewhere in the mid-9th century.

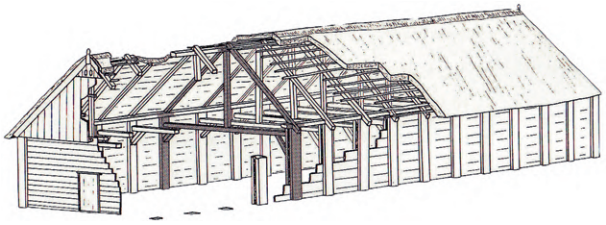

Fig. 8 Reconstruction of the aisleless timber hall. – (Drawing P. Bitter, 1983; Erfgoedcentrum Zutphen, team archeologie).

A Church?

An intriguing observation was the frequent presence of lumps of tuff stone among the burnt material in features associated with the Viking attack on and around 's-Gravenhof square. Furthermore, one brick carried a fragment of a Roman legionary stamp. The letters AMI..., read in reverse, are part of the abbreviation LEGIMA (Legio I Minerva Antoniana) which can be dated to the period AD 212–222. The Zutphen brick thus represents building rubble imported from the Roman ruins of Xanten or Nijmegen. In a 9th-century context the recycled tuff stone and the Roman brick could well be part of a church building. It was also evident from the archaeological record that the rubble had been pushed into the various pits from the east, the core of the settlement and the location of the present St Walburgis' Church. Both the tuff stone and the Roman bricks most likely derive from a small 9th-century church which stood on the same location as the present church and was destroyed together with the surrounding settlement.

Metal Production and Metal Working in Zutphen

Of all the crafts practised in the Carolingian settlement at Zutphen the best documented are metal production and metal working. In part this is because the metal production and metal working leave behind many archaeological traces in the form of ovens and kilns, smithing forges, slags, kiln lining, and of course the final products. The sandy soils in the Zutphen area are unlikely to preserve archaeologically recognizable traces of large-scale bone working and textile production, for instance, although fragments of 10th to 11th-century linen smoothers from a yard identified during the Zutphen town hall excavation suggest some form of high-quality textile production (Koster 2011).

Smithing waste products, especially of iron working, were encountered in 9th to 12th-century features at nearly all excavations inside the Zutphen circular fortress. Listing them all would be impractical, especially since no detailed analysis of the slag material has been carried out so far.

The Zutphen town hall site produced convincing evidence for iron working to the north of the main residence (Koster 2011, 89–96). The Carolingian house plot excavated in the trench there produced many traces of metal production (iron, lead, copper/bronze) (Groothedde 2013b). Not only slags but also kiln lining and fragments of crucibles and cupels were common. The plot contained a cluster of sunken huts and rubbish pits; one large pit between two huts (Sunken Hut 1 and 4) produced limonite, iron slag, maghemite (bog iron that has been roasted to remove the primary contaminants, leaving the iron magnetic), lead, bronze, and bronze slag (**fig. 9**). Fragments were found of several small ovens which had been dismantled after having been used to refine bronze and lead. This suggests that tin-copper and lead arrived at Zutphen as ores which needed to be refined, rather than as ready-made bronze which could simply be melted. Sources of tin-copper (stannite) are known in southwestern England (Cornwall) and the Erz Mountains (Zinnwald). In the case of the Zutphen material the latter location is unlikely, since the mines in the Erz Mountains were not productive until after AD 1000; before, they were part of Slavonic territory. A source in southwest England is more probable.

Some kiln lining fragments showed traces of lead that contained copper, which means that lead was also being refined. Put together, the evidence points to the production of iron, lead, and copper/bronze as one of the settlement's functions (**fig. 10**) whereby the latter two metals were brought to the site from a great distance as ores. A large cupel with traces of lead and silver suggests cupellation (purification) of silver, leaving behind the lead as a contaminant.

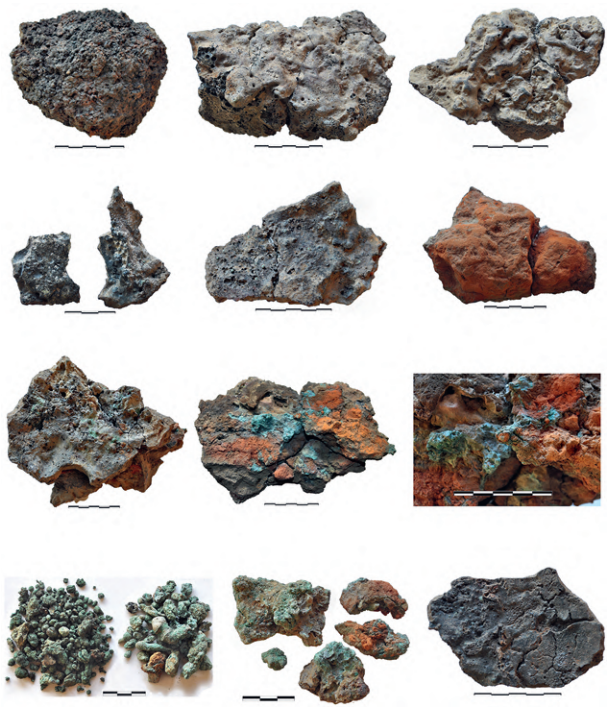

Fig. 9 Collecting metal production waste from the Carolingian rubbish pit at House 1 (Zutphen town hall, S5-3-084). – (Photos Erfgoedcentrum Zutphen, team archeologie).

Fig. 10 Carolingian smiths at work, as depicted in the Utrecht Psalter. – (Source psalter.library.uu.nl/page/20 [21.07.2025] p. 20).

The kilns and ovens, casting facilities and smithies themselves were probably located nearby, where several shallow pits containing large quantities of charcoal were found (Koster 2011). Another potential source of bronze may have been Roman (and other) objects, such as the little figure of a sphinx left behind when Hut 3 was destroyed.

Some of the excavations to the north of Zutphen town hall also produced convincing evidence for smithing, including the trench at Kolenstraat 7 (**fig. 1b, 6**; Groothedde 2003). There, a late-9th-century sunken hut yielded both furnace slags and forge slags. Subsequent settlement layers from the 10th/11th century, when a large building occupied the same site, produced hardly any slag, but fragments of two cupel used to cupellate silver came from one of the building's postholes (Groothedde 2013b).

Smithing activities were not limited to Zutphen; slag is also a common find in surrounding settlements. Interestingly, however, at Merovingian and Carolingian sites outside Zutphen slag materials are rare or completely absent (Groothedde 2013a, 284), while they tend to be abundant at 10th to 12th-century sites/phases. This represents an interesting shift around AD 900 of iron production and metal working away from the centre, the Zutphen fortress, to the surrounding countryside. After AD 900 metal working continued in Zutphen on a modest scale, but at rural sites iron production and metal working became important activities.

The large-scale extraction and processing of iron and other metals required huge quantities of fuel. At the 9th-century Looërenk site near Zutphen (**figs 11-12**), c. 350 pit kilns within a short time converted an entire oak wood into high-quality charcoal (Groenewoudt/Groothedde 2008, 276–288; Groothedde 2013a, 284–289). Generally speaking, the ratio of wood versus charcoal is assumed to have been 7:1 in the Roman period (Cleere 1976, 240). In the case of the Looërenk this implies that within a few decades roughly 245,000 kg of wood was being converted into c. 35,000 kg of charcoal. The Looërenk pit kilns are not unique although this is the only fully excavated site. Three other pit kilns were discovered in 2010 at the Wolfelerenk site (Fermin 2011, 65–66); a radiocarbon date from one of the pits corresponds to the date of the Looërenk. Only c. 0.25 ha were excavated at the Wolfelerenk, while the estimated total area of the site was 40 ha. The three excavated pit kilns thus represent a mere 0.83 % of the total, assuming the distribution of pit kilns across the site to have been similar to that at the Looërenk. This would bring the total number of pit kilns at Wolfelerenk to 480, representing 48,000 kg of charcoal obtained from 336,000 kg of wood. In 2004 a small excavation at the Oysham site, Laan naar Eme, revealed yet an-

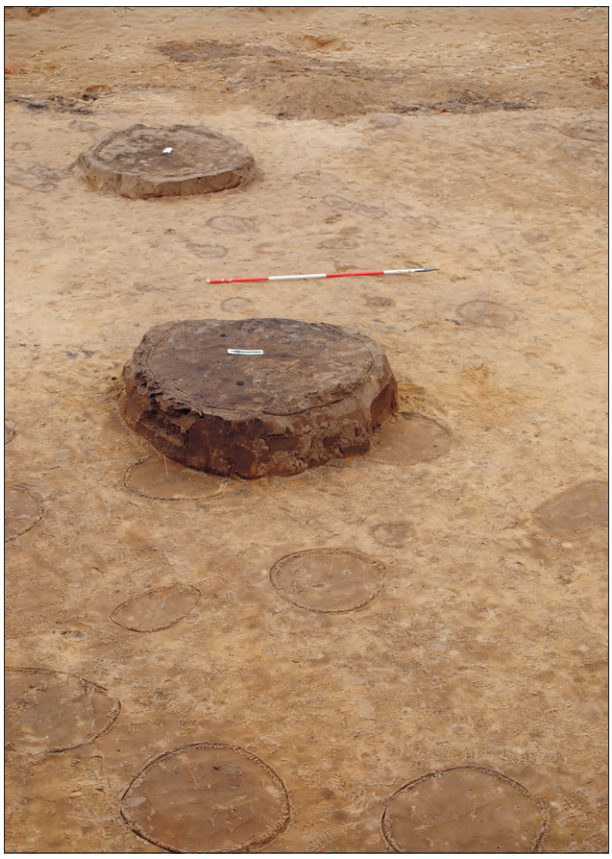

Fig. 11 Excavated remains of two charcoal pit kilns; Voorsterallee site, 2010.– (Photo Erfgoedcentrum Zutphen, team archeologie).

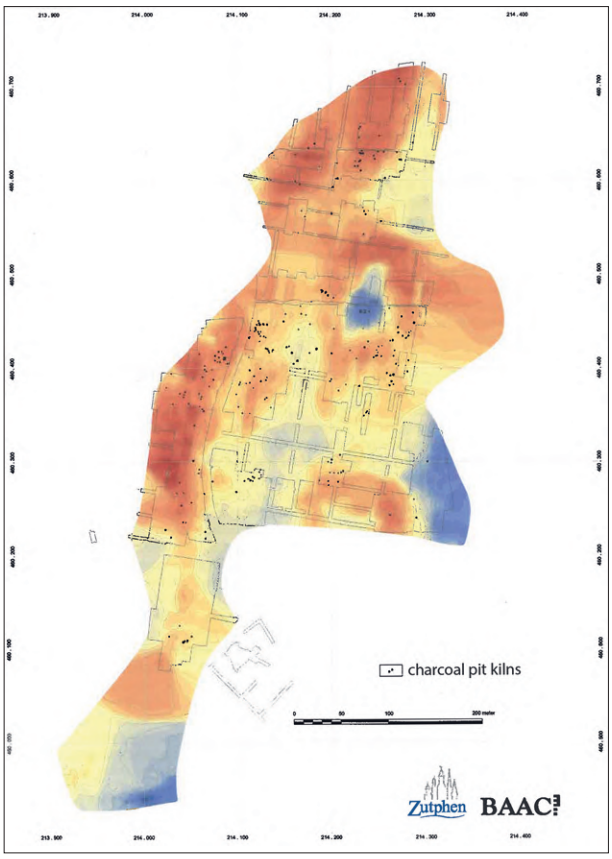

Fig. 12 Reconstructed contour map of the Looërenk area, showing the location of the 247 identified charcoal pit kilns. – (BAAC bv [Den Bosch] and Erfgoedcentrum Zutphen, team archeologie).

other pit kiln (Fermin/Groothedde 2004. 5–6). The excavated area at Oysham was even smaller than that at Wolfelerenk, but this single kiln is unlikely to have been the only one at the site. All in all, we may conclude that in the second half of the 9th and the 10th century charcoal production was a very common activity on what were then forested cover-sand plateaus and river dunes around Zutphen.

Who Destroyed Zutphen, and When?

By combining several different chronological clues from the 1997 town hall excavations in Zutphen we can zoom in on the exact moment when the tragedy occurred. First, the pottery suggests a date in the second half of the 9th century, but the absence in the context of the Viking attack of the characteristic Hunneschans and early Pingsdorf wares indicates a date before c. AD 890. In Deventer and Tiel, these wares first appear towards the end of the 9th century (Sanke 1999; 2002, 179–183; Mittendorff 2007, 191–194).

Second, the small bronze Northumbrian coin provides a post-quem date for the drama of AD 840/844. Third, a quantity of charred cereal grains found next to the skull of the child on the bottom of the sunken hut – the same charred grains that accompanied the Northumbrian coin – produced a radiocarbon date range from c. 880 until well into the 10th century. Since the abundant pottery at the site rules out a 10th-century date, the most likely actual date corresponds to the peak in the calibration curve of AD 880–900, and based on the pottery most likely to the first part of that period.

Together these indications strongly suggest that the destruction and massacre at Zutphen in the late 9th century resulted from a Viking attack during the tumultuous years between AD 879 and 885 (**figs 13-14**). At that time Danish Viking leader Godfrid controlled the central Dutch river floodplains, and a wave of Viking raids penetrated far into the Rhineland (Henderikx 1995, 88–94; see Grunwald, this volume). One date that comes to mind is 882, the year of the historically documented plundering and

Fig. 13 The Zutphen Viking attack. – (After comic strip by F. Marschall, Amsterdam, in the magazine Quest, February 2011).

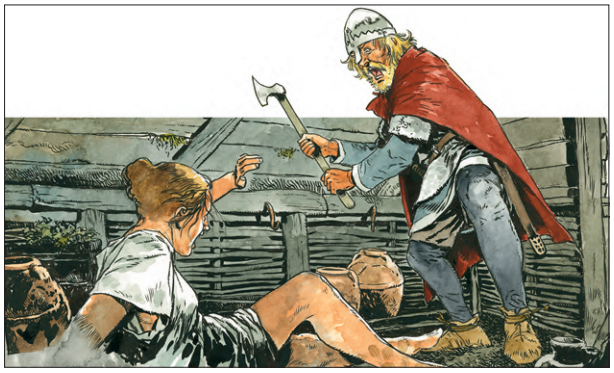

Fig. 14 A female resident of Zutphen (the skeleton in Sunken Hut 3 of **fig. 1b, 4**) falling victim to the Viking onslaught. – (After comic strip by F. Marschall, Amsterdam, in the magazine Quest, February 2011).

destruction of the trade centre of Deventer: »*Nordmanni portum, qui Frisiaca lingua Taventri nominatur, ubi Sanctus Lioboinus requiescit, plurimis interfectis succenderunt*« (Annales Fuldenses, 118; »The Norsemen plundered the trade port, called Deventer in the Frisian language, and the resting place of Saint Lebuinus, and many people were killed there«). It seems highly unlikely that a Viking raiding party on its way to Deventer would ignore a fairly large settlement with an impressive aristocratic residence and a church, both suggestive of the presence of large agricultural stores and secular and ecclesiastical wealth.

Additional arguments in favour of a Viking attack in or around 882 are the actions of Count Everard »Saxo« (the Saxon) of Hamaland in 885, his elevation to the rank of duke in 886, and the construction of the Zutphen circular fortress right on top of the destroyed settlement (see below).

Finally, we can speculate as to the identity of the Vikings who »visited« Zutphen. The little bronze coin from York constitutes an exceptional find on the continent and definitely was not part of the usual range of Carolingian silver pennies in circulation at the time. However, they are quite common at Viking encampments in England, such as Torksey (Hadley/Richards 2013). The Viking raids after 879 were mainly carried out from Northumbria, and this coin may therefore have been carried along by the raiding party responsible for the destruction of Zutphen, and lost there. York had been under Viking control since 866, during the reign of Aethelred II. By 879, when a large band of Vikings – with the little coin – set out for Lower Lotharingia, Jorvik was already a major Viking trade centre.

Another striking aspect of the Zutphen settlement is the large number of lower legs and skulls of cattle that emerged from the sunken huts. The skeleton of the adult human person in Sunken Hut 3 was surrounded by no fewer than seven bovine skulls and even more lower legs. The skulls had evidently been deliberately bashed in. Both the skulls and the leg bones suggest that cattle were being slaughtered indiscriminately and regardless of age so as to acquire, and presumably carry off, the edible portion (Rompelman 2007). The expeditions after 879 often lasted several years and extended deep into the hinterlands of the Franconian realm. Raids were conducted from various winter quarters and sometimes covered long distances over land whereby the ships remained moored in the rivers to serve as a base of operations and a gathering place for loot. Securing sufficient food supplies was always an issue, and many raids concentrated on finding food rather than precious objects (Henderikx 1995, 93–94). Food shortages were always a risk, and in 892 a famine forced the Viking army to return to England. It is highly likely that Zutphen, as a central location where supplies in the form of grain and livestock from the surrounding demesnes were stored in large quantities, was the main target of the raid. But the large amounts of iron and other metals, both semi-finished and finished products, were undoubtedly equally tempting.

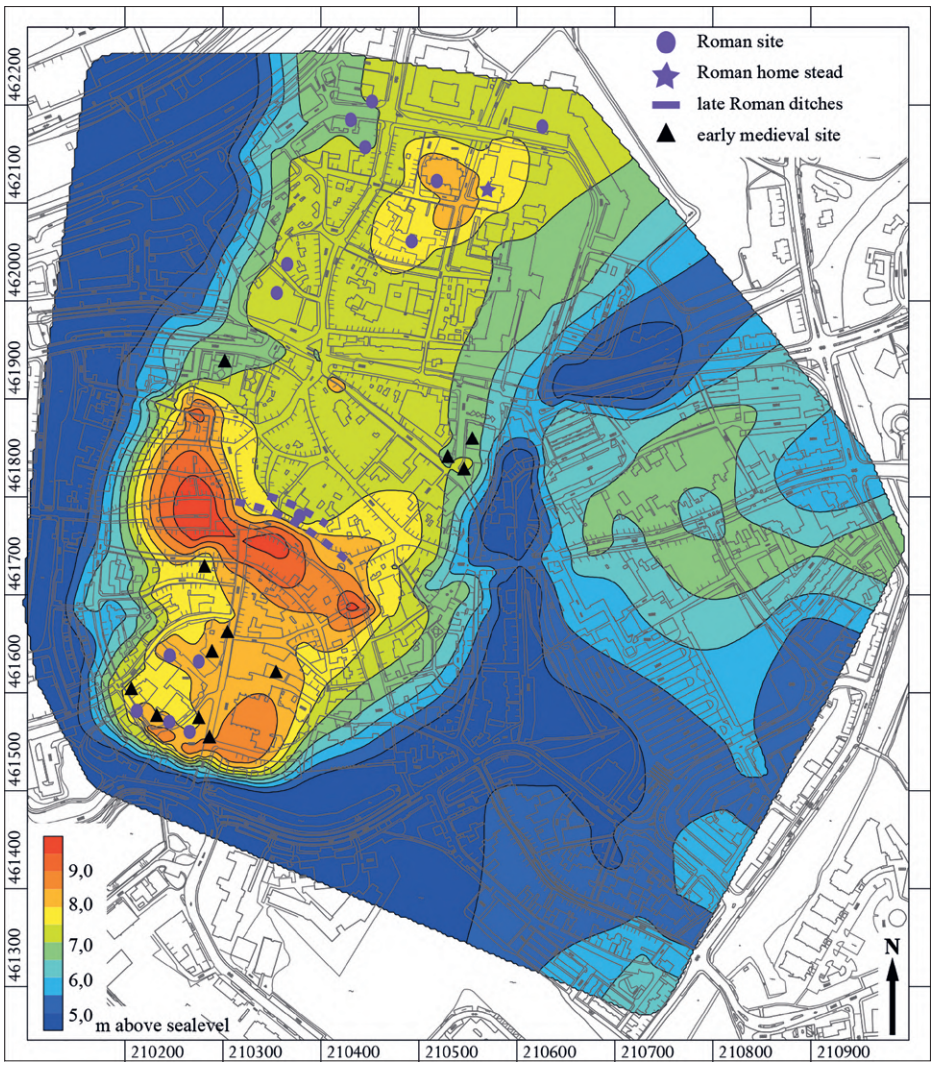

Fig. 15 Roman and early-medieval settlement features and finds from the river dunes underlying the modern centre of Zutphen. The area of 's-Gravenhof square has been continuously inhabited since the 3rd of 4th century, when the settlement became surrounded by a moat or ditch. – (Map Erfgoedcentrum Zutphen, team archeologie).

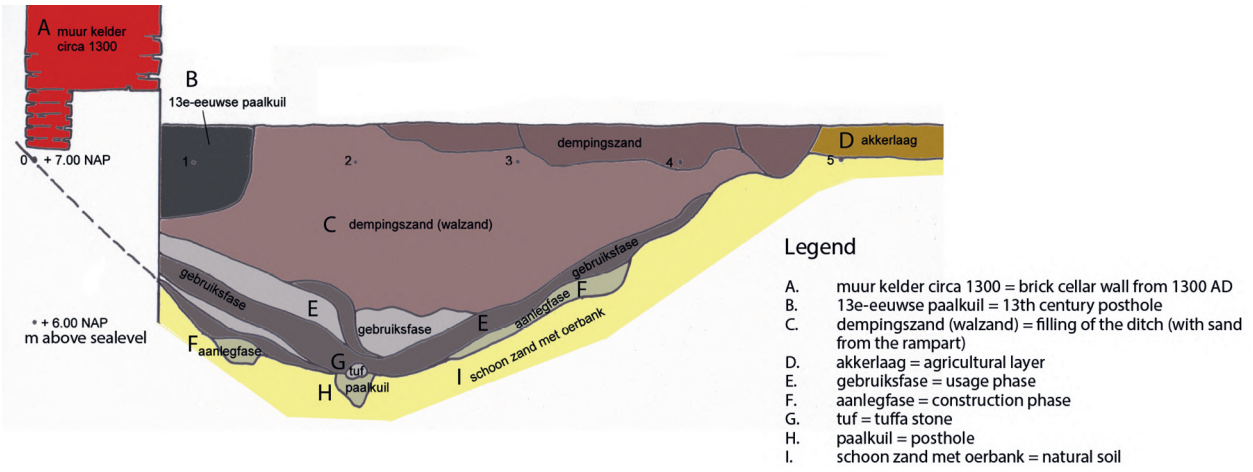

Fig. 16 Cross-section of the V-shaped northern ditch identified below the premisses of Houtmarkt 63 (**fig. 1b, 13**). The sample producing a late-Roman radiocarbon date came from the lowermost cultural deposit. – (Plan Erfgoedcentrum Zutphen, team archeologie).

The Zutphen Circular Fortress up to AD 1000

Today Zutphen's chain of market squares Groenmarkt, Houtmarkt and Zaadmarkt (**figs 1. 15**) forms a conspicuous semicircular shape which early on raised speculations as to whether it marked the course of a filled-in ditch or moat of the earliest settlement. Such a ditch/moat was indeed identified

Fig. 17 Excavations in 2004 in the cellar of the premisses Houtmarkt 69 (**fig. 1b, 12**). The V-shaped cross-section of one of the pre-Carolingian ditches is visible underneath the rubble infill. – (Photo Erfgoedcentrum Zutphen, team archeologie).

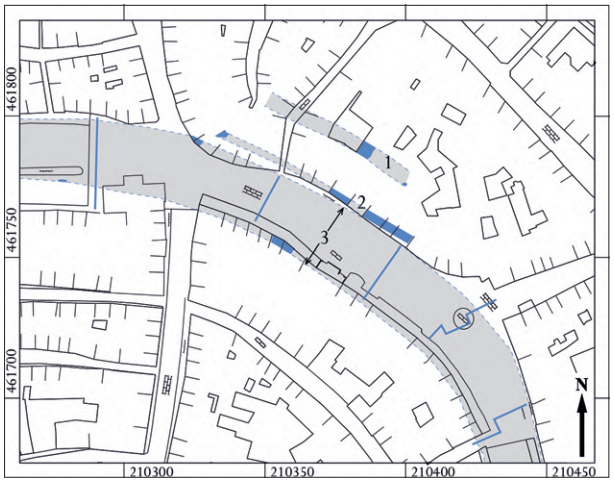

Fig. 18 Reconstructed course of the pre-Carolingian ditches (**1-2**) and the ditch of the circular fortress (**3**) in the Houtmarkt area. Ditch sections actually identified in corings and excavations are indicated in blue. – (Plan Erfgoedcentrum Zutphen, team archeologie).

during excavations on Groenmarkt square in 1946 (**fig. 1b, 10**), in the cellars of the Houtmarkt properties nos 47, 49 (**fig. 1b, 14**), 54 (**fig. 1b, 8**), 56 (**fig. 1b, 9**), 63 (**fig. 1b, 13; 16**), 67–71 (**fig. 1b, 12**) in 2003–2008, and during a 2004 coring survey on Houtmarkt square (**fig. 1b, 11**) (Fermin/Groothedde 2006). Cellar excavations (**fig. 17**) along the outer perimeter of Houtmarkt square (**fig. 1b, 12-14**) additionally revealed

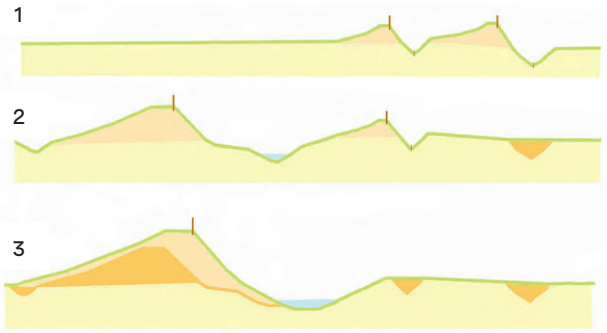

Fig. 19 Cross-sections of the different stages of the fortifications in the Houtmarkt area. – **1** The double pre-Carolingian V-shaped ditches and ramparts. – **2** The first phase of the circular fortress, late 9th century. – **3** The 11th-century renovation of the circular fortress. – (Plan Erfgoedcentrum Zutphen, team archeologie).

traces of two V-shaped dry ditches c. 5 m wide by a depth of c. 2 m (**fig. 18**). Although their exact course is unknown these ditches (and their associated ramparts) seem to have cut across the end of the sandy ridge, making the earliest phase of the settlement at Zutphen a promontory fort (Fermin/Groothedde 2008). The lowermost infill of the ditch produced a surprising radiocarbon date in the 3rd or 4th century AD, which happens to coincide with the date of the earliest documented settlement phase in Zutphen inside these ditches (**fig. 15**). The Franconian settlement in that area may well have been fortified from the start (**fig. 19, 1**) and functioned as an aristocratic power base, a so-called Franconian Herrensitz. Although situated beyond the Roman *Limes* the shape of this earliest Zutphen ditch appears to derive from the V-shaped defensive ditches customary in the Roman period. The Franconian ditches still existed in the Carolingian period, one segment even continued into the 11th century (**fig. 19, 3**).

The Carolingian fortifications, identified in 1946 and surveyed by coring in 2004, consisted of an earthen rampart 20–25 m wide at the base, and a ditch with a width of 18 m wide and a depth of 4 m (**fig. 19, 2**). The circular defences were constructed inside the earlier fortifications so that the settlement would be protected while construction was still ongoing. The main ramparts were situated below the rear sections of the modern buildings lining the market, towards Rode Torenstraat and Kolenstraat. The first fragment of the earthen ramparts was identified in 1995 during a small cellar excavation at the premisses of Houtmarkt 54 (**fig. 1b, 8**) (Fermin/Groothedde 2006, 82–86), while a ditch segment could be studied in detail in the cellar of the adjoining house Houtmarkt 56 (**fig. 1b, 9**). Pottery finds gave a construction date for the ditch in the late 9th century. The ramparts and ditch followed the exact contours of

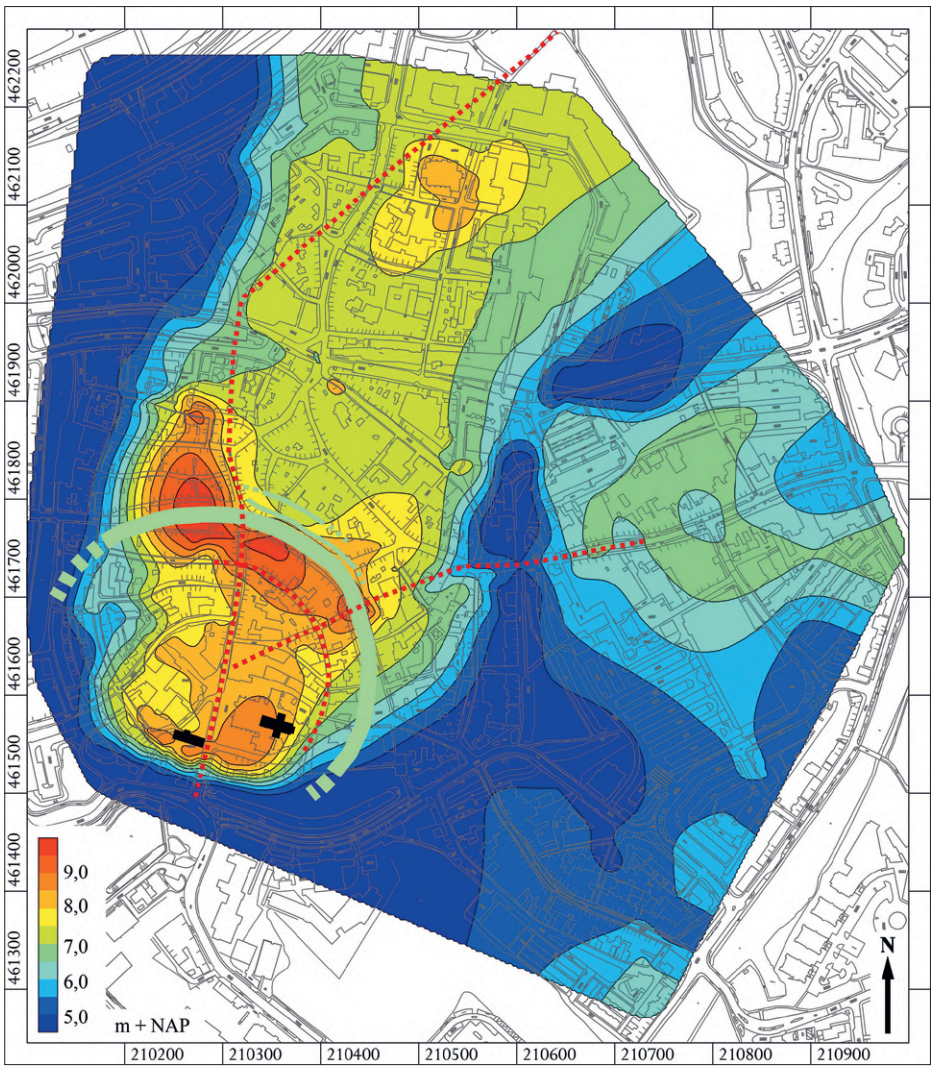

Fig. 20 Situation of the ditch of the circular fortress on a contour map of the river dune complex underlying the centre of modern Zutphen, plotted onto a large-scale base map (Grootschalige Basiskaart). Reconstructed late-Carolingian roads and streets are marked in red stippling. The timber hall and (hypothetical) church are indicated in black. – (Map Erfgoedcentrum Zutphen, team archeologie).

the southern spur of land on which the aristocratic residence, church and settlement were situated.

It is likely that the semicircular outline of the defences which can be traced topographically and archaeologically was originally fully circular. This is confirmed by the perfect fit between the segments of the round fortress still preserved in the town's modern topography, specifically the building lines of Rode Torenstraat and an adjoining section of Groenmarkt and Zaadmarkt. The fortress' southern edge is known to have suffered extensive erosion in the 13th and early 14th century by the river IJssel, and there is some evidence that the river has swallowed part of the early-medieval settlement (Groothedde 1999b, 191–197; Groothedde/Hermans 1999, 133–135). The reconstructed round fortress with its defences covered an area of 12 ha on the banks of the IJssel; the settlement area itself occupied c. 7 ha. The fortress' northern entrance was situated on the highest point (**fig. 20**), the top of the river dune between the later buildings Huis Gelre and Wijnhuis. The modern road Lange Hofstraat, running north-south, was the central main access route to the aristocratic residence and on towards the IJssel ferry (**fig. 21**). On its way the road passed the comital timber hall to the right/west and the parish church, predecessor of the present St Walburgis' Church, to the left/east. Lange Hofstraat did not run across the exact centre of the fortress but slightly to the east; the true centre lay roughly in front of the modern town hall, just west of Lange Hofstraat and just north of the timber hall on 's-Gravenhof (**fig. 22**). It seems the fortress' layout was decided not only by existing structures like the residence and the church but also by the geomorphology of the river dune. The roads Rode Torenstraat and Kolenstraat followed the inner face of the main ramparts. From the east a second road entered the fortress, near the present alleys Ravenstraatje and Raadhuissteeg. Significantly, the northern and eastern segments of the main rampart coincide with the highest part of the river dune while the ditch was dug into its slope – the ground surface on the landward side runs down towards the Berkel valley (**fig. 23**). Clearly the possibilities offered by the nat-

Fig. 21 Aerial photo of Zutphen, 1999. The white awnings of the market stalls pick out the course of the ditches of the circular fortress, while Lange Hofstraat marks the fortress' north-south axis, terminating at the square 's-Gravenhof and the precinct of St Walburgis' Church. – (Photo KLM AEROCARTO 07-01-1999 film 2905/line 005/photo 2269).

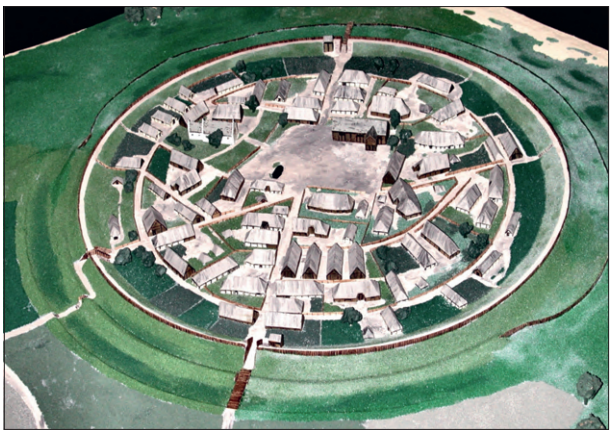

Fig. 22 The Zutphen circular fortress seen from the north. A striking element is the square, cleared for the benefit of the rebuilt timber hall, with Lange Hofstraat heading towards it. – (Model C. J. Willems; Erfgoedcentrum Zutphen, team archeologie).

ural terrain were deliberately exploited to maximise the difference in height between the ramparts and the area outside.

The 2004 coring survey on Houtmarkt established that the ditch was just deep enough to reach the groundwater table. Whether or not the ditch carried water remains an open question, however, for its bottom layers were also the source of the loam that lined the ramparts.

Zutphen was not the only settlement to be fortified in response to the Viking raids. In Deventer, 16 km to the north (see **fig. 26**), the monastery and the surrounding trade centre (*portus*) were also equipped with substantial oval ramparts which influence the town's topography even today (Bartels 2006).

The construction of circular fortresses during and in the aftermath of the Viking raids of 880–892 is well-documented both historically and archaeologically. A long chain of such strongholds was built along the Belgian-Dutch coast and the major rivers all the way from Sint-Winoksbergen in northern France to Den Burg on the Dutch island of Texel. In Flanders and the Dutch province of Zeeland in particular, these fortresses cluster along the main coastal shipping routes (Oostburg, Middelburg, Oost Souburg, Domburg, Burgh-Haamstede: van Heeringen et al. 1995; Henderikx 2002). Most if not all of them were situated on crown land (Walcheren, the Meuse and Rhine estuaries [Dijkstra 2002, 17–19] and Den Burg). The construction of these fortresses should therefore be viewed in the context of a royal initiative implemented by local administrators (counts, monastic establishments) to organise an adequate defence against Viking incursions. Archaeological evidence places these strongholds in the final quarter of the 9th century, and most likely the period 880–890 (van Heeringen et al. 1995, 37–39; Henderikx 1995, 101). A contemporary source, the Miracula Sancti Bertini, mentions a Viking attempt in 891 to conquer the coastal *castella ibi recens facta* (»the fortresses recently built there«) (Miracula Sancti Bertini, c. 6, 512). Urban settlements – often episcopal and monastic centres – throughout Lower Lotharingia and West Francia were being fortified during the years 880–890 (Henderikx 1995, 101). The ramparts in Deventer, seat of a canonry, were built around the same time, probably immediately after 882 (Groothedde 1998; Bartels 2006).

The similarities between the Zutphen fortress and the circular coastal strongholds are striking. Like the coastal sites, Zutphen appears to have been a planned fortification built for the protection of a larger population than just local residents. Unlike the Zeeland fortresses, however, in Zutphen spacious defences encompassed an existing settlement with a comital administrative centre. The 1946 excavations on 's-Gravenhof square (**fig. 1b, 1**) showed that the aisleless timber hall destroyed by fire during the 882 Viking attack was replaced by a larger, two-aisled one (**fig. 24**) that was succeeded in its turn by a tuff-stone *Pfalz* in the 11th century. The surrounding settlement, too, continued without interruptions. In this respect the Zutphen stronghold rather resembles the royal fortified *Pfalz* centres in northern and central Germany, particularly those of Tilleda in Kyffhäuser, Werla on the river Oker, and Grone near Göttingen (Streich 1984, 153–156. 159–162). Another Hamaland fortress and comital residence, at Hoog-Elten (**fig. 25**), was likewise fortified around AD 900

Fig. 23 Impression of the Zutphen circular fortress around AD 900, when it was one of the power bases of the counts of Hamaland. The fortress sits on the edge of a river dune complex jutting out towards the river IJssel (to the left) near its confluence with the Berkel (to the right). Top-left are the fossil channels which according to Cohen et al. 2009 were formed during the avulsion of the IJssel. The area around the (new) Berkel mouth was a wet alder carr, called Polsbroek (broek = carr). The low-lying marshy »fens« of the IJssel foreshore gave Zutphen its name: Zut- + -fen, or »south fen«. The arable fields of the »Zutphense Eng« emphasise the sandy ridge of the fortress. In the background, smoke plumes rising above the forest canopy betray the location of the pit kilns that produced the charcoal for the iron works. A tuff-stone church (today St Walburgis' Church) and a comital timber hall bordered resp. stood on the square (now 's-Gravenhof) at the heart of the fortress. In the first half of the 11th century the hall was rebuilt as a tuff-stone royal *Pfalz*. The square itself was the stage for open-air court sessions and markets. – (Reconstruction and illustration U. Glimmerveen).

and resembles Zutphen in its construction development (Binding 1986, 3–9). A remarkable element at both Zutphen and the royal circular fortresses in the German area are the many sunken huts. These probably housed the serfs and other dependents connected to the fortress and mainly employed in craft activities. At Tilleda the number of huts runs into the hundreds, compared to only a handful of traditional timber-post buildings in the *Pfalz*' two outer baileys (Eberhardt/Grimm 2001; Dapper 2007).

The Counts of Hamaland and the Establishment of the Zutphen Circular Fortress

Historical sources allow us to narrow down the construction date of the Zutphen fortress even further. Genealogical studies made clear that the famous Hamaland count Wichman II of Elten (died between 975 and 980) came from a dynasty which since at least the second half of the 9th century had occupied comital positions in Hamaland and owned extensive property there. The sources repeatedly mention the Hamaland counts as the most important aristocratic family in what is today the eastern Netherlands. Hamaland comprised a large area: the modern Veluwe plateau, the IJssel valley, Montferland, the Achterhoek region, and the German borderlands (Heidinga 1986; Wirtz 1971, 16–31. 173). The name Hamaland itself is a reference to the ancient Franconian tribe of the Chamavi or »Hamalanders«. Many counties were part of this area, among them the IJsselgouw (mentioned in the source) around Zutphen, and the trade centre Deventer.

The first count of Hamaland to be mentioned, in 855, is Wichman I. There is some uncertainty as to whether he was the father of Count Meginhard I, mentioned in 881. Meginhard's son Everhard I »the Saxon« played an important part in the struggle against the Vikings (see below). Everhard I had a brother, Meginhard II and he was probably the father of Meginhard III and the grandfather of Wichman II, although other Hamaland studies have

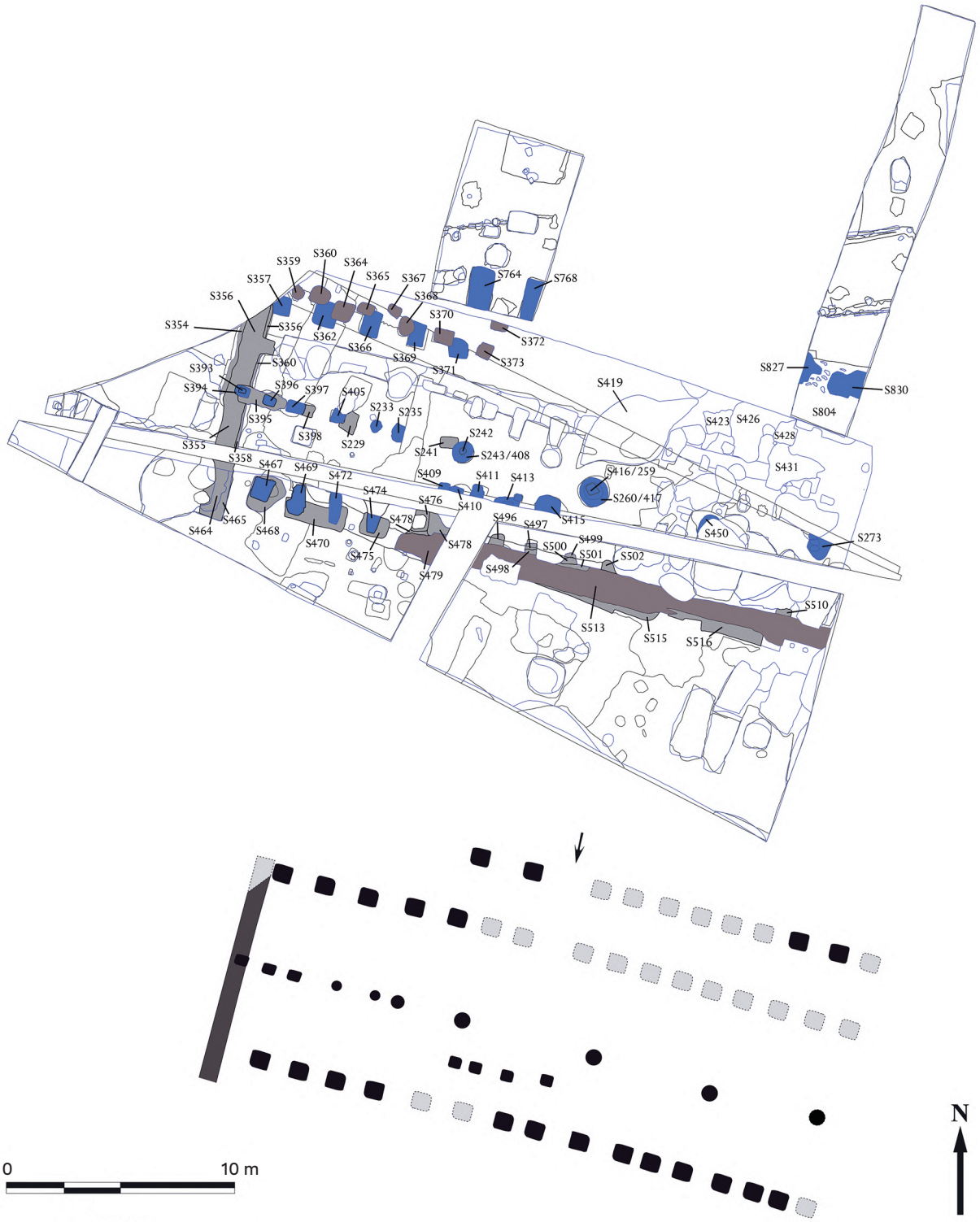

Fig. 24 Trenches 1, 2 and 3, Levels E and F of the 1946 excavations (**fig. 1b, 1**), showing the traces of the two-aisled timber hall. – **Grey** Foundation trenches and wall trenches. – **Blue** Removed posts. – **Dark blue** Posts. – **Brown-grey** Secondary posts and demolition trench of the south wall. – Below, a simplified reconstruction of the original plan. – (Plan Erfgoedcentrum Zutphen, team archeologie).

come to slightly different conclusions as to the exact family relationships (Wirtz 1971, 7–84; van Winter 2001; Verdonk 1990, 27; Jongbloed 2006). Their family connections and marriage policies placed the Hamaland dynasty firmly among the highest aristocracy of Lotharingia and later the German Empire. Necrologies of the counts of Hamaland and their relations, such as those compiled by Reichenau Abbey, secured their status for future generations (Verdonk 1990).

Count Everhard I »the Saxon« (murdered in 898) was captured during the siege of the Nijmegen Valkhof stronghold by Viking King Godfrid in 881, and Everhard's mother Evesa paid a substantial ransom for his release. Regino of Prüm states that the Viking raids had resulted in the plunder and destruction of many of Everhard's properties, and his comital authority in the IJssel region had evaporated. This gave Everhard ample motive to avenge himself and it explains his participation in a plot against Godfrid. Godfrid had issued a demand to Emperor Charles the Fat (884–887) to grant him landed estates in the wine region along the Rhine (see Grunwald, this volume), and in 885 a meeting was duly arranged between Godfrid and Duke Henry the Babenberger, responsible on behalf of the king for the defence of the realm against the Vikings. Duke Henry's entourage included Willibert, Archbishop of Cologne, and Count Everhard of Hamaland. In the course of the meeting, near Spijk on the Rhine, Godfrid was murdered and Duke Henry, Count Everhard and his followers cleansed the entire river area of all Viking presence (Regino of Prüm, Chronicon, 266–268).

In 886 Duke Henry himself died in battle against the Vikings near Paris. It seems that by that time Charles the Fat had transferred responsibility for the defence of the river area to Everhard, who was subsequently made duke and is referred to as such (*dux*) in 886. In 898 Everhard himself was murdered and Emperor Arnulf of Carinthia (887–895) gave the function of duke to Everhard's brother Meginhard (Regino of Prüm, Chronicon, 266–268). After AD 900 Meginhard's ducal title is no longer mentioned (sources from 914 and 917 refer to him as »count«), probably because the Viking attacks were diminishing.

Once the Vikings had been pushed out of the northern part of Lotharingia and Hamaland Duke Everhard assumed responsibility for the area's defence. It was probably he who built the Zutphen circular fortress and in all likelihood also the ramparts of the royal town of Deventer. Also, the stronghold at Hoog-Elten (dated c. 900) is being ascribed to either Duke Everhard or Duke Meginhard (Binding 1986, 8). The year 886 as a foundation date for the Zutphen fortress, shortly after Everhard's elevation to duke, would perfectly match the archaeological record. It also tallies exactly with the construction of the coastal defences. A duke (*dux*) answered directly to the king, and it is highly likely that Zutphen and Deventer were fortified by orders of the king. Among other matters a duke was charged with organizing the defence against outside attacks and with safeguarding the privileges and possessions of the king and the Church. Moreover, as *dux* of »Frisian«

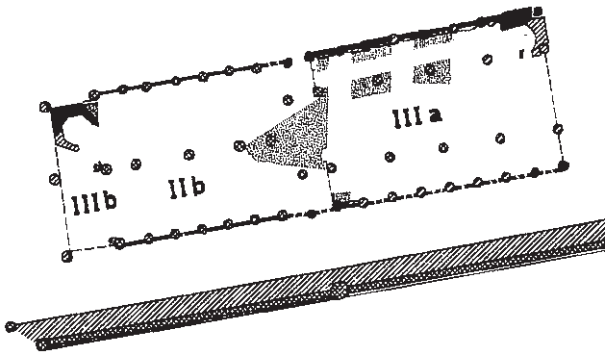

Fig. 25 Hoog-Elten, timber hall (Palas) Phase IIIa. – (After Binding 1986, 5 fig. 5).

Lotharingia, Duke Everhard probably also had a hand in the coastal defences on the crown lands of Walcheren, the Meuse and Rhine estuaries, and the island of Texel. Under King Charles the Fat the entire Carolingian empire was briefly reunited (884–887), and after his abdication the lands north of the Schelde became part of the East-Franconian territories. No doubt local counts and monastic establishments were drafted to implement the construction of the fortresses, as they could counter Viking blitz attacks much more effectively. This situation lend itself to clever exploitation by local rulers eager to act with greater independence in their own territories, eroding royal authority in the process.

In the case of Zutphen, yet another party may also have been involved in the fortification. According to an 11th-century inventory – the authenticity of which is disputed – drawn up by order of Abbot Saracho, the abbey at Corvey acquired possessions in Zutphen already in the late 9th century (Groothedde 2013a, 77). This 11th-century property list was based on an earlier one allegedly dating to the period AD 887–899. Under *Sutfeno in pago Hamelant* it mentions four personal names, *Hemigo, Maggo, Wibald et Redbold*, introducing us to four Carolingian residents of Zutphen. These individuals were probably peasants, in this case *milites agrarii* (free farmers living and working on crown land and providing military services in vassalage) who owed to Corvey Abbey the annual dues listed in the document (grain, cloth, sheep, and one lamb). Count Otto II (1063–1113) of Zutphen was bailiff of Corvey's western possessions. Although this situation applies to a later period it may well reflect older ties between the comes in this area and Corvey's monastic estates. Corvey had likely been given shared ownership of estates around Zutphen, possibly by a Hamaland count, for it was precisely in the 980s that royal exclusive control over monasteries was being undermined by the aristocracy (de Jong 1995).

Fortress Construction in a Wider Context: »Burgenordnung« and Burghal Hidages

The organization of the fortresses' defence can be deduced from the so-called Burgenordnung, part of the *Widukindi res gestae Saxonicae* I 35. This text fragment is quoted under the entry for AD 926 in the context of the East Franconian (German) empire's eastern border skirmishes against Slavonic and Hungarian tribes (Bauer/Rau 1977, 68–69; Jäschke 1975). Of each group of nine farmer-warriors, one (»*primum* […] *ex agrariis militibus nonum*«) was to be stationed in the fortress and made responsible for arranging accommodation for his eight colleagues in an emergency, and for collecting one third of their harvest and store it in the fortress. The king (Henry I the Fowler, 919–936) ordained that all court sessions, fairs and feasts had to take place inside the fortress; no permanent structures were allowed immediately outside its ramparts. These stipulations imply that the farmers of the demesnes had to provide military services and as such were crucial both to the fortresses' defence and to its provisioning. In peacetime, the ninth farmer was responsible for the construction and maintenance of the defences and of the buildings inside them. In times of war, the other farmers and their families and retinue would retreat inside the fortress, where food and accommodation had been pre-arranged for them. This *Burgenordnung* »[…] was implemented in peacetime so as to be prepared for war« (*Burgenordnung* fragment in *Widukindi res gestae Saxonicae* I 35). Although referring to the organization of the fortresses in the east of the realm in 926, this statement applies equally to the fortresses in Lower Lotharingia where it had been successfully implemented against the Vikings since c. 890 (Jäschke 1975). Similar systems of recruitment on behalf of the national defence were hardly new; they had been in place since the Viking raids intensified in the early 9th century (Jäschke 1975, 31–33). King Henry the Fowler was familiar with the fortress system in Lower Lotharingia. Only a few years before, in 925, he had added the counties of Lower Lotharingia to his realm after a series of campaigns, and his sister Oda was married to King Zwentibold of Lotharingia under whose authority the fortress system had been completed. Oda also owned extensive properties in and around Deventer, possibly as a wedding gift from her husband (van Vliet 1996, 15).

The relocation of the bishop of Utrecht to Deventer should also be viewed in the context of the new military organization of the defence of the realm and of the construction of new strongholds. The bishop had already left Utrecht during earlier Viking attacks in 857, but the city was hardly deserted, for even bishops who died in exile were still buried in the Utrecht St Salvator's Church. Where they resided in life in the decades after 857 is unknown (van Vliet 1996, 15; 2004, 140–141; Linssen 2008). Finally, Deventer became the episcopal see; certainly the bishops resided there after AD 985. The relocation of the episcopal see had become necessary after Utrecht's western possessions had fallen under Viking control, which robbed the Utrecht see of its income. On the other hand, the Utrecht bishops also owned extensive property in and around Deventer, and many of the episcopal merchants from Viking-occupied Dorestad had also taken refuge in Deventer. Nonetheless the most influential actor in the relocation was undoubtedly the king. Deventer was situated on the eastern borders of Lotharingia, and an episcopal see in Deventer would help to extend Lotharingia influence into its easternmost diocese. The Deventer merchant colony largely fell directly under the authority of the king. A document from AD 896 clarifies the relation between the king and the bishop in Deventer (Gysseling/Koch 1950, no. 187). In this document King Zwentibold affirms the bishop's claim to one tenth of the trade settlement Deventer, while the bishop himself had a separate clause inserted to the effect that the merchantmen's privileges (i. e. those »of St Martin«) would be the same as those they had enjoyed previously in Dorestad.

It was the construction of the Deventer ramparts and the presence of a strong secular ruler capable of an effective defence of this part of the realm in nearby Zutphen (Dukes Everhard and – later – Meginhard) that enabled the move of the bishop to Deventer. In the event of an emergency, the see could count on military support from the fortress at Zutphen.

Excavations inside the Zutphen »market ring«, i. e. inside the fortress, almost always reveal traces of the 10th-century settlement, despite the often-limited size of the trenches leaving many details of the settlement still unclear. Certainly, the density of features and finds in Zutphen is significantly less than in the densely populated trade centre Deventer. In Zutphen, the scattered farm houses, dwellings and barns were surrounded by many gardens and arable fields (Bitter 1985, 45. 112–114). Furthermore, the *Burgenordnung* implies that the population of a fortress was smaller in peacetime than it was in war. When all was quiet, only one ninth of the farmers of the demesnes would be living within the ramparts.

Yet that same area had to be large enough to receive all farmer-warriors of the demesnes in the event of a Viking raid. The 7 ha encompassed by Zutphen's ramparts were sufficient for this.

Starting in the 9th century locally sourced iron ores (limonite, bog iron) were being processed on a large scale and charcoal was being produced (see above). Extraction of the raw iron mainly occurred in rural areas, often near the source of the ore, while the raw iron was subsequently processed in the fortress of Zutphen and in some of the surrounding settlements. The iron production probably reflects the urgent need to supply weapons to the farmer-warriors, who were undoubtedly also involved in the nearby exploitation of the raw materials.

We can deduce the defensive role of able-bodied *milites agrarii* from a southern-English source, the Burghal Hidages (Hill 1969, 84–92; Jäschke 1975, 92–101), dating to the reigns of Alfred the Great, King of Wessex, and his successors. The English defensive system is thought to have originated in the period 878–892, which corresponds exactly with the fortress construction in Lower Lotharingia (Jäschke 1975, 94–100). The Burghal Hidages state that one able-bodied man should be available for each 1.25 m rampart section with the number of recruits from each shire depending on its size – one man for each hide. Interestingly enough, this recruitment of able-bodied men per shire mirrors that in the Franconian territories, where it was organised by comital demesne. The Burghal Hidages mention four able-bodied men per pole, a unit indicating a stretch of wall 16.5 feet long. For a 4,950-feet wall (1,500 m) this amounts to 1,200 defenders. Similarities between the English and Franconian defensive systems are not surprising, for King Alfred was closely linked by familial and political ties to the Carolingian rulers, as were his successors to the Ottonian dynasty (Jäschke 1975). Both realms were facing the same adversary and will therefore have copied each other's successful defensive strategies. Moreover, it would be pointless to construct large fortifications without being able to man them properly. This is also evident from the Burghal Hidages, where the number of listed hides each time tallies exactly with the archaeologically recorded lengths of the fortifications concerned (Hill 1969, 91; Jäschke 1975, 100–101). Occasionally oversized Roman walls were adapted to the number of available men in a particular shire by erecting a smaller fortress inside a larger town. Together, the Burghal Hidages and the *Burgenordnung* thus are a unique source of information on the population sizes of the fortresses and their associated demesnes.

As regards the Zutphen ramparts we can conclude that these were about 950 m long. Assuming one defender for every 1.25 m, this implies a garrison of about 760 defenders. These would have been able-bodied men between the ages of 18 and 40. Again assuming that every able-bodied men represents roughly 4.5 residents, this would mean a population size for the fortress during a siege of about 3,420 individuals. To this number we should add a handful of clerics associated with the county's churches, and an unspecified number of villeins (who may or may not have been drafted for the defence). This represents a conservative estimate of the combined populations of the demesnes of the Crown, the count, and the Church, at least those demesnes in the comital territories along the IJssel. This estimate is based on the assumption that the size of the fortress more or less reflects the number of inhabitants of the county it was meant to protect. The actual number can hardly have been much smaller, as this would leave the fortress poorly defended. Dividing the estimated population of 3,450 by nine, as only one of every nine farmer-warriors resided at the fortress in peacetime, we arrive at c. 380 permanent residents for the Zutphen fortress. The recruitment factor of 1:9 may have been somewhat lower in the late 9th century (Jäschke 1975, 31–33); these figures are only a rough approximation. But they do give us some idea as to the populations of the county and its fortress.

The concentration of legal court sessions, markets, and ceremonial festivities in one location as stated in the *Burgenordnung* also found its spatial expression in the Zutphen fortress. Following the destruction of the court and settlement in 882 the houses on and around today's 's-Gravenhof square were not rebuilt there but at some distance, in the area encompassed by the new fortress, leaving a wide-open space to the north of the timber hall. As late as 1774 sessions of the manorial court, the leengericht, took place on the square north of the tuff stone *Pfalz*, and the Vismarkt (»fish market«), Zutphen's oldest market, was also located there. Ceremonial festivities took place in the large timber hall and from the 11th century onwards in the tuff stone *Pfalz*. In short, it appears that the area was deliberately left vacant to facilitate the clustering of justice, market activities, and festivities in one place, as stipulated in the *Burgenordnung*.

The fact that the two centres of the comital territory, Deventer and Zutphen, fulfilled complementary functions is rather striking. Deventer was the ecclesiastical centre, serving as a base for missionary activities in Saxon territories in the 8th century and becoming an episcopal see around 900. In a parallel development, Deventer's function as a trade centre (*portus*) increased in the course of the 9th century, and by c. 900 the town was the leading trade hub of »Frisian« Lotharingia. Zutphen, on the other hand,

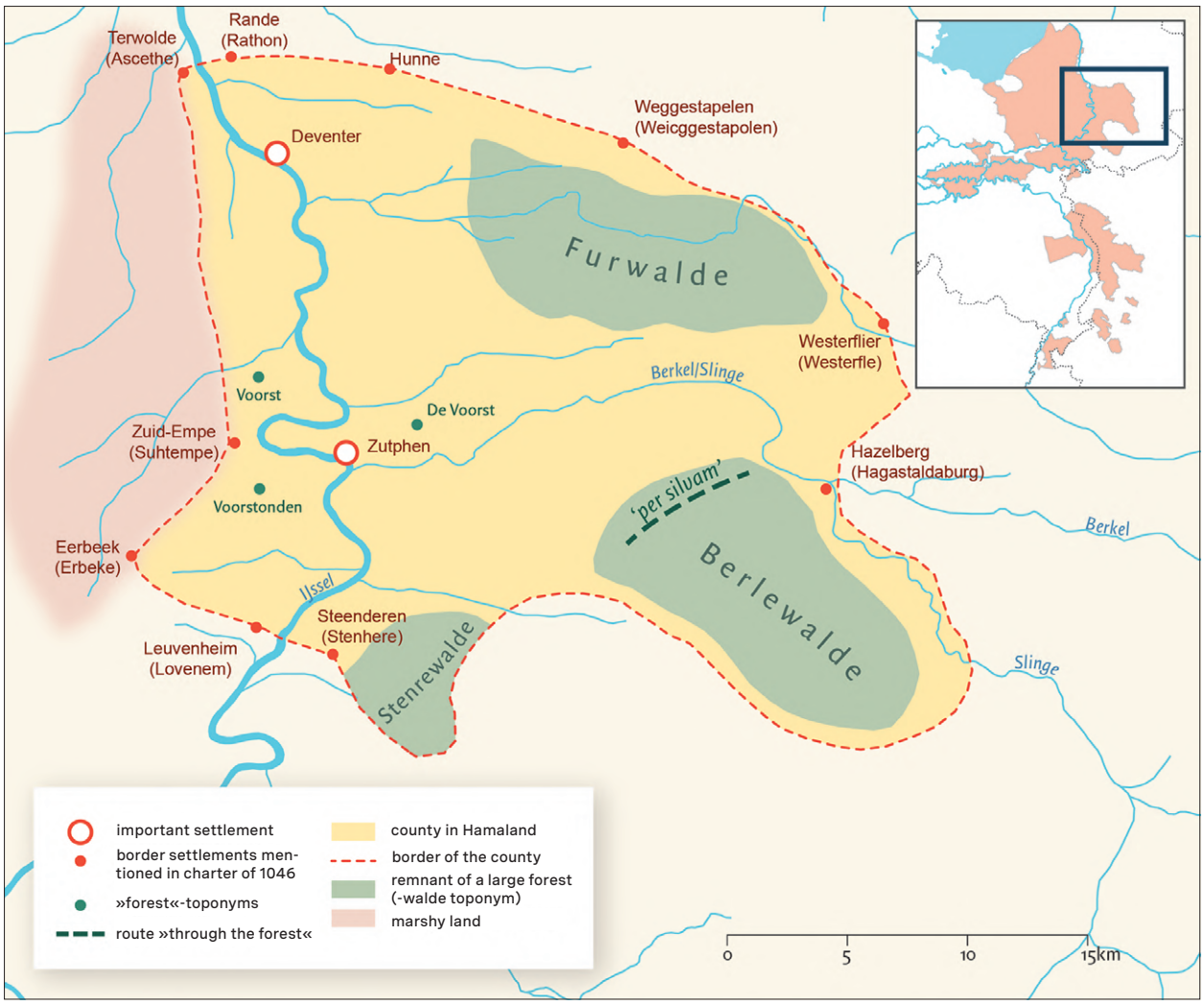

Fig. 26 Map of the location of the county in Hamaland, with the border towns around Deventer and Zutphen mentioned in the royal deed of gift of AD 1046. After AD 1046 northern Hamaland became the core area of the county of Zutphen. Indicated are late Medieval »forest« toponyms and »walde« toponyms refer to woodland. – (After Verhoeven et al. 2022, 24; graphics Marjolein Haars BCL Archaeological Support).

was the county's administrative centre while its circular fortress was its military power base. A functional complementarity between two neighbouring places was not uncommon in the Carolingian period, both in the empire itself and elsewhere. Until well into the 9th century, Utrecht was an ecclesiastical centre while nearby Dorestad was the *emporium* of the Frisian part of the Carolingian empire that was under Franconian control. After Dorestad's demise as the main trade hub it was succeeded by centres like Tiel and Deventer. Another well-known pairing in Wessex in England is that of the trade hub of Hamwic (modern Southampton) and the royal centre at Winchester.

The Zutphen Fortress in the 10th Century

In 892 the Vikings retreated in large numbers to the east coast of England, and the attacks abated. In 917 Balderic, the last bishop to reside at Deventer, returned to Utrecht. Not by chance, the official relocation of the see to Utrecht coincided with the annexation of Lotharingia by Henry I, King of East Franconia (919–936). It was probably also Henry who was the driving force behind the restoration of Utrecht as the episcopal see in order to draw the west of the Utrecht diocese into the East-Franconian sphere of influence. Utrecht assets lost during the Viking period were returned (the famous St Martin estate inventory), thus restoring the Utrecht diocese's economic foundations. Once this was settled, Bishop Balderic set out on a major building campaign in Utrecht and in other episcopal centres, like Deventer, Oldenzaal and Elst.

With Deventer now greatly flourishing as a trade centre, the fortress of Zutphen continued as the centre of a large demesne, also in outward appearance. The two-aisled timber hall that succeeded the burnt aisleless one probably had royal pretensions comparable to the large halls at royal centres like Werla, Grone, Tilleda and Palas Phase IIIa at Hoog-Elten (**fig. 25**; Groothedde 2013a, 117–126; Streich 1984, 153–156. 159–162; Binding 1986, 5–6; Eberhardt/Grimm 2001, 22 and tab. 10b; Dapper 2007, 156–169). Particularly the resemblance with Hoog-Elten is revealing; in both places the halls were built by order of one of the counts of Hamaland, almost certainly Everhard in his capacity as Duke of Lower Lotharingia. From the Zutphen hall, the surrounding comital territories were administered by one of the powerful scions of the House of Hamaland (Wirtz 1971, 54–56. 71–76; van Winter 2001). This dynasty held on to its comital authority in and around Zutphen until well into the 10th century (van Winter 2001). At some point after the death of Meginhard III in 952 the original Hamaland territory – in fact a cluster of many eastern Dutch counties – was split into two, one section being ruled by Wichman of Elten (< 930–973) and the other by Count Everhard II of Hamaland (dates unknown) (van Winter 2001, 60–61). Everhard II's territories included the IJssel county (northern Hamaland). Following a power struggle between Count Balderic (d. 1021) and Countess Adela of Hamaland (< 960– < 1028) on one side, and Bishop Adelbold of Utrecht and the German Emperor Henry II on the other, the Hamaland estates were confiscated in 1018 and comital authority in the region reverted to the emperor, but only in the southern Hamaland county around Elten.

Aftermath

Finally, Zutphen and northern Hamaland were both acquired by the counts of Verdun, who as dukes of Lotharingia came into conflict with the German kings on several occasions. In 1046 King Henry III (ruled 1039–1056) gave northern Hamaland (**fig. 26**) to his loyal prince-bishop Bernold of Utrecht (bishop from 1027 to 1054). At this time a vast tuff-stone building was erected on top of the remains of the Hamaland hall, a *Pfalz* with a length of over 50 m, and for a while Zutphen became one of the German kings' palace sites, where they could rest on route to Utrecht (Groothedde 2013a). However, around 1100 comital administrators once again rose to power in the Zutphen area. The counts of Zutphen and their successors, the counts of Guelders, made the town their chief residence, and at the same time Zutphen acquired some urban traits. In 1194 or 1195 the growing merchant colony on the banks of the IJssel was granted a town charter by Count Otto I of Guelders and Zutphen (count from 1182 to 1207).

Bibliography

Sources

Annales Fuldenses: R. Rau (ed.), Quellen zur Karolingischen Reichsgeschichte. 3: Jahrbücher von Fulda. Regino, Chronik. Notker, Taten Karls. Ausgewählte Quellen zur Dt. Gesch. Mittelalter. Freiherr vom Stein-Gedächtnisausg. 7 (Darmstadt 1960) 19–177.

Bauer/Rau 1977: A. Bauer / R. Rau, *Widukindi res gestae Saxonicae I 35*. In: A. Bauer / R. Rau (ed.), Quellen zur Geschichte der Sächsischen Kaiserzeit. Widukinds Sachsengeschichte. Adalberts Fortsetzung der Chronik Reginos. Liudprands Werke. Ausgewählte Quellen Dt. Gesch. Mittelalter. Freiher vom Stein-Gedächtnisausg. 8 (Darmstadt ^{2}1977) 68–69.

Gysseling/Koch 1950: M. Gysseling / A. C. F. Koch (eds), Diplomata Belgica ante annum millesimum centesimum scripta. Bouwstoffen en Stud. Gesch. en Lexicogr. Nederlands 1 (Brussel 1950).

Miracula Sancti Bertini: Miracula Sancti Bertini Sithiensia. Libellus miraculorum. O. Hodder-Egger (ed.), MGH SS 15, 1 (Hannoverae 1887) 507–522.

Regino of Prüm: S. MacLean (ed.), History and politics in late Carolingian and Ottonian Europe. The *Chronicle* of Regino of Prüm and Adalbert of Magdeburg. Selected sources translated and annotated with an introduction (Manchester 2009) 61–231.

Utrecht Psalter: psalter.library.uu.nl.

References

Bartels 2006: M. H. Bartels, De Deventer wal tegen de Vikingen, archeologisch en historisch onderzoek naar de vroegmiddeleeuwse wal en stadsmuren (850–1900) en een vergelijking met andere vroegmiddeleeuwse omwalde nederzettingen. Rapportages Arch. Deventer 18 (Deventer 2006).

Binding 1986: G Binding, Elten am Niederrhein. Rhein. Kunststätten 197 (Neuss ^{2}1986).

Bitter 1983: P. Bitter, De vondsten van het 's-Gravenhof opnieuw bekeken, Oud-Zutphen. Tijdschr. Hist. Ver. Zutphen 2, 1983, 17–22. 39–46.

1985: P. Bitter, Uit het bodemarchief van Zutphen. 1–4: Oud Zutphen. Tijdschr. Hist. Ver. Zutphen 4, 1985, 1–7. 39–47. 72–77. 112–115.

Cleere 1976: H. F. Cleere, Some operating parameters for Roman ironworks. Bull. Inst. Arch. (London) 13, 1976, 233–246.

Cohen et al. 2009: K. M. Cohen / E. Stouthamer / W. Z. Hoek / H. J. A. Berendsen / H. F. J. Kempen, Zand in banen. Zanddieptekaarten van het Rivierengebied en het IJsseldal in de provincies Gelderland en Overijssel. Utrecht University Repository (Utrecht 2009).

Dapper 2007: M. M. C. Dapper, Die Neuinterpretation der Grabungsergebnisse auf der Pfalz Tilleda. In: C. Ehlers / J. Jarnut / M. Wemhoff (ed.), Zentren herrschaftlicher Repräsentation im Hochmittelalter. Geschichte, Architektur und Zeremoniell. Deutsche Königspfalzen. Beiträge zu ihrer historischen und archäologischen Erforschung. Veröff. Max-Planck-Inst. Gesch. 11, 7 (Göttingen 2007) 151–169.

Dijkstra 2002: M. Dijkstra, Terug naar Rijnsburg. De vroeg-middeleeuwse bewoning op het voormalige abdijterrein opnieuw bekeken. In: Archeologie. NJBG-congres 2002. Een archeologische rondreis door de geschiedenis van de Oude Steentijd tot de Nieuwe Tijd, 17–19.

Eberhardt/Grimm 2001: H. Eberhardt / P. Grimm, Die Pfalz Tilleda am Kyffhäuser. Ein Führer durch Geschichte und Ausgrabung (Halle a. d. Saale ^{6}2001).

Fermin 2011: H. A. C. Fermin, Wulfare. Archeologisch onderzoek naar prehistorische en middeleeuwse bewoningsresten aan de Voorsterallee te Zutphen. Zutphense Arch. Publ. 60 (Zutphen 2011).

Fermin/Groothedde 2004: H. A. C. Fermin / M. Groothedde, Laan naar Eme 2004 (LnE101). Bewoningssporen uit de Late Bronstijd op de middeleeuwse enk Ovesthamme. Zutphense Arch. Publ. 11 (Zutphen 2004).

2006: H. A. C. Fermin / M. Groothedde, De Zutphense ringwalburg van de 9^{e} tot de vroege 14^{e} eeuw. Nieuwe gegevens en inzichten uit archeologisch onderzoek en boringen op de Zutphense markten. Zutphense Arch. Publ. 22 (Zutphen 2006).

2008: H. A. C. Fermin / M. Groothedde, »Oppidum Sutphaniense« – Archeologisch onderzoek naar de oudste defensieve werken van Zutphen, de 13^{e}-eeuwse bebouwing en een 18^{e}-eeuwse afvalput in de kelders van Houtmarkt 63c te Zutphen. Zutphense Arch. Publ. 41 (Zutphen 2008).

Groenewoudt/Groothedde 2008: B. J. Groenewoudt / M. Groothedde, Houtskoolproductie op de Looërenk. In: H. M. P. Bouwmeester / H. A. C. Fermin / M. Groothedde (eds), Geschapen Landschap. Tienduizend jaar bewoning en ontwikkeling van het cultuurlandschap op de Looërenk in Zutphen. Archeologisch onderzoek. BAAC rapport 00.068 ('s-Hertogenboschr, Deventer 2008) 276–283.

Groothedde 1992: M. Groothedde, De vroege opkomst van Zutphen. Tijdschr. Zutphen 1992(1), 1–10.

1998: M. Groothedde, Een elfhonderd jaar oude verdedigingswal aan het Noordenbergschild en de Stenen Wal. Deventer Jaarb. 1998, 54–67.

1999a: M. Groothedde, De nederzettingsontwikkeling van Zutphen voor het jaar 1000. In: Groothedde et al. 1999, 9–30.

1999b: M. Groothedde, Van straten, muren en poorten. Archeologische waarnemingen bij rioleringswerkzaamheden en de opgraving aan de Waterstraat in Zutphen anno 1998 en 1999. Bijdr. en Mededel. Ver. Gelre 90, 1999, 189–221.

2003: M. Groothedde, Kolenstraat 7. Archeologisch onderzoek. MoNUmentaal 8, 2003, 8–15.

2004: M. Groothedde, The Vikings in Zutphen (Netherlands). Military organization and early town development after the Viking raid in 882. In: Simek/Engel 2004, 111–132.

2009: M. Groothedde, De blauwdruk van middeleeuws Zutphen. De Zutphense ringwalburg in breed perspectief. Westerheem 58, 2009, 273–293.

2013a: M. Groothedde, Een vorstelijke palts te Zutphen? Macht en prestige op en rond het plein 's-Gravenhof van de Karolingische tijd tot aan de stadsrechtverlening. Zutphense Arch. Publ. 77 [Diss. Univ. Leiden] (Zutphen 2013).

2013b: M. Groothedde, Charcoal and Iron Production at and around Zutphen (AD 850–1200). Medieval and Modern Matters 4, 2013, 61–80.

Groothedde/Hermans 1999: M. Groothedde / M. R. Hermans, De Proosdij en Dekenije en andere geestelijke huizen rond de kerk. De historische bebouwing binnen de voormalige immuniteit. In: Groothedde et al. 1999, 133–135.

Groothedde et al. 1999: M. Groothedde / G. E. Hartman / M. R. Hermans / W. H. de Jonge / C. O. A. Baron Schimmelpenninck van der Oije / C. ter Strake (eds), De Sint-Walburgiskerk in Zutphen. Momenten uit de geschiedenis van een middeleeuwse kerk (Zutphen 1999).

Hadley/Richards 2013: D. Hadley / J. D. Richards, Viking Torksey: Inside the Great Army's winter camp. Current Arch. 281, 2013, 12–19.

van Heeringen et al. 1995: R. M. van Heeringen / P. A. Henderiks / A. Mars (eds), Vroeg-Middeleeuwse ringwalburgen in Zeeland (Goes, Amersfoort 1995).

Heidinga 1986: H. A. Heidinga, Midden-Nederland tussen Friezen, Franken en Saksen. Westerheem 35, 1986, 128–140.

Henderikx 1995: P. A. Henderikx, De ringwalburgen in het mondingsgebied van de Schelde in historisch perspectief. In: van Heeringen et al. 1995, 71–112.

2002: P. A. Henderikx, Ontstaan en ruimtelijke intwikkeling van Middelburg (9e–14e eeuw). In: P. J. Woltering / W. J. H. Verwers / G. H. Scheepstra (eds), Middeleeuwse Toestanden. Archeologie, geschiedenis en monumentenzorg. Aangeboden aan Herbert Sarfatij bij zijn 65e verjaardag (Amersfoort, Hilversum 2002) 241–267.

Hill 1969: D. Hill, The Burghal Hidage: The Establishment of a Text. Medieval Arch. 13, 1969, 84–92. DOI: 10.5284/1071488.

Jäschke 1975: K.-U. Jäschke, Burgenbau und Landesverteidigung um 900. Überlegungen zu Beispielen aus Deutschland, Frankreich und England. Vorträge u. Forsch. Sonderbd. 16 (Sigmaringen 1975).

de Jong 1995: M. de Jong, Carolingian monasticism: the power of prayer. In: R. McKitterick (ed.), The New Cambridge Medieval History 2, c. 700–c. 900 (Cambridge 1995) 622–653. DOI: 10.1017/CHOL9780521362924.026.

Jongbloed 2006: H. H. Jongbloed, Tussen »paltsgraafschap« en »IJssellinie«, Averarda »van Zutphen« († 11 augustus [961]) en de geboorte van de graafschappen Zutphen en Gelre (1026–1046). Bijdr. en Mededel. Ver. Gelre 97, 2006, 57–130.

Koster 2011: C. K. Koster, Wonen en werken in het centrum van prestedelijk Zutphen. Archeologisch onderzoek naar structuren uit de opgravingen Zutphen – Stadhuis en Kuiperstraat 1, circa 882–1200 na Christus. Zutphense Arch. Publ. 65 (Zutphen 2011).

Linssen 2008: C. A. A. Linssen, Over Sint-Odiliënberg, zijn heiligen Wiro, Plechelmus en Odgerus, hun vinding en verheffing, hun verering en vitae. De Maasgouw 127, 2008, 3–20.

Meijer 2025: N. Meijer, Karolingische »whodunits« uit Zutphen. Een fysisch antropologische analyse [Bachelor thesis Hogeschool Saxion Deventer, Zutphen 2025].

Mittendorff 2007: E. S. Mittendorff, Huizen van Heren. Archeologisch onderzoek naar het proces van verstedelijking en de vorming van een stedelijke elite in het Polstraatkwartier van Deventer, ca. 800–1250. Rapportages Arch. Deventer 20 (Deventer 2007).

Renaud 1950: J. G. N. Renaud, De onderzoekingen op het Gravenhof te Zutphen. Bull. Koninklijke Nederlandse Oudheidkde. Bond Ser. 6(3), 1950, 16–33.

Rompelman 2007: E. Rompelman, Dierlijk en menselijk botmateriaal uit de opgravingen 's-Gravenhof 1999 en Zutphen Stadhuis. Vondsten uit het roerige laatste kwart van de 9e eeuw: Stadsafval of Vikingaanval? Zutphense Arch. Publ. 36 (Zutphen 2007).

Sanke 1999: M. Sanke, »Wikingerschutt« aus Deventer und Zutphen. Zwei enddatierte Keramikkomplexe mit rheinischer Importware aus den Niederlanden. In: S. Bratther / H. Steuer (eds), Archäologie als Sozialgeschichte. Studien zu Siedlung, Wirtschaft und Gesellschaft im frühgeschichtlichen Mitteleuropa. Festschr. Heiko Steuer zum 60. Geburtstag. Internat. Arch., Stud. honoraria 9 (Rahden/Westf. 1999) 251–270.

2002: M. Sanke, Die mittelalterliche Keramikproduktion in Brühl-Pingsdorf. Technologie – Typologie – Chronologie. Rhein. Ausgr. 50 (Mainz 2002).

Simek/Engel 2004: R. Simek / U. Engel (eds), Vikings on the Rhine. Recent Research on Early Medieval Relations between the Rhinelands and Scandinavia. Stud. Medievalia Septentrionalia 11 (Wien 2004).

Streich 1984: G. Streich, Burg und Kirche während des deutschen Mittelalters. Untersuchungen zur Sakraltopographie von Pfalzen, Burgen und Herrensitzen 1–2. Konstanzer Arbeitskr. Mittelalterl. Gesch. Vorträge u. Forsch. Sonderbd. 29 (Sigmaringen 1984).

Verdonk 1990: H. Verdonk, De familie-inschrijving van Wichman van Elten in het gedenkboek van Reichenau (Lelystad 1990).

Verhoeven et al. 2022: D. Verhoeven / M. Gubbels / M. Melenhorst (eds), Gelderland als zelfstandig graafschap en hertogdom. 2: Verhaal van Gelderland van 1025 tot 1543 (Amsterdam 2022).

van Vliet 1996: K. van Vliet, Van missiebasis tot stadskapittel. In: J. R. M. Magdelijns / H. J. Nalis / R. H. P. Proos / D. J. de Vries (eds), Het kapittel van Lebuinus in Deventer. Nalatenschap van een immuniteit in bodem, bebouwing en beschrijving (Nieuwegein 1996) 12–30.

2004: K. van Vliet, *Traiecti muros heu!* The Bishop of Utrecht during and after the Viking Invasions of Frisia (834–925). In: Simek/Engel 2004, 133–154.

van Winter 2001: J. M. van Winter, Het (palts)graafschap Zutphen en het Hamalandse gravenhuis. Bijdr. en Mededel. Ver. Gelre 93, 2001, 57–79.

Wirtz 1971: A. Wirtz geb. Henningsen, Die Geschichte des Hamalandes, Ann. Hist. Ver. Niederrhein 173, 1971, 7–84. DOI: 10.7788/annalen-1971-jg02.

Michel Groothedde
Team archeologie
Municipality of Zutphen
Kuiperstraat 13
NL - 7201 HG, Zutphen
m.groothedde@zutphen.nl