

Viking Encounters



Delegates of the 18th Viking Congress assembled at the Trelleborg ring fortress. Photo: The National Museum of Denmark.

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EDITORS

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The logo of the Viking Congress was adopted at the fifth congress in the Faroes. Known in the Faroes as a held (Icelandic: *höglá*), it is a ring made of a locked loop of ram's horn. It was, and still is, used for a number of purposes, but chiefly as a loop attached to a rope and used when carrying hay.

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The Extraordinary Chamber Grave from Fregerslev, Denmark: The Find, Excavation and Future

MERETHE SCHIFTER BAGGE

BACKGROUND

In 2012, the Museum of Skanderborg found a rich equestrian chamber grave during a trial excavation near Skanderborg in Eastern Jutland, Denmark. The site was named Fregerslev II. A stone had recently been pulled up from the grave filling, which led to the find of several metal artefacts without context. Among these metal objects were gilded copper-alloy pieces from a bridle and an almost complete bit of Stengade-type with silvered cheek-plates and sidebars. Two of the gilded copper-alloy pieces were cross-shaped strap mounts. Almost identical finds are known from three graves from the area of Schleswig, i.e. Langballigau mound 1 (Müller-Wille 1974), Thumby Bienebek 37A (Müller-Wille 1987) and Quern-Scheersberg grave 3 (Müller-Wille 1977; Eisenschmidt 2004). These three graves are all considered very well-equipped, especially Thumby Bienebek 37A, which contained a gaming board, an iron axe, two bridles, an iron spearhead, two iron spurs and two stirrups, as well as a wealth of other grave goods. The Fregerslev grave was almost 3 x 4m on the surface, making it one of the largest chamber graves ever found in Denmark. Of course, the expectations for the contents of this grave were high, and the cost of the excavation was too high for the developer to accept. Therefore, an area around the grave was taken out of the development plans. In 2013 and 2014, the surrounding areas were excavated. Several indications of prehistoric activity were found, for example culture layers from the Neolithic, settlements from the Late Bronze Age and Late Iron Age, and of particular interest to this paper, two other graves from the Viking Age. These graves were situated just north of the equestrian grave, suggesting that the burial site should be viewed as a small complex with three graves in total. These two burials will be described later in this paper.

In 2015, the Valetta Convention from 2001 was brought into action, and it was decided that the chamber grave was to be preserved *in situ*. Preparation for the *in situ* preservation began, and the topsoil was taken off the chamber grave once again. During the process, the grave was measured electromagnetically, and a soil block was removed to be micro-excavated, as metal corrosion was visible on the surface just next to the area where the bit and strap mounts were found in 2012. The X-ray of the soil block revealed several items for a horse bridle, almost all made of gilded copper alloy. Five more cross-shaped strap mounts of the exact same type as the two found during trial excavation were present in the block. Sadly, the condition of these mounts was far worse than that of the ones found in 2012. This suggested that the conditions were too poor for *in situ* preservation. In cooperation with the National Museum, the University of Aarhus, The Danish Agency of Culture and Palaces and the Municipality of Skanderborg, the Museum of Skanderborg made an application for

Figure 1. The burial site at Fregerslev II and other settlement traces from the Stone Age (cultural layers), Late Iron Age (the grey houses) and Middle Ages (field structures). Graphics: Merethe Schifter Bagge, Museum Skanderborg.



funding in 2016. The aim of this research project was to secure the finds from the chamber grave as well as to ensure that subsequent analyses and conservation could be undertaken appropriately. The funds for the main aim of the research project, i.e. excavation, conservation and scientific analyses, were obtained at the end of 2016. Five years after the find was discovered, excavation and preservation of the chamber grave could finally take place (cf. Bagge 2016a; 2016b; 2018; 2019a).

THE BURIAL SITE AND THE SURROUNDING AREAS

The burial site consisted of three graves including the equestrian grave (**Fig. 1**). One (A50) did not contain any preserved grave goods or remnants of the body. The grave was rectangular and measured 267 x 172cm. The orientation was N-S and the depth of the grave was 38cm. The other one (A275) was rectangular and oriented WSW-ENE. The grave measured 265 x 170cm in the surface. At the bottom at about 120cm depth, the remains of a 186 x 71cm oak coffin were found, as well as the skeletal remains of a person lying on his back with his arms along his sides. The left tibia showed signs of quite severe damage with a 90-degree break in the centre. The length of the tibia suggests that the buried person was most likely male, as he would have been around 165-170cm tall. On top of the plank coffin two rows of large stones had been placed, and on the surface, traces were observed of a low fence with a central deep post in the western side that had surrounded the grave. This grave was deviant in many ways, which might imply that a very unusual man had been buried here. Only a few nails from the coffin were left in the grave and no potential grave goods were preserved. A ¹⁴C dating, based on a piece of the oak coffin, suggests that the burial took place in the 9th century. Considering that the oak was probably already old when used for this purpose, it seems plausible that the three burials were contemporary, from AD c. 950, as was suggested by the typological dating of the mounts from the harness.

The combination of apparently find-poor graves and a rich equestrian grave is not unique. Stengade I on the island of Langeland is another example. Here the burial place consisted of

three graves besides the equestrian grave, where two of them contained a skeleton and a knife. The third one, grave 2, was a weapon grave (Brøndsted 1936).

A minor burial site dating to the Viking Age, Fregerslev I (Bjarnø 2002), had been found in 2002 just 700m west of Fregerslev II. The burial site consisted of seven graves containing knives and iron buckles, both common burial equipment in Denmark throughout the Viking Age. The distance between these two burial sites, Fregerslev I and II, suggests either a differentiation in time or a distinct definition of different status of the buried people. The latter explanation is supported by, for example, the two sites Stengade I and II, where approximately 450m separates the rich and common burials (Skaarup 1976, 10).

The area just south of the two burial sites has never been excavated and consists of a few farms and fields, whereas almost the entire area to the North, West and East is well excavated due to recent building activity. None of these areas showed signs of Viking-Age settlement. Recently, several metal-detectorists have explored the southern area and a few Viking-Age finds have emerged. However, these are too few and too poor to suggest the presence of a chieftain's settlement. Nevertheless, the lake of Stilling-Solbjerg is around 1km south of Fregerslev II, and a likely old road connects the grave and the lake, terminating in an old crossing point. If one does not cross the lake here, a longer detour lies ahead. The crossing point has not been dated but might be prehistoric, and thus would have been an important place to control. It seems likely that the chieftain's settlement was situated near the lake, perhaps under one of the modern farms.

THE EQUESTRIAN GRAVE

The large chamber grave (A238) was situated just south of the two other graves (A50 and A275), on a natural hilltop c. 60m above sea level, just a little bit off the crest. There is an extensive viewshed from the grave. On a clear day it is possible to get a glimpse of *Jelshøj*, a Bronze Age mound near Aarhus, about 10km away from Fregerslev II as the crow flies. The oldest known hand drawn maps of the area dating to 1779 show no indications of a mound in this spot. Likewise, there were no ditches surrounding the grave that could have implied a mound. The topsoil was only c. 15-20cm thick.

Right next to the chamber grave, a large pit (A236) was dug in the 18th century. Almost 17 cubic meters of sandy, gravelly soil were removed for unknown reasons, and subsequently the pit was filled with topsoil and stones of various sizes. It is possible that this incident dramatically altered the appearance of the chamber grave as, if a mound had ever been present, these stones and topsoil may have originated from it. The soil from the 18th-century event was thoroughly examined in a wet-sieve, and among a wide range of material, such as glazed pottery and a clay pipe, a few handcrafted nails emerged. These could originate from the chamber grave. However, this is not conclusive and requires further analysis. If the nails do, in fact, date to the Viking Age, it might suggest that the modern activity did disturb the upper part of the chamber grave. The bottom of the grave shows no conclusive signs of modern disturbance except for the damage from the stone that was pulled up prior to excavation. However, the transverse profile of the grave shows a possible later disturbance in the middle of the grave, and maybe larger items were removed at that point. Luckily, the modern pit ran

perpendicular to the Viking grave, leaving a 10cm space between the ditch and the eastern wall of the chamber.

The timber-framed chamber measured around 378 x 254cm or 9.4 square metres, making it one of the largest Viking-Age chamber graves in Denmark. On the other hand, the maximum preserved depth of the grave was only 28cm, and thus the Fregerslev II grave is one of the shallowest equestrian graves ever found. The construction of the chamber as well as the evidence of c. 80cm-deep roof-bearing posts in the centre of both end walls indicate that it was a solid building with a saddle roof. Only one similar construction is known from Bjerringhøj in Mammen, about 50km northwest of Fregerslev; in this case a mound burial (Iversen et al. 1991). The low depth and the solid building could suggest that the chamber was meant to be visible on the surface, perhaps decorated with carvings and colours. It is, however, also likely that a low mound of soil that was dug up during the construction of the grave covered the chamber.

A longitudinal plank and a post in the centre of the western end divided the grave into two rooms. There is no evidence of this plank under the horse harness, suggesting that the division of the grave was only present in the western part. In similar equestrian chamber graves with preserved skeletal remains, the deceased has typically been placed in the northern or central part of the grave. For example, in the cases of Stengade I grave 3 (Brøndsted 1936, Fig. 10) and Grimstrup (Stoumann 2009, Fig. 7), the deceased was placed in the northern part. Based on these parallels, as well as the construction of the chamber, it seems likely that the division of the Fregerslev grave created a clear differentiation between the deceased and the grave goods and perhaps even eliminated the need for a coffin, as this barrier was constructed.

THE GRAVE GOODS

As the conservation of the grave goods is still being undertaken, the following descriptions are preliminary. In total, 13 large soil blocks were block-lifted from the grave to be micro-excavated in the laboratory. Most of the blocks contain many severely corroded metal objects from a horse harness. This harness clearly dominates the grave assemblage. Furthermore, a quiver with 22 arrows, traces of a horse and a silver buckle were found and will be described later in this paper.

The horse harness had been carefully placed and arranged in the north-eastern corner of the grave. The bridle lay separately in a pile closest to the eastern wall and, immediately to the west, remains of a saddle and the rest of the harness were found. The harness took up about a fourth of the total area of the grave, and more than 700 metal objects belonging to this harness are visible on the X-rays. Due to the severe degradation of the objects, small fittings that cannot be seen on the X-rays continuously appear when the conservators examine the blocks. The final number of fittings will probably exceed 800. The horse bridle is the only object that has been fully excavated and analysed as of yet, given that it was discovered in 2012 and 2015. A single cross-shaped strap mount from the bridle appeared in the final excavation in 2017. In total, 36 gilded copper-alloy fittings of four different types had formed part of the bridle. Eight of them are cross-shaped strap mounts (**Fig. 2.1**) in the Jellinge style (Müller-Wille



Figure 2. The five different items from the bridle. Photo: FOTO & CO.

1987, 40) or a stylized version of a combination of Borre style and Jellinge style (Pedersen 2014, 164). These mounts consist of four arms, each with a stylized animal head at the end. In the middle, there is a raised cone. Direct parallels to this type of mount are known from two equestrian graves, Langballigau mound 1 and Thumby Bienebek grave 37A. In addition, stray finds of this type of mount are known from Gl. Lejre on Zealand, Engsiggård in West Jutland, Skærvad in Eastern Jutland and Kertinge on Funen (Bagge 2019b, 87-92), as well as from the Viking settlement in Kaupang, Norway (Hårdh 2011, 56). Other very similar finds in the Borre style, where the eyes and snouts of the animal heads are more expressed, are known from different places in Schleswig both as burial finds and as single finds from settlements, i.e. Thumby Bienebek grave 37A, Quern-Scheersberg, Hedeby and Ellingstedt. A cultural layer in London also contained a cross-shaped strap mount (Ayre & Wroe-Brown 2015, 156), and stray finds from Gudum, Tisstrup and Høgsbrogård in West Jutland and V. Egesborg on Zealand (Bagge 2019b, 87-92) all support the notion that a large number of these strap-mounts were produced and distributed widely especially in Viking-Age Denmark, but also in England and Norway. The two variations of the cross-shaped strap mount are assumed to be contemporary and belong in the first half of the 10th century (Klæsøe 1999, 124; Müller-Wille 1987, 91). S. Eisenschmidt suggests that the stylized version, as seen in the eight pieces from Fregerslev, is the latest (1994, 157).

Four rectangular buckles (**Fig. 2.2**) measuring 3.7 x 2.3cm and made of gilded copper alloy had also been part of the bridle. The ornamentation consisted of rows of small bulbs. There are no known direct parallels, but rectangular buckles made of iron are known for example from Thumby Bienebek grave 37A, bridle 1 (Müller-Wille 1987, 39-40, Taf. 81: 6, 8, 10, 11). Buckles used in bridles are normally D-shaped. A highly degraded D-shaped buckle was also

part of the Fregerslev bridle. It was situated near the bit and was probably meant for adjusting the bridle under the chin of the horse. Remnants of leather straps are preserved in some of the rectangular buckles and suggest a 1.4cm-wide strap.

A minimum of 17 small mounts (**Fig. 2.3**), c. 2.5cm long and 1.4cm wide, the shape of which can best be described as rectilinear figures of eight surrounding a central ring, were likewise made of gilded copper alloy. The small mounts were attached to the sides of leather straps, presumably in pairs. Some of them are severely corroded and only traces of the gold foil are preserved. It is therefore possible that more than 17 were originally present. The mounts have a direct parallel in Langballigau mound 1 (Müller-Wille 1974, 104-105, Abb. 29-30). The similarity is so striking that it must be assumed that the same casting mould was used. The Langballigau grave is a cremation burial, and the grave goods were placed on the pyre along with the deceased. The mounts are therefore somewhat damaged by fire, which complicates the comparison. Nevertheless, the details are so similar that it is, indeed, likely that the same casting mould was used for the two sets. This type of mount did not serve any practical function on the bridle and must be regarded as pure decoration.

Apart from the cross-shaped and figure-of-eight mounts, the bridle was fitted with seven harness pendants (**Fig. 2.4**). The pendants are two-linked and consist of a circular loose hanging piece, c. 1.3cm in diameter, and a 4cm-long piece attached to the leather. The loosely hanging piece perhaps made a sound when the horse moved. The longer piece has an animal head on the one end and nine semicircles are placed along the sides. The circular piece has a raised point in the middle, and, around that, two twisted threads form a ring. The pendants do not seem to serve any practical function on the bridle and are therefore regarded as decoration. Similar pieces are found in Thumbby Bienebek grave 37A (Müller-Wille 1987, 40 and Taf. 79; 80, 1-3, 6-8) and Stengade I (Pedersen 2014, pl. 14:2), but all appear somewhat larger than the ones from Fregerslev and no direct parallels are thus known.

At least five small strap ends (**Fig. 2.5**) of copper alloy also formed part of the bridle. 1.5cm wide, these ornamented moulded fittings were attached to the end of a leather strap. They have direct parallels in the finds from Langballigau mound 1 (Müller-Wille 1974, 104, Abb. 29, 10-11, Abb. 30, 10-11), but very similar strap ends are likewise known from Thumbby Bienebek grave 37A (ex. Müller-Wille 1987, Taf. 76; 2) and in Quern-Scheersberg (ex. Pedersen 2014, pl. 47: 4).

The bit from the bridle is poorly preserved but on comparison of the remains with the X-rays, it is evident that we are dealing with a two-linked snaffle bit with side bars (with a minimum length of 18cm) and cheek-plates. The mouthpiece has a cross-shaped section. The cheek-plates and the side bars are made of iron and furthermore decorated with ornamented silver on a base of a tin and lead alloy. A pattern of twisted thin wires combining broad and narrow wires and wires of small beads is pressed into the silver plates. All things considered, the bit is very similar to the one from Stengade I, grave 3 (Brøndsted 1936, fig. 73) and bridle 1 from Thumbby Bienebek grave 37A (Müller-Wille 1987, 37-38, Taf. 75).

In conclusion, the bridle from Fregerslev is a rare piece from Viking-Age Denmark as only four other bridles with gilded fittings are known (the others include: Thumbby Bienebek grave 37A, Langballigau mound 1, Quern-Scheersberg grave 3 and Nr. Longelse; cf. Stoumann 2009). In Fregerslev the bridle must have been overloaded with gilded fittings. Thus, it is rare to find

more than four cross-shaped strap mounts for one bridle, and in Fregerslev, there are eight. The presence of only one bit tells us that no more than one bridle was placed in the grave.

The rest of the horse harness found in 2017 is, as previously mentioned, still being excavated in the laboratory, and the following are preliminary results based on X-rays and the items excavated thus far. Around 700 metal items from the harness appear on the X-rays. Most of them are small silver-plated fittings made from a tin and lead alloy, but several larger fittings and strap ends have also been uncovered. Only a few larger buckles are made of iron and are presumably associated with the straps for the stirrups or the girth.

The small decorative fittings are about 1-3cm in length and come in eight variations: keyhole-shaped, duck-feet-shaped, small-leafed rosette, broad-leafed rosette, two variations of cross-shaped, and two variations of square-shaped with 'arms'. The duck-feet-shaped fittings were probably mounted on the reins as these are the only ones placed in rows. The other ones must form part of the saddle equipment, maybe as decoration on a rug or as a jingle-plate placed on the rump of the horse. Similar decorative fittings are found in other graves, among them Stengade I, grave 3 (Brøndsted, 1936), Grimstrup, grave A (Stoumann 2009, 149), Ladby, riding gear III-IV (Sørensen 2001, 87) and Thumby Bienebek grave 37A (Müller-Wille 1987). In general, these small fittings are highly degraded, and we must assume that several have disappeared completely and are thus not even visible on X-rays. It is likely that they were much more common than we know of today, as it seems plausible that they were not recognized during the antiquarian excavations of chamber graves in the 19th and early 20th centuries, given that they would have been almost invisible. During the excavation of Fregerslev in 2017, some of the fittings were only visible as tiny white/blue spots in the ground.

Remnants of a saddlebow with beautifully ornamented mounts were found in the northern part of the area where the pieces for the harness were concentrated. A saddle must therefore also have been part of the grave equipment. It appears that the wood from the saddle had decorative carvings between the mounts. In addition, a double silver-plated tin-lead plate with beaded ornamentation decorated the bow on both sides. Very little evidence of saddles has survived in equestrian Viking-Age graves, but they are assumed to have formed part of the grave goods in Thumby Bienebek grave 37A (Müller-Wille 1987, 44) and in Grimstrup grave A (Stoumann 2009, 71). Two well-preserved saddles have been recovered from the 9th-century ship graves from Borre and Oseberg in Norway, and a well-preserved saddlebow from the Late Viking Age appeared during restoration of the church of Alskog, Sweden, in 1964 (Nylén 1972).

The south-eastern corner of the Fregerslev grave seems rather empty, as it yielded only a few unstratified finds. One of the finds, a very fragile piece of tooth from a large animal, presumably a horse, suggests that a horse, or parts of a horse, was likely sacrificed and buried in this corner.

We expected to find a pair of stirrups, but none were present in the grave. Were they not included? The presence of a saddle strongly suggests that stirrups were part of the riding equipment. Modern ploughing could be the reason for their absence. If the stirrups lay on top of the harness, they could have been ploughed away relatively recently. Another theory is that intruders removed the stirrups from the grave, or that they were made of organic material.

In the western end, just south of the plank that separated the two areas of the chamber, a quiver with 22 arrows (**Fig. 3**) was found, the arrowheads pointing to the east. It is likely that

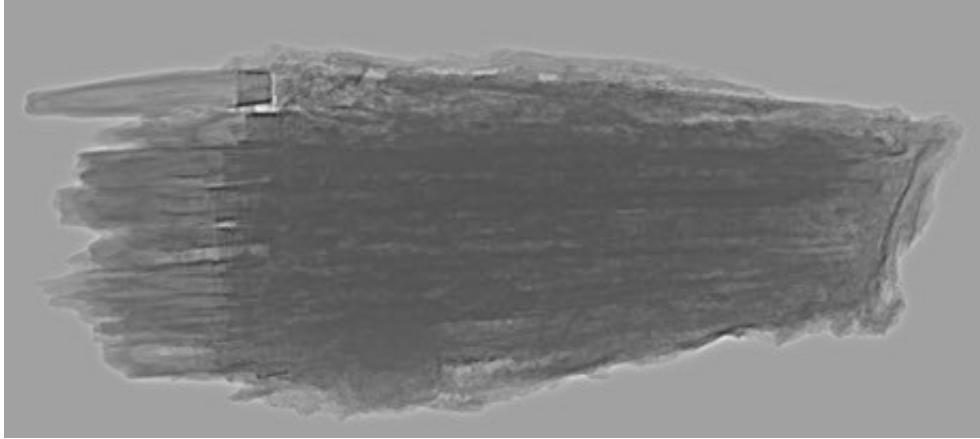


Figure 3. X-ray photo of the quiver with arrows; to the left remnants of the wooden shafts and to the right the quiver and arrowheads. The metal wire is visible on all arrows. Photo: Department of Archaeological Science and Conservation at Moesgaard Museum.

the quiver was placed standing upright towards the middle plank and then fell over when the chamber collapsed. The 22 arrows are highly corroded and are thus only visible in CT-scan imagery and on X-rays. On the CT-scan, the arrowheads appear to be narrow and lanceolate with a 4cm-long blade and 6cm-long shaft, their shape thus corresponding to type A2, according to Erik Wegraeus (1971, 14). Type A2 arrows were present in Denmark and Sweden during the 10th century and belong to the Mälaren Valley tradition, together with type D1. In Sweden, A2 arrows are concentrated in Uppland, Västmanland and Gästrikland (Wegraeus 1986, 24, Abb. 4:3). In Viking-Age Denmark, secure finds of type A2 and D1 have been found at Trelleborg, Ladby, Tissø and Hedeby (Lindbom 2006, 162). Arrows are recorded in 21 burial contexts, but in most cases, the type is broadly described as type A, and in some cases narrowed down to type A1. A few cases of type D and D2 are also among the burial content in Denmark (Pedersen 2014, 137, find list 4). It has been suggested that the A2 type was meant for warfare (Wegraeus 1973, 203; Lindbom 2006, 165).

The arrows from the Fregerslev grave are wound with a thin metal wire at the arrowhead socket. After winding the wire about 12 to 15 times around the socket, the two loose ends are twisted to keep the binding from unravelling. The preliminary results from the metallurgy analysis suggest that the wire was made of a copper alloy, maybe brass. Metal wires of silver and copper alloys on arrows are a rare phenomenon, which is probably due to the high degree of corrosion. A further examination of known arrows would probably result in a higher number of this impressive high-status decoration. In the case of Fregerslev, the assemblage of arrows from Birka grave 519 offer a distinct parallel (Wegraeus 1986, 33, Abb 4:18). The technical skills used for winding the thin wire around the arrowhead socket in Bj 519 (brass wire) and Fregerslev are identical, and the possibility that they were produced by the same workshop cannot be ruled out.

In the north-western corner of the grave a silver buckle had been placed in the area where we would expect the chest of the deceased. The buckle is c. 3cm long and slightly oval, with



Figure 4. Digitalized plan showing the contours of the grave. Light blue: Corner posts and roof bearing posts. Dark blue: Traces of planks. Yellow star: Finds. Dark beige: Soil blocks with material from the harness, saddle and bridle. Background: The bottom level of the grave. Graphics: Kirstine Hedensten, Museum Skanderborg.

two triangular ends. The ends each contain a piece of triangular rock crystal. The buckle is so corroded that interpretation is difficult; however, based on X-rays and microscopic analysis it is possible that this piece was a brooch.

INTERIM CONCLUSIONS AND DATING OF THE GRAVE

There is no doubt that the chamber grave from Fregerslev belonged to a powerful horseman associated with royalty. The royal connections are strongly suggested by the valuable and impressive riding gear, which is a rare sight in 10th-century equestrian graves. As Anne Pedersen and Thorsten Lemm suggest, the full riding gear could be a symbol of the warrior's rank (Pedersen 1997, 132; Lemm 2016, 106). Especially the wide distribution of the cross-shaped strap mounts indicates that these types of bridle could have been mass produced, perhaps as a commission from the king to give to his allies.

It is also highly plausible that the grave was disturbed in the Viking Age or in the 18th century, at the time when the larger pit was dug. There are several items missing which ought to be present given what we know of other rich equestrian graves, such as one or more weapons, stirrups, spurs, a knife and personal items (cf. **Fig. 4**). The remaining conservation and micro-excavation of the grave goods could yet reveal new information about the contents of the grave. Thus, signs of a gaming board, spurs, and buckets might still show up.

It was hoped that remnants of a post in the centre of the western wall could provide a dendrochronological date for the grave, but with only 41 tree rings preserved the plank was not suitable for dendrochronology. A ^{14}C dating of the youngest tree ring has been analysed, suggesting that the tree was felled in the Late Viking Age. The felling of the tree could be placed in the second half of the 10th century with c. 52% certainty when 30 years are added, as no sapwood was present. When these results are combined with the typological dating of the fittings from the bridle, it is likely that the burial took place in the decades around AD 950. A wiggle-match of the plank is on its way, and hopefully it will bring a more precise dating of the grave.

FUTURE AND ONGOING SCIENTIFIC EXAMINATION

As of yet, only interim results from the excavations are available, due to ongoing micro-excavation, scientific analysis and conservation. During the excavation in 2017, it became evident that the sandy soil and low depth of the grave had destroyed any possibility of DNA and lipid analyses. In general, only a few organic remains were found during excavation, but as the soil blocks are still being investigated in the laboratory it appears that a lot of organic material was, in fact, preserved by metal salts. Sometimes even wood is preserved in areas without metal. Most of the preserved wood is oak and has been interpreted as the remains of the roof of the chamber, and maybe a wooden floor. Remnants of a post in the centre of the western wall further support the conclusion that the chamber was built of oak planks.

The soil from the bottom of the grave was systematically sampled for geochemical analysis, including both XRF and soil analysis. As there are no preserved bones from the deceased nor the possible horse or any other animal sacrifices, it is hoped that the geochemical analysis will reveal variations in the phosphate and calcium levels, thus proving the existence of, for example, a horse. Soil micromorphology samples were also taken from the bottom of the grave. Hopefully these will yield more information about the composition of the grave and the nature of a possible floor, and perhaps show remains of the deceased.

Fortunately, there are well-preserved phytoliths at the bottom of the grave. Already in 2015, phytoliths from what were presumably oats were found under the bridle. During the 2017 excavation more samples for phytolith analysis were taken, primarily to determine if oat was present elsewhere in the grave. As the conservators micro-excavate the soil blocks, samples are continuously taken for the identification of non-pollen palynomorphs, phytoliths, pollen, wood, leather and other organic material.

Finally, it is our hope that metal analyses as well as a comparison of the shape of the fittings with similar fittings from other equestrian graves could eventually determine whether the bridle was produced in Hedeby and the harness elsewhere. Both the excavation and the soil blocks have been 3D documented. 3D documentation of a grave like Fregerslev is of great value, for example when trying to comprehend the complexity of the harness. However, it is also very time consuming both for the conservators and the IT-department involved.

Looking back on the administrative treatment of the equestrian grave from Fregerslev, it is open for discussion whether the grave should have been excavated earlier on in the process. Doubtless, the Valetta Convention does have an important point in stressing preservation for the future. In this case, however, it was evident that the decomposition of the archaeological material could not be stopped, and therefore excavation was the only option. Hopefully, in the future, it will be possible to measure the state of decomposition much more precisely at a given site, thus ensuring that important archaeological remains that are to be protected *in situ*, are, in fact, protected and not just left to disappear.

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