Preface

Few archaeological excavations can have been more keenly anticipated than that of the chamber grave at Fregerslev in East Jutland. The reason was at least in part that the excavation had been a long time coming. As early as 2012, the first traces of a very unusual grave were discovered in an archaeological survey prior to the development of a suburban area outside the town of Hørning (Fig. 1).

On this occasion, parts of a richly decorated horse harness were found lying immediately below the topsoil in the outline of a large feature cut into the subsoil. The discovery immediately made it clear that the feature was almost certainly the remains of an equestrian grave from the 10th century — one of the most distinctive forms of burial known from Viking-Age Denmark.

Finds of Viking-Age elite graves are rare. The custom of burying the most powerful men of the time in chambered graves with equestrian equipment is known from c. 78 finds from the Viking Age in the old Danish area, i.e. present-day Denmark together with Skåne, Halland, Blekinge and Schleswig Holstein. Few of these burials are well documented; the majority are old, incomplete investigations or simply finds made during the clearings of mounds. The most recently excavated equestrian grave thus appeared more than three decades ago, in 1983 at Grimstrup near Esbjerg.

It was therefore clear from the outset that the chamber grave was a valuable archaeological

Cover figure. A six-metre-tall, embroidered equestrian statue, created by Kate Skjerning for the 2018 eSCAPE event, was part of the story of the Viking on site. Photo: Per Bille.

discovery. It was first attempted to preserve the find in situ. In 2016, however, a follow-up investigation revealed that the grave and its contents were undergoing major degradation. Therefore, it was decided that an excavation was necessary if the finds were not to be lost. A project group consisting of Anne Pedersen (The National Museum of Denmark), Silke Eisenschmidt (Museum Sønderjylland), Søren M. Sindbæk (Aarhus University), Merethe Schifter Bagge, Ejvind Hertz and Lene Høst-Madsen (Museum Skanderborg) was formed, and thanks to funds from The Augustinus Foundation, A.P. Møllerske Støttefond, The Agency for Culture and Palaces and Skanderborg Municipality it was possible to plan for a proper research excavation of the complex.

Archaeological investigations are notoriously characterised by the fact that it is rarely possible to foresee what the excavations will bring. Planning must therefore be based on as well-founded an estimate as possible. In this case, the starting points were, in fact, unusually comprehensive: the preliminary finds and the size of the burial pit indicated that the chamber was unusually large. This was supported by geophysical studies, which suggested that there might be up to three individual graves, and that in some areas there might be substantial deposits of metal objects.

When the long-awaited excavation finally took place in the summer of 2017 (Fig. 2), we were surprised both by the things that were found, and by what we did not find. The eastern part of the monument – the area of the supposed additional graves – proved to be a modern disturbance. In the grave itself, no direct trace of any skeletal remains could be seen. Large areas of the grave appeared at first to be empty, and the objects exam-







Figure 1. Drone image from the site, the excavation in the middle almost surrounded by brand new houses. Photo: Businessfilm.dk.

Figure 2. One of the first days of the excavation. Photo: Museum Skanderborg.

Figure 3. The public was given access to the site during excavation, and about 5000 people, both locals and visitors from far and wide, took advantage of this opportunity. Photo: Museum Skanderborg.

ined at the site were severely degraded. In areas where traces of metal objects were observed, large blocks of soil were taken out for subsequent excavation in the laboratory. When the excavation in the field was completed after a few weeks, it therefore appeared as if very little had been found. Fortunately, that was only the beginning.

Since then, results of the meticulous excavation in the laboratory have begun to emerge. As the large blocks of soil have been examined, more than 700 metal objects have been uncovered far more than anyone would have dared to guess. Several of them are rare or quite unknown object types. The severe degradation seen both before and during the excavation was not understated. Many of the items that came to light in the lab were so corroded that they would probably have been destroyed without a trace by a conventional excavation. At least as revealing were the results of the scientific analysis, some of which are presented in this publication. They brought to light the presence of the deceased and of multiple deposited items, which had not otherwise been detectable during excavation.

The burial that we are now beginning to reconstruct fully stands up to the high expectations raised before the excavation. This is due not only to what was actually buried in the Viking Age, but to a great extent also to the way in which it was excavated. If the excavation at Fregerslev had not been assigned the care it was given, with the use of the most modern technologies, we would have understood only a small part of the find and its significance.

The excavation of the equestrian grave from Fregerslev shows how much investigation methods can mean for the value of a find. We can only speculate as to what might have been revealed in the many seemingly empty or half-empty graves which have been documented over the course of time by more typical excavations, had these been investigated with similar methods. Fregerslev has thus helped to improve the potential of field archeology, and may help to raise the bar for the investigation of graves.

Archaeological work in Denmark today is largely based on rescue excavations under Chapter 8 of the Museum Act, which sets a very restrictive framework for the approaches that can be applied, and in particular for the extent to which new methods can be experimented with. For this reason, it is imperative that, in addition to developer-led excavations, research-based excavations such as the Fregerslev investigation, which can develop and explore new approaches, are also carried out.

Choosing a research approach also involves a high degree of risk. Some of the study methods tested in Fregerslev have not yielded immediately useful results. This is an integral and important part of the research premise that the Fregerslev excavation shares with other large complex research projects, such as – to mention some well-known Danish examples – at the medieval settlement Viborg Søndersø, the Jelling monument complex or the Bronze-Age mound Skelhøj. Each of these have been instrumental in developing archeology's potential in directions that could not always be anticipated.

In addition to this purely scientific value, the project also contained an important dissemination element. The public could be in no doubt about the significance of the find: the many neighbours followed the excavation closely. During the actual research excavation, there was continuous dissemination in the form of, among other



things, public access, guided tours (Fig. 3), live updates and daily updates via the website and Facebook. More than 100,000 unique users have visited the website of the Fregerslev Viking (www. vikingfregerslev.dk). Another most welcome visitor on site and in the preliminary exhibition at Museum Skanderborg was Her Majesty Queen Margrethe II, who showed great interest in the find.

The grave from Fregerslev also became the subject of the 2018 eSCAPE event. The eSCAPE is an annual/biannual event in Skanderborg Municipality. It aims to blend art and cultural heritage on sites with a strong archaeological DNA. eSCAPE is a collaboration between Museum Skanderborg, Art Council Skanderborg, Visit Skanderborg and Skanderborg Municipality. The big event took place on 31 August at the site. Three plots around the grave were still empty, while the rest of the area was almost fully developed with suburban houses, so there was plenty of room for the activities. More than 1500 people participated (see https://www.youtube.com/watch?v=sCrp5b-jzHJo; Cover figure).

As part of the future development of the neighbourhood, the plot where the grave was found is going to be a place where children can play, and grown-ups can meet. So the Viking from Fregerslev will no doubt be remembered in the modern local community and bring a special pride to the inhabitants of Vestergårds Allé.

Between research and outreach, there was a research conference entitled *Horse and Rider in*

Figure 4. The participants of the conference Horse and Rider in the late Viking Age – Equestrian Burial in Perspective, *June 2019. Photo: Museum Skanderborg.*

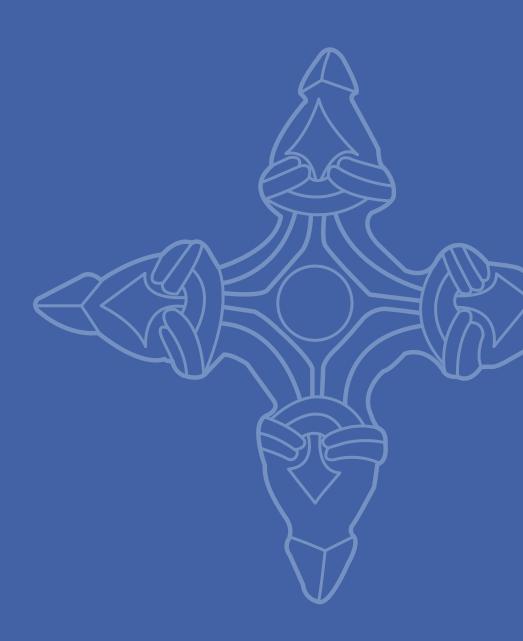
the late Viking Age – Equestrian Burial in Perspective, which was held at Skanderborg Town Hall on 27–28 June 2019 with the participation of 67 researchers from Denmark and abroad (Fig. 4). One session of presentations outlined the many results from the investigations of the graves, while a second placed them in a wider context and discussed the many issues arising from the find. This book brings together the contributions and emphasises that the Viking grave in Fregerslev is a valuable archaeological find which, thanks to the use of modern survey methods, makes several important additions to our knowledge of Viking-Age society.

The Viking from Fregerslev has thus gained an afterlife in the local community, where the story of him lives on, and he has gained a place in the national and global research scene, where the finds and results of the multi-faceted investigations will help to set new standards.

Happy reading, Lene Høst-Madsen & Søren M. Sindbæk

PARTI

Fregerslev II Excavation and analyses





The Equestrian Chamber Grave, Fregerslev II

Initial results from an elite Viking-Age burial in East Jutland, Denmark

MERETHE SCHIFTER BAGGE & EJVIND HERTZ

Introduction

Societal structures in southern Scandinavia developed gradually throughout the Viking Age, and a kingdom ruled by Gorm the Old was in place in the beginning of the 10th century. Around 958 AD, the kingship was passed to Harald Bluetooth. Not much is known regarding the administration of this kingdom - how it was facilitated and by whom - but it seems likely that the king had a network of trusted chieftains and/or allies who saw to the daily management of various local areas (Pedersen 1997). Such local administrators were probably in charge of everyday societal organisation, including taxes and the maintenance of local infrastructure, as well as military-based management of the local army and defence structures. Such a role must have required a certain amount of power within the local area (Lund 2005). Thus, these administrators were probably confidants of the king. Perhaps the findings from the 2012 excavation of a burial in Fregersley, south of Hørning, are the remnants of a person of such standing?

The discovery of a previously unknown Viking burial, let alone an unusually rich one, was

Cover figure. Excavating the equestrian burial at Fregerslev II. Redox layers appear as we reach the bottom of the grave. The small plastic swords mark traces of metal. Photo: Merethe Schifter Bagge.

unexpected to say the least. Nevertheless, a large, promising-looking grave was found in 2012 during an archaeological survey in Fregersley, a cadastral district beside the town of Hørning close to Skanderborg in Jutland. A stone had been removed from one of the corners of the grave relatively recently, which revealed several metal objects, such as gilded harness mounts and a fragmented horse bit. Thus, it was immediately evident that the burial was that of a high-status equestrian individual from the mid-900s.

88 burials with horse gear and/or a horse are known from Viking-Age Denmark (including Schleswig in Germany and Scania). The majority of these burials were excavated in the 1800s and the early 1900s, so just 15 of these graves are considered to have been professionally excavated (Pedersen 2014.2, 176 and find list 8). The equestrian grave from Grimstrup is the most recently found; it was excavated in 1983 (Stoumann 2009). Expectations of this new find were therefore great, when the research project "Vikingen fra Fregerslev – Blandt rigets mægtigste" ("The Fregerslev Viking – a powerful man") was launched in 2017.

This article provides an introduction to the Fregerslev find. First, the background for the project is outlined, and the local topography, the nearby contemporary finds and the cemetery at Fregerslev II are described. Then follow descriptions of the methodological aspects of the excavation, the grave structure and contents, and the results of the various scientific analyses. A discussion of the conspicuous lack of weaponry, along with a summary of the results and some perspectives for future work, concludes the introduction.

Figure 1. Top: Map of the other sites in the area including the equestrian graves of Ravnholt and Hemstok as well as the Hørning church and Aarhus River shown on topographical maps from the late 1800s.

Below: Digital terrain model of the Fregerslev landscape as seen from the south, based on PrøveCarte Lorens Astrup 1780–1830 (SDFE). The sites of Fregerslev I and II are shown, as well as the Herredsvejen and Fregerslev road structures terminating at Lake Stilling-Solbjerg. Graphics: Casper Skaaning Andersen, Archaeological IT, Moesgaard Museum.

The prelude

In 2012, the Museum of Skanderborg performed a standard archaeological survey in the Fregerslev area due to imminent plans for housing development. The survey revealed a fragmented horse bit and other finds strongly suggesting that an equestrian burial was present at the site, as previously mentioned. It quickly became evident that these finds came from a large chamber grave. By the eastern end of the chamber grave (A238), another large feature (A236) could be seen, which was initially assumed to be an additional complex of chamber graves (Fig. 3). However, in the end, this turned out to date much later than the Viking Age.

Over the following years, large parts of the surrounding area were excavated, revealing a further two Viking-Age graves. It was estimated that the costs linked to the excavation of the equestrian grave would surpass the developer's budget. A research grant was therefore the only way to finance the excavation needed to save the site from destruction (Bagge 2016; 2020).

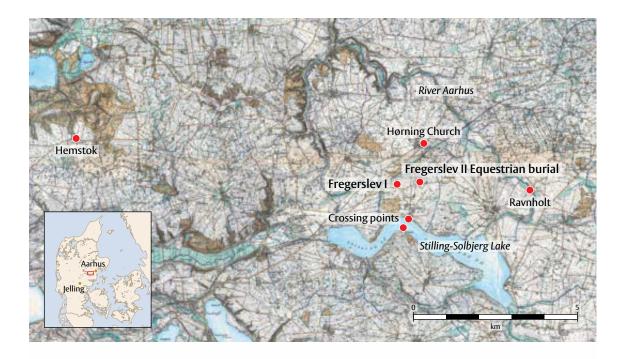
Part one of the research project "Vikingen fra Fregerslev – Blandt rigets mægtigste" received full financing at the end of 2016, graciously granted by the A. P. Møller foundation, the Augustinus Foundation, Skanderborg Municipality and the Agency for Culture and Palaces. This ensured funding for the excavation of the chamber grave, preservation of artefacts, scientific analyses, a website, and public outreach on site and via social media, as well as a subsequent conference and publication. Thus, everything was set for the Museum of Skanderborg to begin the project in collaboration with the National Museum of Denmark and Aarhus University.

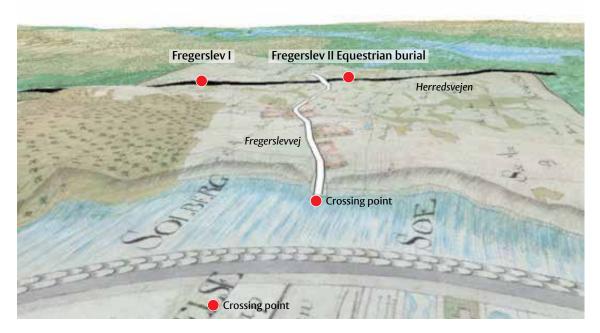
Local topography and other nearby archaeological finds

The last glacial period left the landscape of East Jutland as elevated moraine plateaus with several deep, East—West-orientated valleys, U-shaped in cross section. One of the valleys is 50 km long and contains the lakes Salten, Mossø and Stilling-Solbjerg and the river valley of Illerup (Fig. 1). It was formed by glacial meltwater flowing westwards. Today, the area is drained primarily by Mossø as well as by the Gudenå river in the north, whereas Lake Stilling is drained by the Aarhus River, which ends in Aarhus.

The landscape north of Lake Stilling-Solbjerg rises from c. 50 to 60 metres above sea level, the main level of the moraine plateau. The Aarhus River in the Northeast, the Jeksen Valley in the West and Lake Stilling-Solbjerg in the South are the defining features of the area. The modern-day town of Hørning and an early medieval church are situated on the western part of the plateau. Between Hørning and Lake Stilling-Solbjerg is the cadastral district of Fregerslev. The Fregerslev area provides expansive views of the surrounding landscape.

Some of the infrastructure in the area may be of significant age. The road called Herredsvejen runs along an East—West axis close by the burial ground at Fregerslev II. The road is marked on the earliest maps of the area and is believed to be very old. It probably existed in the Viking Age. The road Fregerslevvej crosses Herredsvejen slightly east of the burial ground and leads south down to Lake Stilling-Solbjerg, where there is a historical crossing point for boats. This road also appears on the earliest maps and is probably considerably older (Fig. 1, below).





The nearest Viking-Age town is Aarhus, located at Aarhus bay 14 km northeast of Fregerslev. Herredsvejen was probably part of a network of roads leading overland to Aarhus. It is also possible that goods were transported on small boats to and from Aarhus, via the Aarhus River to the Stilling-Solbjerg Lake.

Archaeological finds from the immediate area surrounding Fregerslev are sparse at best, but there are several interesting sites in the wider area. A mere 700 m west of Fregerslev II is another cemetery, Fregerslev I. During excavations

in 2002, seven inhumation graves were identified in this small Viking-Age cemetery. Based on the relatively modest grave goods, largely consisting of iron knives and buckles, it appears that the interred people were peasants, probably from a nearby settlement (Bjarnø 2002).

The archaeological surveys linked to the recent restructuring of the Herredsvejen was carried out by the Museum of Skanderborg. Parts of a Migration-period settlement with traces of houses and fencing were uncovered c. 1 kilometre west of Fregerslev II. This, as well as a later farm



Figure 2. The 1.57 m-tall runestone from Hørning ornamented with a band of runes and a cross. Photo: Roberto Fortuna/National Museum of Denmark.

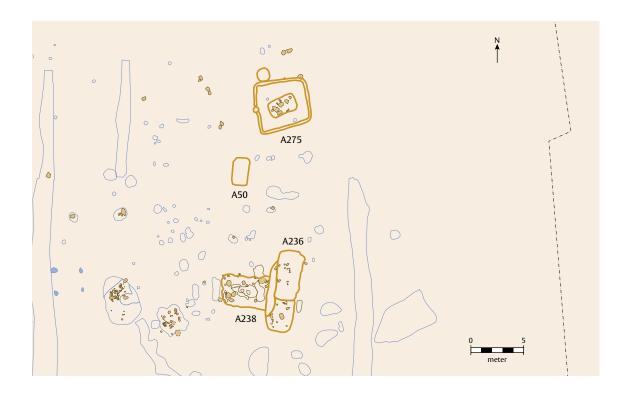
Figure 3. The Fregerslev II burial site. The three graves (A50, A238 and A275) and the later pit (A236) are indicated by light brown lines in bold. Several features with dates ranging from the Late Neolithic, the Late Iron Age and the Medieval period were also present at the site and are marked on the site plan. Illustration: Merethe Schifter Bagge.

modern structures, and these areas have also been surveyed by metal detector. The plateau by Lake Stilling-Solbjerg appears to be the strongest contender for the placement of a Viking settlement and/or farmstead. Large parts of this plateau have, as of yet, not been surveyed by metal detector, and it is possible that the traces of the settlement are located underneath one of the present-day large farms in the area. The crossing point by Lake Stilling-Solbjerg may have been in use in the Viking Age, which might mean that Viking markets took place here.

The search for the Viking farmstead and settlement will continue in the coming years. Furthermore, the Museum of Skanderborg is exploring the possibility of mapping and dating potential landing places for the travellers crossing Lake Stilling-Solbjerg.

In 1849, a farmer, Jens Mortensen, found a runestone (DR 58) while ploughing his fields somewhere in the area between the village of Hørning and Bering Bridge by Aarhus River. The stone was moved to the then Aarhus Museum in the town of Aarhus in 1872;today it is exhibited in Moesgaard Museum (Fig. 2). The extraordinary inscription is a message from a former thrall thanking his master for his freedom and gold. It reads: "Tóki Smith raised the stone in memory of Porgísl Guðmundr's son, who gave him gold(?) and freedom". The runes and the crucifix also

(from the 700s) found a few metres from the equestrian grave, demands further attention; the two together might indicate that the settlement arose 1 kilometre west of Fregerslev II and then migrated east. This would place the Viking-Age settlement (at present not identified) a little south of Fregerslev II on the shore of the lake. Metal detectorists have surveyed select parts of the area between the chamber grave and Lake Stilling-Solbjerg, but only a few contemporaneous objects have been found, suggesting that the Fregerslev Viking's base may have been located elsewhere. Some of the local place names – for example Sals Bjerg (house on a hill) and Gammel Toft (old farmstead) – might indicate the presence of pre-



portrayed on the stone suggest a probable date of c. 970–1020 AD (Imer 2016, 95). The stone is thus slightly later than the Fregerslev equestrian burial.

The neighbouring areas hold two further equestrian burials besides the Fregerslev grave. At Ravnholt, c. 3.5 km east of Fregerslev, gravel extraction workers unearthed a range of artefacts in 1930: an iron sword, an iron spearhead, fragmented iron spurs, two silver-inlaid stirrups, four fragments of stirrup fittings, a bit and three iron buckles, probably from a disturbed burial similar to the Fregerslev grave (Pedersen 2014.2, 95). During the 1860 destruction of one of the burial mounds at Hemstok 11 km west of Fregersley, several artefacts from an inhumation grave were discovered. These included a sword, an axe, a spearhead, a shield boss, two stirrups and harness mounts, as well as a range of indeterminable iron objects (Pedersen 2014.2, 94). Both graves date to c. 925-975 AD. Judging from the horse tack, it is possible, however, that the Hemstok burial took place slightly later than its counterparts at Ravnholt and Fregerslev (Pedersen 2014.1, 153-154).

The Fregerslev II cemetery

The site of Fregerslev II consists of three inhumation graves, including the equestrian burial A238 (Fig. 3). The graves are placed together on

a North-South axis spanning 20 m on a natural hilltop. The eastern edge has a dramatic slope, whereas the other corners only drop slightly. The burial site is regarded as 100 per cent excavated. The exact relationship between these three Fregerslev II graves and the Fregerslev I cemetery 700 metres to the west cannot be determined, as the latter can only be broadly dated to the Viking Age. Relatively large geographical distances between rich and modest burials within the same complex are not unheard of, however; Stengade I and II on Langeland (Skaarup 1976) are examples of such a relationship, so it is entirely possible that the two Fregerslev sites were connected. Both cemeteries are located immediately north of Herredsvejen, which, as previously mentioned, may have already been in use in the Viking period, or even earlier.

The three graves at Fregerslev II are very different. The northernmost grave, A275, was found 1.2 m deep in the natural subsoil and contained an oak coffin. Only some very decomposed skeletal material was preserved, but it was possible to determine that one of the tibias of the deceased had been broken. It is unclear whether this was the result of a poorly healed injury, or a post-mortem infliction. Six iron rivets and nails presumably from the coffin were found, but nothing suggested that any grave goods or personal items had been deposited with the interred, although one whetstone fragment was found in the grave fill. Two layers

Figure 4. Top: Photo-textured photogrammetry model of the bottom of the grave with some important preliminary interpretations marked. Light blue: Plank traces. Dark blue: Postholes. Beige: The contour of the soil blocks with the saddle gear and bridle. The interpreted placement of the deceased human and horse are shown by a dark shadow. Graphics: Merethe Schifter Bagge & Kirstine Hedensten.

Below: Photo-textured photogrammetry model of the profile of the west-facing transverse profile of the grave. Graphics: Archaeological IT, Aarhus

University & Moesgaard Museum.

of large boulders and rocks covered the coffin. A small fence surrounded the grave with one larger post to the west, possibly to mark the location. Perhaps a low-lying mound also made the grave stand out against its surroundings. Immediately outside the grave fence, a circular pit was found. No artefacts or bones were found in this pit, but judging by the fill and the placement there is probably some connection to the burial A275; it may be regarded as a sacrificial pit. The grave seems to be a so-called deviant burial, as the numerous large rocks and the fence all seem to have been put up to prevent the deceased from returning from the grave. Similarly, the broken tibia may constitute further precautionary measures. The phenomenon is described in the Icelandic sagas, which testify to the fear that an unnatural death would prompt the deceased to come back to haunt the living (Gardela 2013, 101; for example Eyrbyggja saga). Apparently, fenced graves are exceptionally rare archaeologically, whereas large quantities of stone placed directly on top of the deceased have been found in several Viking burials. In the case of A275, it appears that the stones were placed on top of the coffin rather than on the body itself. However, the number and size of the stones may well have been perceived by the community as an insurance that the deceased could/would not rise again. Body disarticulation, for example the inclusion of decapitated heads in graves, also have archaeological parallels, for example in the Stengade burial FII (Skaarup 1976, 57).

The middle burial, A50, consisted of a North–South oriented burial pit a mere 38 cm deep. It appeared empty except for one fragment of iron. Due to the nature of the fill, the very visible feature measuring c. $2.7 \times 1.7 \text{ m}$ and the level bottom,

it is believed to be a grave. It is unclear whether the grave had been robbed, whether it was a cenotaph, or whether the deposited grave goods were organic material, which would not have preserved.

The equestrian burial A238 is the southernmost grave in the complex. The burial chamber was oak-built and measured c. 3.8 x 2.5 m (Fig. 4). With an area of 9.4 square metres, it is twice as big as the average chamber grave in Viking-Age Denmark, which measures 4.62 square metres (Eisenschmidt 1994, 19-22). Thus, the size compares to the burials at Brandstrup I and Stengade I grave 3 (see Pedersen this volume, fig. 4), the largest Viking chamber burials in Denmark, if one disregards the massive ship burials of Hedeby (9th century) and Ladby. The construction of the chamber was solid, with deep-set roof-bearing posts placed in the centre of each gable, four corner posts and plank-built walls. The longitudinal walls were supported with horizontal wooden planks, whereas the gables were made up of timbers inserted directly into the ground. The western end of the chamber appears to have been split up into a southern and northern room longitudinally. The roof-bearing posts in the centre of the gables are indicative of a saddle roof, a type only previously found in the burial chamber in Bjerringhøj at Mammen (Iversen 1991, 30-40), though the Rosenlund grave in Funen could also belong in this category, according to Anne Pedersen (this volume). It is possible that saddle roof constructions were more common, as our general knowledge about grave construction is limited at best.

The construction and foundation of the burial chamber was solid and the saddle roof prob-



ably made it appear almost as if it were a house for habitation; perhaps it was even decorated with paint and carvings. The bottom of the grave was no deeper than 15-28 cm and the topsoil 15-20 cm thick, so even when gradual erosion over the years is considered, the shallow nature of the grave supports the idea that it was indeed a freestanding, monumental building. Furthermore, the construction of a mound would have left some evidence in the landscape. It is very unusual for an equestrian burial to be this shallow. Normally, chamber burials range from 0.6 to 1.8 m in depth (Eisenschmidt 1994, 22). There are no traces of ditches around the grave that could suggest the moving of soil to construct a small mound, such as is known from Træhede in southern Jutland or Thumby Bienebek and Süderbrarup in Schleswig (Aner 1953; Andersen 1986; Müller-Wille 1987). According to the oldest known maps

from the 1700s, none of the place names suggest that a large mound was present in the area. The most logical decision would seem to be to build a mound on top of the chamber, but is it possible that the chamber was only partially covered? Or even not covered at all? Freestanding burial houses are known from historic times in Sweden, as a practice that continued almost up to the present day. Excavations in Finnmark suggest that the practice could date as early as the transition from the Viking Age to the Medieval period (Jeppesen 1986). Recently, a 10-square-metre building discovered in Vinjeøra in Trøndelag was interpreted as a house for the dead. The house was presumed to have been partly covered, partly visible (Sauvage & Ellingsen 2019).

The building at Fregerslev must have signalled surplus, and a high-status funeral, regardless of whether a mound was present or not, and it seems