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The Fight for Nordalbingia:

Reconstruction and Simulation of the Danish-Obodrite Attack on the Frankish Fortress of Esesfelth in AD 817

Abstract

It is possible to gain insight into Frankish-Danish relations in Nordalbingia during the early 9th century based on archaeological excavation results and written sources. Such relations were characterised by armed conflicts, political intrigue and shifting alliances. The Frankish fortress of Esesfelth had a key function during this time of unrest. Emperor Charlemagne built it in AD 810, partly to prevent Danish supremacy over the Nordalbingian Saxon territory north of the River Elbe, and partly as a starting point for incorporating it into the Frankish realm. The fortress was an exceptional defensive structure without any known contemporary parallels. As the centre of Frankish administration in Nordalbingia Esesfelth became the target of an attack by combined Danish and Slavic (Obodrite) forces in AD 817. To some extent, the attack can be reconstructed by interpreting excavation results, and simulated with the aid of military theory. The results also present an excellent opportunity to explore various fortification components in detail.

Introduction

This article examines the historical and archaeological significance of the Frankish fortress of Esesfelth, as a model site for early medieval fortresses in general and for the understanding of socio-political development in the Saxon territory in particular. It can also be used as a study of early medieval military strategy and tactics since it is both mentioned in written sources and has been almost completely excavated. The excavations have uncovered fortification details previously unknown from this period, and lead to the question: what was the function of Esesfelth when Nordalbingia was incorporated in the Frankish realm? In this article both the military (fortress) and the administrative functions of the *civitas* will be considered.

My approach to Esesfelth has been inspired by military theory found in 'On War' by the Prussian general, philosopher and military theorist Carl Philipp Gottlieb von Clausewitz, written at the beginning of the 19th century. Although von Clausewitz' deliberations refer to more modern fortresses, they are quite theoretical in nature (von Clausewitz 1832–4, book

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6, ch. 10) and therefore, sometimes somewhat modified, applicable to early medieval conditions (cf. Lemm 2013a: 32–5).

Frankish fortress building has its origin in the establishment of the Merovingian dynasty in the fortified centres of the late Roman *civitates* in Gaul. From an early stage these fortresses became means and centres for securing the rule of the emerging feudal nobility. During the Frankish eastward expansion, initiated in the late 7th century, fortresses were built in all conquered tribal areas, creating a dense network to consolidate power. Initially the fortresses were built on Frankish royal domains, which were gradually usurped by nobles during the 9th century (Brachmann 1993: 81–2, 158, 209).

Esesfelth is located near present day Itzehoe, 14 km north of the Elbe and 60 km south of the well-known linear defensive works of the Danevirke. Excavations of various parts of the site have been carried out in six campaigns: in 1932, 1952, 1958–9, 1974, 1977–80, 1981. This means that the remains of almost the entire area have been investigated and the results published individually (Hofmeister 1932: 115–21; Weidemann 1959; Schäfer 1978, 1980; Kühn 1980, 1995). The first comprehensive evaluation of all excavation results was carried out only a few years ago (Lemm 2013a). The unique archaeological conditions in Esesfelth provide a good foundation for a detailed understanding of the skill of the fortification builders.

In Middle Latin sources from the 9th century, more than one term is used in connection to fortresses. While *castellum* never refers to anything more than a fortress as a military installation, the terms *civitas* and *urbs* would also include an adjoining settlement or town. There are also legal aspects differentiating between *castellum* and *civitas*, where *castellum* was never used for an entire populated centre but merely for the fortress part of one (Schlesinger 1981: 119). Hence, there must have been further elements included in the *civitas* of Esesfelth than the excavated fortifications.

This paper will provide a detailed evaluation of the fortification aspects of Esesfelth set against the historically corroborated attack of combined Danish and Obodrite forces on the fortress in AD 817, a siege that has had enormous historical significance. If the Franks and Saxons had suffered defeat here, the Franks might have had to withdraw from Nordalbingia, and this could have led to an extension of the Danish power sphere as far south as the Elbe. In that case, the history of Schleswig-Holstein and Denmark would have taken a different course.

Historical background

In AD 804, the last Saxon opponents of Charlemagne, those in the regions Wigmodia, to the south of the Lower Elbe, and Nordalbingia, to the north, laid down their arms. Consequently, the so called Saxon Wars, lasting over 30 years, came to an end. While Wigmodia was integrated into the Frankish Kingdom in the same year and became a Frankish royal domain administered by counts (Weidemann 1976: 166–8), according to the Royal Frankish Annals (*Annales Regni Francorum*; cited as Scholz and Rogers 1987: ARF, below) Charlemagne initially handed over the northernmost part of Saxony to his ally and dependent, the Obodrite Prince Thrasko (Scholz and Rogers 1987: ARF 804; Hoffmann 1989). Nordalbingia became a buffer zone, defended by the Obodrites, between the Frankish and the Danish Kingdoms, the latter considered to be growing in strength (Struve 1965: 15; Kühn 1995: 17; Bock 1996: 46). For the time being, the Elbe remained the north-eastern border of the Frankish Kingdom (Hofmeister 1927: 157; Bock 1996: 445–6; Hardt 2000: 44).

After events in AD 808, however, the Obodrites proved themselves weak to the Danish King Gudfred, who subsequently threatened to appropriate the area, and forced Charlemagne to intervene in the events north of the Elbe (Jenkis 1955: 94; Lammers 1955: 27; Bock 1996: 46). After the collapse of Frankish-Danish peace negotiations in Beidenfleth, on the Stör, in AD 809, the Frankish Count Egbert, Charlemagne's right-hand man in Saxony (Lemm 2013b: 228, 2014: 369), occupied Nordalbingia at the behest of his king and in March 810 he built a fortress at a place called 'Esesfelth' on the Stör (Scholz and Rogers 1987: ARF 809) to keep the Danes at bay. The excavated rampart-ditch complex (Oldenburg II) on the moraine spur called *Camp up der Oldenburg* near Heiligenstedten, c. 2.5 km west of Itzehoe (Fig. 1; Lemm 2013a: 22, 37 fn 7, 138–9, 192–4, 2013b: 217), is most likely the fortification referred to in historical accounts. The construction of Esesfelth can be seen as the initial step towards an integration of Nordalbingia into the Frankish Kingdom.



Figure 1. The historically attested fortresses of Esesfelth (AD 810) and Delbende (AD 822) were built at strategic locations in southern Nordalbingia. The same is true for the fortress of Hammaburg, where the second building phase has been dated archaeologically to the early 9th century. In southern Dithmarschen, the strategically comparable location of the fortress of Bökelnburg, built in the 9th and reactivated in the 11th century, may also have been part of this early phase of Frankish land seizure north of the Elbe. From AD 811 onwards, the River Eider represented the official border between the Danish and the Frankish Kingdoms. In the East, Saxon and Slavic settlement areas were separated by a forested border zone, which can be approximately reconstructed on the basis of Saxon and Slavic place names and younger linear border descriptions.



Figure 2. The location of the fortress of Esesfelth on a late 18th-century map by G. A. von Varendorf and the Prussian topographical map no. 2022, from the 1880s, reveals how favourable the location was from a military perspective. CCO

Esesfelth's location, construction and find material

From a medieval military perspective, the moraine north of the River Stör was an ideal place for the erection of a fortress. The site Count Egbert chose had a shallow spur that protruded into marshes by the river. Historical maps and geological boring show that the promontory was surrounded by marshy depressions in the north and west, while the river Stör, to the south, came to within c. 100 m of the fortress area (Fig. 2; Kühn 1995: 19). Also, at a bend of the Stör by Itzehoe, c. 2.5 km further east, three important long-distance routes converged on the river, which provided contact between the areas north and south of the Elbe (Struve 1965: 36). Hence, Esesfelth with its favourable transport-geography position, had a key position for controlling the entire Nordalbingian area.

Count Egbert was not the first to fortify the promontory. About 150 years earlier, Nordalbingian Saxons had dug out two crescent and trough-shaped ditches here. These were set 5–6 m apart on the outermost point of the spur (Fig. 3; Oldenburg I). This doubleditch complex can be dated to the 7th century based on the ceramic finds from the bottom and deepest fill layers of several ditches. ¹⁴C-dates confirm this estimate and suggest use in the second half of the 7th century (Lemm 2013a: 186–92). For the Saxon inhabitants of this region, in whose collective memory these old ancestral defences would still be present, the construction of Esesfelth on top of the old ditches – still partly left open – may have had a symbolic relevance: the new rulers laid their foundations on the ruins of the old.

Prior to the excavations there were no visible remains of the fortifications. Moreover, during the field investigations extensive disturbances were discovered that can be attributed to gravel and sand extraction, as well as the construction of the West Holstein Marsh Railway, whose tracks ran across the site from 1878 to 1920 (cf. Fig. 2). Due to intense cultivation, other structures near the surface had also been destroyed and, unfortunately, the only traces of an assumed internal structure were a few post holes. Conversely, diverse forms of deeply built rampart and ditch foundations had withstood the various ground disturbances and today almost the entire outline of the fortification is known (Kühn 1995: 18; Lemm 2013 a: 466–73). Judging by these archaeological features, the Frankish fortress of Esesfelth (Oldenburg II) was extraordinary (cf. Lemm 2012).

An oval internal area of about a hectare was surrounded by turf ramparts up to 10 m wide in the north-west, north and east (cf. Fig. 3). The side facing the Stör probably lacked ramparts (Kühn 1989: 569). Situated to the east and north of the complex, immediately in front of the ramparts, were two moats interrupted by an earth causeway leading to the gate, which was situated near the north-western point of the spur. Immediately to the west of the causeway, between the moats, a short third ditch had been dug. A 6 x 3 m stone-paved box gate, continuing the approach, penetrated the ramparts (Weidemann 1959: 11). A total of eleven – presumably twelve originally – ditches had been dug at roughly right angles from the outer moat, making the fortress an exceptional defensive structure for the early 9th century.¹ In addition, to the east, a massive outer ditch cordoned off the spur of the old moraine. Unfortunately, as mentioned above, the nature and scale of internal structures are not known due to the poorly preserved upper layers.

At Esesfelth, as in all fortresses where archaeological material has been excavated the finds provide an insight into everyday life. The artefacts recovered from Oldenburg II consist almost exclusively of pottery sherds of locally made soft grey ware, from pots with short rims and flat or spherical bases. Many sherds, above average for the Nordalbingian area,



Figure 3. Oldenburg I (Saxon double-ditch complex) and Oldenburg II (the Fortress of Esesfelth) on the moraine spur Camp up der Oldenburg, east of Heiligenstedten. The original edge of the spur, i.e. the border between the moraine and the marsh, was also documented during the excavations.

have cross- or rosette-stamp ornamentations and a few bear a decoration characteristic of early Slavic ware. Pottery imported from the Frankish Rhineland region was also found, and based on three sherds it can possibly be identified as Badorf ware. The remaining find material included fragments of basalt millstone, whetstones from slate, small iron and bronze fragments, as well as whorls and loom weights, which suggest that textiles were produced in the fortress. There are no finds apart from one, a mouthpiece of a bridle from the outer ditch, that provide archaeological evidence for the presence of Egbert or Saxon counts at the site ('*Egberto et comitibus Saxonicis*') (Scholz and Rogers 1987: ARF 809). Although it might just as well stem from the Danish–Obodrite attackers. Nevertheless, based on the archaeological finds and the historical background it has to be assumed that the fortress was inhabited for a few decades. During that time it would have served both as residence for the Frankish commander in Nordalbingia, his military and domestic household, and for a garrison controlling the territory.

Functions of the fortress and consequences of its construction for Nordalbingia

From the military theoretical perspective of Carl von Clausewitz: 'The efficacy of a fortress is plainly composed of two different elements, the passive and the active. By the first it

shelters the place, and all that it contains; by the other it possesses a certain influence over the adjacent country,' (von Clausewitz 1832–4, book 6, ch. 10). Initially the fortress at Esesfelth simply provided the Franks with a sheltered bridgehead north of the Elbe. However, more importantly, it also had a key position for gaining control of the entire Nordalbingian region by 'covering a province not occupied' (von Clausewitz 1832–4, book 6, ch. 10.9). Thus, providing influence, aided by its correspondingly large garrison, over the adjacent area. Without it the region would have been exposed to hostile army campaigns or plundering raids. In the case of Esesfelth, active influence was facilitated through the long-distance communication routes converging on the Stör 2.5 km to the east. The vicinity to these routes leading to Dithmarschen, Jutland and into the area of today's Ostholstein (cf. Fig. 1) enabled Count Egbert to respond quickly when the region was under severe threat.

Such reasoning would explain why the Franks built the fortress. However, according to the Royal Frankish Annals (Scholz and Rogers 1987: ARF 809) the term *civitas* was used already in the planning of Esesfelth and, as previously stated, described more than just the military base. It also included plans for an administrative centre encompassing the surrounding area (Kühn 1995: 21) with the actual fortress representing only one element (cf. Schlesinger 1981: 119). Accordingly, Count Egbert was tasked not only with the military occupation of Nordalbingia but also with laying the foundations for the future administration of the area (Weidemann 1959: 9). Using the *civitas* as a base the Franks could develop and consolidate their administrative and military presence. Esesfelth's completion in AD 810 also ended the Obodrite rule of the area (Lammers 1955: 27) and was probably a major reason for the deteriorating Frankish-Obodrite relations (Struve 1965: 17).

The integration of Nordalbingia into the Frankish Kingdom and the introduction of a new administrative centre in Esesfelth must have had dramatic effects. It can be assumed that Nordalbingia, as Wigmodia had six years earlier (Weidemann 1976: 168), became a royal domain (Lemm 2014: 361). These measures, along with the introduction of the so called 'fränkische Grafschaftsverfassung' (the Frankish County administration, i.e. the introduction of comital titles, land grants and privileges), new legislation for Saxony (*Lex Saxonum*) and the forced Christianisation that Charlemagne had introduced years earlier in the South Elbian part of Saxony (Springer 2004: 56) were now implemented north of the Elbe, as well. The effects of the latter are clearly indicated by the abandonment of traditional burial practises in the Nordalbingian ancestral cemeteries, during the first half of the 9th century (Kleemann 2002: 372-9). With the introduction of the 'fränkische Grafschaftsverfassung' several Nordalbingian magnates probably followed the example of their relatives south of the Elbe and that of the Saxon counts accompanying Egbert, allowing themselves to be won over to the Frankish cause (Struve 1965: 43–4).

The typical Frankish approach to conquest, with a combination of military control, through fortresses, and missionary work, through churches, stood out already in the early period of the Saxon Wars (AD 772–804) (cf. Brachmann 1985: 215–6; Hardt 2000: 41–2; Springer 2004: 56). From AD 810 this strategy would have been implemented in Nordalbingia as well. Although no church at Esesfelth is mentioned in the Royal Frankish Annals, the short distance (800 m) between the fortress and today's church in Heiligenstedten is striking (Fig. 4). Adam of Bremen (Müller and Pentzel 1999: I, 20) reports that Ansgar moved 'the body of St. Maternian to Heligonstat', sometime between AD 826 and 831, an event which may even have given Heiligenstedten its name (meaning 'holy site'; Laur 1992: 320). The



Figure 4. High-resolution site model of the approximate area of the civitas of Esesfelth, with the locations of the fortress, the church in Heiligenstedten, the cella Welanao in Münsterdorf and the presumed trading centre in today's Itzehoe (DEM1; map basis LiDAR data of the Landesamt f. Verm. u. Geoinf. S-H).

transfer of relics suggests that there was a church in Heiligenstedten before AD 831 and emphasises its importance (Gaasch 1952; Jankuhn 1957: 229; Weidemann 1959: 12; Struve 1965: 32). Based on several parallels in other parts of the Frankish realm, it is quite possible that the church was built at the same time, or shortly after the fortress.

According to the controversial, so called 'Hamburg foundation charter' of AD 834, Charlemagne intended to create a diocese north of the river Elbe, in the 'land transferred to Count Egbert' (Kölzer 2016: 833–49, Nr. †338).² A certain Heridag, the first priest of a newly founded church, was envisaged as its bishop. Heridag's early death, however, scuppered this plan (Müller and Pentzel 1999: ch. 12). Until recently this church was assumed to have been built in Ham(ma)burg, but it is probably more correct to link it to the *civitas* of Esesfelth and the church in Heiligenstedten (cf. Janson 2014: 273). In AD 822/3, Emperor Louis 'the Pious' donated the monastery (*cella*) at Welanao, near today's Münsterdorf (c. 5 km south-east of the fortress of Esesfelth), to Bishop Ebo of Reims as a retreat for his mission (Jahnkuhn 1957: 233; Laur 1992: 469; Müller and Pentzel 1999: ch. 13), a further indication of the great significance of the *civitas* of Esesfelth.

Consequently, the main military, cultic, and probably also administrative functions of the early 9th century north of the Elbe were concentrated to the *civitas* of Esesfelth with its fortress, church, and monastery. In addition, it is possible that another central function, which

completed the *civitas*, was also moved to the area, namely the economic one. A thorough archaeological investigation of present day Itzehoe might reveal an early medieval regional trading centre, a mere 2.5 km further east. Such a trading centre would have been situated on an existing route between Central Europe and Jutland. Unfortunately, only one pit house from this period has been archaeologically documented here to date (Kersten 1939: 307–8), which is inadequate support for this hypothesis. At present, no other archaeological sites connected to the Esesfelth fortress area and era, are known.

The Danish King Gudfred responded to the establishment of the fortress at Esesfelth, and the ensuing Frankish occupation of Nordalbingia with a naval attack on Frankish controlled Frisia (Scholz and Rogers 1987: ARF 810). He was, however, murdered by his own people shortly thereafter and a Danish-Frankish peace agreement was reached (Scholz and Rogers 1987: ARF 811). Various Danish kings followed, who governed either as absolute rulers or in diarchies. Louis the Pious, who succeeded his father Charlemagne in AD 814, intervened when civil war threatened Denmark, and sided with King Harald 'Klak' (Scholz and Rogers 1987: ARF 814, 815). Due to Emperor Louis' military and political interventions with both Danes and previous allies, the Obodrites, they formed a pact to end the Frankish supremacy north of the Elbe in AD 817. According to the Royal Frankish Annals the fortress at Esesfelth thus became the target for a Danish fleet, together with a combined Danish and Slavic army (Scholz and Rogers 1987: ARF 817): 'Their fleet came up the Elbe as far as the [fortress] of Esesfelth and ravaged the entire bank of the River Stör. Gluomi, commander on the Norse border, led his foot soldiers overland with the Obodrites to the same [fortress].'

Reconstructing and simulating the attack of AD 817

During excavations on the *Camp up der Oldenburg*, signs were documented from several ditch sections indicating that they had been re-deepened (Schäfer 1978: 331). The new profiles did not correspond exactly to the original ditches but reached approximately the same depths. Through the sections it is possible to determine that the entire length of the inner moat had been restored in this way, which may be attributed to a partial slippage of the ramparts into the moat. Repairs to the outer moat, however, were limited to an area west of the gate (Lemm 2013a: 633–5 pl. 45.2, 46.1, 47.1, 754–6 pl. 165.2, 166, 167.1; 2013 b: 221–2, Fig. 4). Less obvious repair work to the right-angled ditches VI–VIII was distinguishable in the sections further east (Lemm 2013 a: 649–50 pl. 61.2,4, 62.2, 762 pl. 173.2–4). There is also evidence of a partial rebuild of the box gate where there are signs of central and outer posts having been replaced (cf. Fig. 6; Lemm 2013 a: 66, Fig. 17).

It is unlikely that the restorations of the outer moat, the right-angled ditches and the box gate were a result of natural deterioration since this would then be visible elsewhere as well. Hans Joachim Kühn has already suggested that the repairs were associated with the events of AD 817 (Kühn 1989: 570), which would imply that the associated parts of the fortress were focal points for the attack. Below, I will reconstruct events through an archaeological interpretation of the repairs. I will also use tactical considerations to simulate some possible events during the siege in order to reach a deeper understanding of the various fortress elements.³ Since it was impossible to perform a complete excavation of the south-eastern part of the fortress, interpretations will have to be limited to the northern part of the complex.



Figure 5. 3D-model view of the fortress of Esesfelth from the north-east. The Danes and Obodrites probably approached from this direction during the siege of AD 817. The fortifications shown to the upper left of the dotted line, which marks the excavation boundary, are hypothetical.

From a tactical military perspective, the location of the fortress has already been discussed. Based on that, the only plausible approach to the fortress was from the east over the moraine spur and not from the north and west, through the boggy lowlands, or from the south, from the Stör. If the attackers had landed south of the fortress, they would have had to leave their ships in the river shallows, probably wade through an inland marsh and climb the steep moraine spur overgrown with reeds only to face a well organised and prepared defence occupying the higher, favourable ground on the top. Due to the topographical factors it can be assumed that Esesfelth was considered virtually impregnable from the south. Otherwise, the builders would have erected ramparts on this side of the fortress as well. If, on the other hand, there were ramparts on this side as well, traces of them were impossible to find during excavations due to an existing road. All considering, in AD 817, the most likely scenario was that Danes and Obodrites assembled their forces on the moraine east of the fortress (Fig. 5).

The almost semi-circular ramparts of the fortress of Esesfelth would have been c. 300 m long. According to the Anglo-Saxon Burghal Hidage of the early 10th century, used by B. S. Bachrach and D. S. Bachrach for their deliberations on Frankish and Saxon fortifications, an effective defence of ramparts required one defender every 1.3 m (Bachrach and Bachrach 2012: 35; Bachrach 2013: 318). As a consequence, there would have been a need for at least 230 soldiers at Esesfelth. Bachrach and Bachrach (2012: 35) assume a ratio of four to five attackers per defender to be able to effectively storm such a fortification. In theory this means that a siege of Esesfelth, defended by at least 230 Frankish and Saxon soldiers, would require c. 1,000 (920–1,150) Danish and Obodrite attackers.

The siege warfare that dominated Central European military operations during the Middle Ages was conducted in a Roman tradition and included various siege engines to

attack not only walls, ramparts and gates, but also troops defending such fortifications (Bachrach 2001: 103–19; Petersen 2013: 92–3, 192–3, 256–98).⁴ Since early medieval military technology spread quickly,⁵ it is theoretically possible that Danes and Obodrites had access to Frankish siege equipment and/or technology when they attacked Esesfelth. However, it is likely that they applied more basic measures, such as shooting volleys of arrows, throwing spears and hurling stones from slings, against the defenders, followed by an approach and attempt to climb the ramparts with siege ladders to engage the enemy in hand-to-hand combat (cf. Petersen 2013: 268–72).

Phase 1 – the outer ditch

When the Danes and Obodrites attacked from the east their first obstacle would have been the outer ditch, impossible to jump or stride across due to its dimension, 5.5 m wide and 2.5 m deep, and which sealed off the entire 200 m wide spur (Fig. 6.1). This ditch was traversed by two less than 8 m wide causeways, one in the north and one further south. No traces of gates to close these passages were found during excavations (Schäfer 1980: 352; Kühn 1989: 569). There was probably no need for gates as this initial defence structure was designed to slow attackers down, forcing them to narrow their lines and exposing the elon-



Figure 6. Phases I and II of the reconstructed and simulated attack – Danes and Obodrites assembled to the east of the outer ditch and were forced to cross the causeway in an elongated formation (1). Under bombardment from the defenders, they crossed the exposed area inside the outer ditch (2). The narrowing gate area and its slope took the momentum out of the attack (3). Signs of re-dug postholes in the central and outer parts of the box gate indicate repairs resulting from the actual attack.

gated columns to a continuous bombardment of arrows and other projectiles in the enclosed area inside the ditch (cf. Bachrach 2012: 154).

Phase II – the gate

It is likely that the attackers would have chosen a direct approach to the gate since it constitutes the weakest element of any fortification (Fig. 6.2). This is probably why Esesfelth's gate was placed in the north-west, almost at the outermost point of the spur, still however, allowing defensive ramparts on both sides. To reach the gate the attackers would have had to travel a considerable distance under the hail of the arrows and projectiles from the defenders on the ramparts east of the gate. Moreover, the location of the gate would have made it near impossible for the attackers to find a position on the narrow spur that faced the gate and lay beyond the range of defending long range weapons, from which to bombard it with potential siege equipment. A bombardment of the gate from a position east of the outer ditch would probably have been impossible.

When approaching the immediate gate area, the attackers would initially have been flanked by two of the right-angled ditches, set 25 m apart, limiting their deployment considerably. The causeway funnelled and slowed the approach even more as it narrowed from 4.5 m to 3 m when it traversed the inner moat (Fig. 6.3). The momentum would have been arrested even more by a gradient of at least 8–9% close to the gate. The box gate through the rampart may have been covered by a simple platform or a wooden tower (cf. Haseloff 1937: 54, 1941/2: 147; Sprockhoff 1943: 170), either one providing good defensive positions. Attackers with overlapping shields would not have been able to stand in more than threes or possibly fours abreast the narrow causeway, while being bombarded with arrows, stones and spears. They may even have been stabbed by lances from above the gate, or the ramparts on either side. The use of a battering ram against the wooden gate would have been very difficult due to the narrow passageway. Nonetheless, replaced central and outer gate posts, suggest that the Danes and Obodrites had considerable progress in their attacks, perhaps even breaking through the outer part of the box gate (cf. Fig. 6.3).⁶

Phase III – the right-angled ditches

The evidence suggests that after a failed attack on the gate the Danes and Obodrites focused their attack on another part of the fortress. To do that they would have had to regroup outside the right-angled ditches. That there were attacks in other places is supported by evidence of repairs and re-digging of right-angled ditches VI–VIII. These ditches, which were 15 to 20 m long, up to 4 m wide, 2.3 m deep and lay c. 10 m apart, would not have been easily traversed (Fig. 7) especially since attackers would have had to carry ladders to be able to scale the ramparts. By forcing attackers to regroup, the right-angled ditches would have given the defenders on the ramparts more time to reach endangered areas. The attackers would also have been under constant threat from longer range weapons on the ramparts. Even if, and when, the Danes and Obodrites decided to attack the ramparts in several places at once, they would always have faced superior defending forces on the rampart behind the two moats, due to the narrowing constraints of the right-angled ditches. Furthermore, the soil from these ditches would probably have been piled up in between to impede speedy movement. In short, the right-angled ditches always guaranteed a superior number of defenders at each given place of attack, despite their lower absolute numbers.



Figure 7. Phase III of the reconstructed and simulated attack – after the failed onslaught on the gate, the right-angled ditches would initially have impeded rapid movement along the moats and later forced the attackers to split into smaller groups. Repairs on the right-angled ditches VI–VIII indicate an attack in this area. The photo shows radial ditches VIII and IX during the excavations in May 1981. Both had been subject to a more recent disturbance. Visible in the foreground is a part of the outer moat. Only the deepest layers were preserved, which explains the narrow outline.

Phase IV – the attack on the western rampart – the weak point

About 20 m west of the gate, the turf ramparts veered to the south and were no longer protected by two moats. Moreover, the inner moat became considerably smaller and lacked the defensive characteristics it had to the east. To the west it became more of a 'foundation ditch' with the turf of the ramparts piled up on the inside, probably in an attempt to get them as close to the marsh-moraine edge as possible, while still providing a strong base (Lemm 2013a: 470). Eventually the attackers seem to have identified this area as the weakest point of the fortress. This is corroborated by signs of repair on the westernmost part of the outer moat. This assault would have been preceded by the attackers bypassing the corresponding right-angled ditch, despite it being extended to the edge of the moraine spur (Fig. 8.1). It seems as if the builders had anticipated a more direct approach of such an attack from the gate causeway by adding the small ditch (c. 6.5 m long, 2.6 m wide and 1.1 m deep) between the inner and outer moat.

The are no signs of restorations to the small middle ditch or any other part of the outer moat, which strengthens the idea that charging Danes and Obodrites must have managed to



Figure 8. Phase IV of the reconstructed and simulated attack – the small ditch between the moats prevented access to the west and forced the Danes and Obodrites to bypass the westernmost right-angled ditch to be able to attack the weakest point of the fortification (1). After managing to traverse the outer moat, they were beaten back by the defenders (2). The repairs to the outer moat west of the gate (in blue) imply actual combat in this area.

bypass the western right-angled ditch, built to protect the weak point, and were able to approach the western ramparts from there (Fig. 8.2). Indirectly the Royal Frankish Annals indicate that this attempt also failed: 'But since our people offered them violent resistance, they gave up the siege of the [fortress] and departed' (Scholz and Rogers 1987: ARF 817).

Phase V – the counterattack

The opportunity to counterattack is vital for all defenders, and a defence is rarely successful without one. Consequently, the siege of Esesfelth may well have ended with one. At this stage, all the features of the fortress that had worked against the attackers would favour the defenders. The narrow declining causeway widened considerably immediately outside the moats and facilitated a speedy sortie out of the gate. The 25 m distance between the right-angled ditches, which had limited the approach to the gate area, now allowed the defenders to deploy a larger force more rapidly and confront the attackers in a relatively broad combat formation. Additionally, the ditches also protected them from being outflanked (Fig. 9). A counterattack would have forced the Danes and Obodrites to withdraw towards the east, having to use the 8 m wide earth causeway spanning the outer ditch, which would have slowed them down considerably (Fig. 10). During their retreat along the right-angled ditches,



Figure 9. Phase V.1 of the reconstructed and simulated attack – after the unsuccessful attack on the western section of the rampart the Danes and Obodrites (in red) would have had to retreat (1). Franks and Saxons (in blue) may have counterattacked. To them the widening sloping gate area enabled quick deployment in front of the gate (2). The two westernmost right-angled ditches protected the Frankish-Saxon formation from being outflanked (3).

they would still have been at the mercy of arrows and projectiles from the ramparts. The counterattacking defenders, on the other hand, were able to effortlessly pursue, attack and outflank them. The counter attackers may even have been able to chase some of the Danes and Obodrites into the outer ditch, as they would have been forced to turn around to defend their retreat.

As mentioned previously, traces of possible attacks have only been found in the north-western part of the fortress, at the box gate and by the radial ditches VI–VIII, where signs of restoration were observed. The remainder of the siege that I have presented above is a fictional representation, or simulation, created to scrutinise how individual elements of the fortress would have worked during the siege. Unfortunately, no arrowheads, stone missiles or other weapons that could have conveyed further information about the foci of the battle, were recovered during the excavations. Any such traces probably disappeared when gravel and sand was extracted from the area in more recent times. The accounts in the Royal Frankish Annals, however, reveal that the ingenious system of ramparts and various types of ditches proved its worth in AD 817.



Figure 10. Phase V.2 of the reconstructed and simulated attack – the number of counterattacking defenders (in blue) outside the gate would have grown rapidly (1), and the Danes and Obodrites (in red) would have been forced to retreat (2). Frankish and Saxon pursuers would have engaged the retreating forces, inflicting further losses as the former attackers were slowed down by the outer ditch (3).

From Esesfelth to Hammaburg

With the successful defence of Esesfelth in AD 817, the Franks asserted their supremacy north of the Elbe and Nordalbingia became a permanent part of their kingdom. From then on, it was subject to the same social and political developments as the rest of the Frankish, later East-Frankish, Kingdom (cf. Brachmann 1993). As in other parts of the kingdom, north of the Elbe fortress building started with royal strongholds (i.e. Esesfelth, Hammaburg and Delbende) and proceeded with fortresses of the nobility (for example Kaaksburg and Stellerburg; both built in the late 840s).

The events of the attack in AD 817 is the last time Esesfelth is mentioned in written sources, yet nothing is said about its actual abandonment. The archaeological material mostly consists of pot sherds of soft-grey ware, which can only be roughly dated and hence only provide inadequate information about how long the fortress was in use. A small number of sherds, however, feature a rim type with slightly inclined, obliquely cut edges, which does not appear in greater numbers elsewhere until well into the 9th century (Steuer 1979: 47; Stilke 2001: 47, 50, 57–8). This may indicate that the fortress was used beyond AD 817, perhaps until the mid-9th century. However, local preferences for certain rim shapes suggest that there is much uncertainty associated with the analysis of Nordalbingian pottery (Lemm

2013 a: 180). This makes the precise abandonment of fortress Esesfelth difficult to determine based on the archaeological evidence.

In AD 843, the Frankish Kingdom was divided between Emperor Louis' sons, and Nordalbingia became the northernmost province of East Francia. Two years later, in AD 845, Hammaburg (Hamburg) was attacked and destroyed by a Danish fleet (Rau 1969 b: AF 845; Rau 1969 a: AB 845; Müller and Pentzel 1999 I, 23; Müller and Pentzel 1999 ch. 16). That same summer King Louis II of East Francia sent a delegation led by Count Cobbo, the son of Count Egbert, to confront the Danish King Horik regarding the sack of Hammaburg. The following autumn Danish delegates, representing King Horik, appeared when the East-Frankish court assembled in Paderborn. There they agreed to free all Christian captives and to return as much as possible of the loot from the raid (Dümmler 1887: 283–5; Hartmann 1990: 63–4). This indicates that the sack of Hammaburg was more than a mere Viking raid, but rather a military strike initiated by the Danish King. That the attack in AD 845 was directed at Hammaburg and not, as in AD 817, at the fortress of Esesfelth, may indicate that the *civitas* of Hammaburg had superseded the *civitas* of Esesfelth as the royal administrative centre north of the Elbe (Lemm 2013 b: 227–8, 2014: 364).

Why then, was Esesfelth abandoned and its roles transferred to Hammaburg? Until recently, no satisfactory answer to this question had been presented, but Henrik Janson (2014: 273) may have found the 'missing link'. After Emperor Louis' donation of the monastery of Welanao to Bishop Ebo in AD 822/3, the bishop seems to have been able to extend his influence to the *civitas* of Esesfelth and its church in Heiligenstedten. In AD 833, however, Ebo seems to have fallen out of favour with the emperor. In a decision which distanced him from Ebo and the *civitas* of Esesfelth, Emperor Louis decided to press ahead with the Nordic mission, possibly with the intention of realising his father's plan for a diocese north of the Elbe. It was Ansgar and not Ebo, who in AD 834, was tasked with Christianising the Danes and Swedes, either as (arch-)bishop with a new see in Hammaburg (Janson 2014) or merely as a missionary bishop with a modest home base there (Kölzer 2014 a; 2014 b), depending on the interpretation of the diploma of AD 834. Regardless, Hammaburg became the starting point for the Nordic mission.⁷ This decision, taken at the highest level, signalled the decline of Esesfelth and the rise for Hammaburg.

Conclusion

Fortifications are timeless phenomena, and many of their functions and the military theories regarding them discussed in this article can be applied to defences in other time periods, such as Neolithic earthworks, Bronze-Age fortified settlements, Iron-Age and early medie-val fortresses, as well as high and late medieval castles and modern fortresses. The insights gained through the study of Esesfelth, i.e. as a fortress used as an active element of a conquest, e.g. its use in gaining and upholding control over communication routes or as a stronghold from which administrative structures were initially implemented, may therefore also offer approaches for interpreting the role of fortifications in other regions and time periods.

Let us return to the main question: what was the function of Esesfelth in the incorporation of Nordalbingia into the Frankish realm? With regards to Nordalbingia, it seems clear that the construction of Esesfelth in AD 810 did not primarily serve to secure the Elbe border, but rather to initiate the integration of this northernmost territory into the Frankish Kingdom. The successful defence of the fortress against Danes and Obodrites in AD 817 secured Frankish control of the area and as a result further fortresses were built. Later, certain political considerations, which can only be deduced from written sources, led to the abandonment of Esesfelth and the rise of the *civitas* of Hammaburg as the new administrative centre north of the Elbe.

Since the fortress has been almost completely excavated, it is obvious that restorations resulting from the AD 817 attack only affected certain sections of the outer moat, a few right-angled ditches, as well as central and outer parts of the box gate. This supports arguments that these sections were damaged in the course of focused attacks during the siege of AD 817. In addition, my simulation of possible events of the attack, based on tactical considerations, has shown that all elements of the fortress – even such inconspicuous ones as the small middle ditch west of the gate – served a purpose.

A different outcome of the siege could have changed northern German and southern Scandinavian history fundamentally, but some of the most important reasons why this did not happen may be found in the elaborate defences and architecture of the fortress at Esesfelth.

Notes

- ¹ The fortress at Esesfelth contrasts with its contemporaries due to its right-angled ditches. Similar ditches are, however, known from the pre-Roman and Roman Iron Age, as well as from 10th-century fortresses (Ettel 2012: 48–63; Lemm 2013 b: 229). It is possible that right-angled ditches were part of a known architectural fortification repertoire employed during various epochs in particularly risky locations dependent on topographical conditions. The fact that relatively few have been found may simply reflect that archaeological investigations seldom have dealt with such peripheral structures.
- 2 According to Theo Kölzer (2014 a: 38-9, 49, Fig. on p. 51, 2014 b: 257-8. Fig. 1), the diploma of AD 834 has only survived as slightly extended copies from the 12th century, and in a print from the 17th century, all of which refer to a pseudo-original of a diploma from AD 1158, which has disappeared. The authenticity of this diploma has been debated by researchers for a long time; most recently by Kölzer (2014 a, 2014 b, with references) and Henrik Janson (2014, with references), who used different methodologies in their interpretations and achieved diametrically opposite results. Kölzer argues that, although the date of the document (May 15 834) can be regarded as reliable, the surviving version of the imperial privilege cannot be seen as a foundation charter for Hamburg, This means that Kölzer (2014b: 259) denies the establishment of a Hammaburg (arch-)diocese in AD 831/832, and instead he argues that Ansgar was elevated to missionary bishop in AD 834, made bishop of Bremen in AD 847, and became a missionary archbishop for the Danes and Swedes in AD 864. He also argues that in AD 831 Pope Gregory IV merely granted Ansgar a legation privilege for the mission in the north. This is opposite to Janson (2014: 272-3), who claims that there can be no doubt that the foundation of the bishopric of Hammaburg and the consecration of Ansgar should be dated to May 15 AD 834. He also points out that after Ansgar's death in AD 865, his successor Rimbert is referred to as Archbishop of Hammaburg - and not of Bremen - in documents of AD 865 and AD 868. Pertaining to the views of Kölzer and Janson, which are both based on a long history of research, no judgment is made here; this concise presentation only relates to a few aspects of this complicated matter. The suggestion that the church in Heiligenstedten was built at the same time, or shortly after the fortress of Esesfelth in AD 810, however, is plausible with or without links to Heridag's church mentioned in the 834 diploma.
- ³ I would like to express my gratitude to Prof. Dr. Claus Freiherr von Rosen of the Bundeswehr Command and Staff College, Hamburg, with whom I discussed the conclusions based on archaeological observations and tactical considerations presented below.
- ⁴ By the mid-8th century at the latest, the Carolingian military had access to effective siege weapons, such as catapults (onager, fundibula) as well as missile weapons capable of launching spears, arrows and other missiles

(ballista, carroballista). Other types of siege equipment were constructed locally, e.g. battering rams (arietes) and roofed frame structures that could be rolled to the base of a wall or rampart (testudos) (Bachrach 2001: 107–17; Petersen 2013: 272–86).

- ⁵ During the 9th century e.g. the Normans learned how to deploy testudos against Frankish fortifications (Bachrach 2001: 117; Bachrach 2012: 154–5).
- ⁶ It is important to note that the inner gate posts had not been replaced, which makes it less likely that the other gate posts were replaced because of natural deterioration. This supports the idea that the repairs to the box gate may have been made at the same time as the restoration of the ditches.
- ⁷ To explain the decline of Esesfelth with the transfer of the administrative tasks to Hammaburg in AD 834 would perhaps be more convincing if it was beyond doubt that Hammaburg was made a bishop's see at the same time. However, the transfer may still have happened even if Ansgar was merely appointed a missionary bishop based in Hammaburg, considering the grave measures taken against Bishop Ebo at the time.

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