

Reconstructing the Gerdrup Grave – the story of an unusual Viking Age double grave in context and in the light of new analysis

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ABSTRACT

In 1981, a double burial from the 9th century was excavated at Gerdrup, north of Roskilde. The grave contained remains of the bodies of a woman and a man. The woman was buried with a spear, whilst the man had apparently been killed before burial. This has been interpreted as a 'master and slave burial', which was placed at an isolated location, perhaps because the buried were regarded as pariahs. However, previously unpublished excavation data combined with new ¹⁴C analyses indicate that the burial was part of a small multi-period burial site, which was located near a group of earlier burial mounds. Topographic analyses show that the burial was also located on an important ford, and therefore had a prominent location. Significantly, new DNA analyses surprisingly indicate that the two buried individuals actually have a parent-offspring relationship: they are mother and son. The previous interpretation of the Gerdrup grave is thus challenged. This article will present the relevant excavation data and discuss this in the light of the new analyses.

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In 1981, the find of a Bronze Age sword was reported to Roskilde Museum (now ROMU). The sword came from a field a few kilometres to the north of Roskilde, in an area containing many burial mounds, some still standing as visible monuments in the landscape, whilst others had been more or less destroyed by ploughing and stone collection (Figure 1). The museum visited the location where the find had been recovered, and it was evident that the sword originated from a destroyed burial mound. Furthermore, a number of dark patches were observed in the newly ploughed field, which were thought to be cremation graves. A small trial excavation was carried out, which confirmed the existence of such graves as well as an inhumation grave. Two graves were examined in 1981 and the museum returned for a larger excavation campaign in 1983.

The Gerdrup investigations are mainly known for the discovery of a Viking Age double grave, which contained the remains of a female buried with a spear and accompanied by a male, who had presumably had his neck broken and his ankles tied. This grave was excavated in 1981, and the

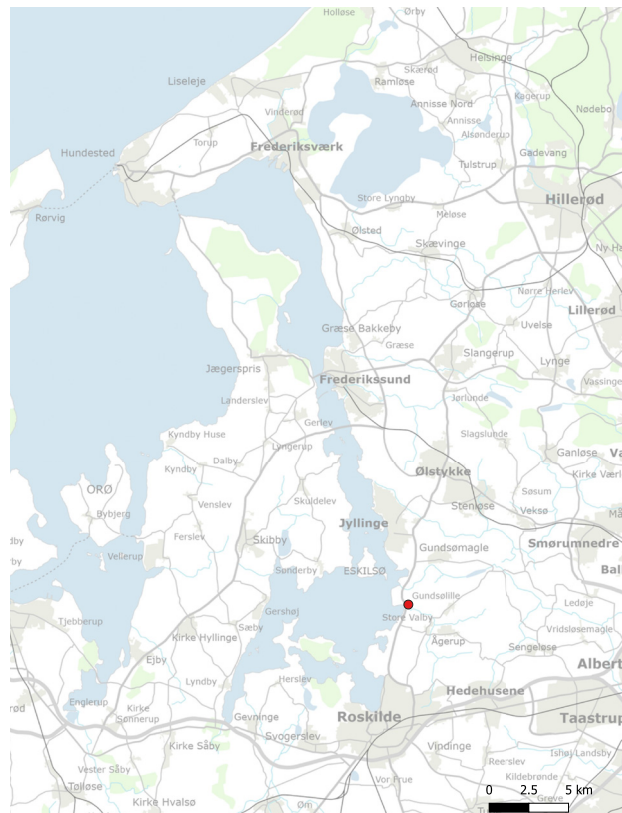


Figure 1. The location of Gerdrup in NE Zealand (Map: Ole Kastholm, ROMU, with background data from the Danish Geodata Agency).

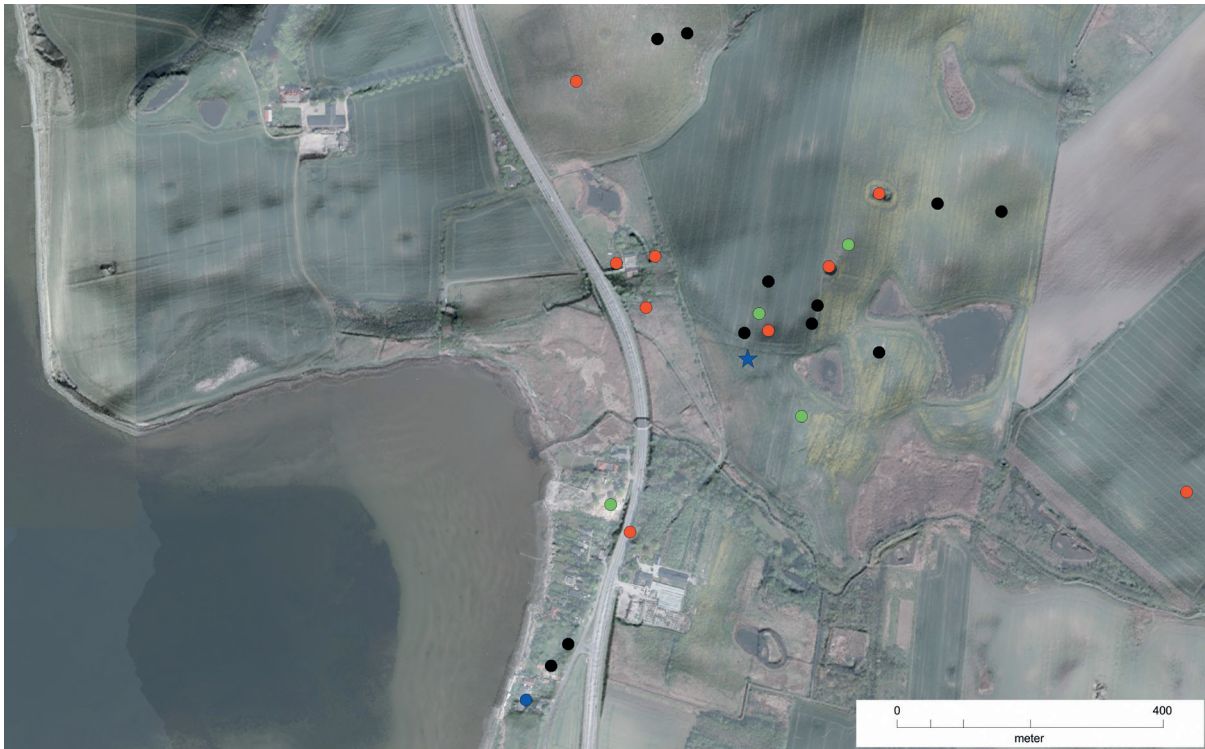


Figure 2. Burials in the landscape around the Gerdrup site, marked with a blue star. Red dot: Stone Age. Green dot: Bronze Age. Blue dot: Iron Age. Black dot: undated. Note the old crossing of the river valley just to the south of the Gerdrup site (Map: Ole Kastholm, ROMU, with background data from the Danish Geodata Agency).

preliminary results, which mainly focused on the gender ‘bias’ of the grave, were published shortly after in Danish (Christensen 1981; Christensen and Bennike 1983). Since then, the academic interest in the double grave has been significant (e.g. Gardela 2009, 288-290.; Jensen 2004, 345; Lauritsen and Kastholm Hansen 2003; Lindblom and Balsgaard Juul 2019, 53; Pedersen 2014, 240-241.; Peter 2015, 33; Price 2019, 337; Taylor 2005, 33-34.; Wilson 2008, 34), and a quick internet search for ‘Gerdrup burial’ also shows that this interest has also spread outside academia. Nevertheless, a full report on the Gerdrup investigations, including new ^{14}C results from the material, has only recently been published in Danish (Kastholm 2016a; 2016b), and the whole context of the double grave has not been accessible to a wider audience. Since then, DNA analysis have also been undertaken on the double grave (Margaryan et al. 2020), and the aim of this article is to describe the grave, its topographical and cultural context, as well as the most recent results, in English to a broader audience.

The landscape

The archaeological site of Gerdrup is located near the eastern coast of the long, shallow Roskilde Fjord, which stretches from the open sea, the Kattegat, in north, to the city of Roskilde in Central Zealand, *c.*45 km to the south (Figure 2). In the Atlantic period, a small fjord tributary cut into the landscape just to the south of the grave area, but in the Sub-Boreal and the Sub-Atlantic periods, this became a valley around the watercourse Maglemose Å. The double grave was located on a small peninsula in the wetlands of the valley, just *c.*4 m above sea level. Here it was dug into the fossilised Atlantic shoreline. The landscape rises up with sloping hills to the north.

Just SW of the grave area is where Maglemose Å was crossed in historical times via the bridge known as Gerebro, which there is documentary evidence for from as early as AD 1661. Although no signs of any prehistoric or medieval ford have been identified, this narrow point in the river valley is the natural place to cross for travellers going north or south along the fjord coastline.

The cultural landscape is dotted with remains of burial mounds, some of which still stand as



Figure 3. Cadastral map drawn 1798-99. The Gerdrup site is marked with a blue star. Note the many marked burial mounds on the higher ground to the north of the site flanking the valley (Map: Ole Kastholm, ROMU, with background data from the Danish Geodata Agency).

monuments. On the hills just north of the double grave, at least 15 mounds overlooked the valley, and the area is generally known for its numerous burial mounds (Figure 3). The antiquarian artist J. Magnus Petersen counted more than 400 monuments in the mid-19th century, when he walked the c.30 km along the fjord from Frederikssund southwards to Roskilde. Forty years later, he followed the same route and observed that less than 50 monuments were still standing, the rest having been lost as a result of increasingly industrialised agriculture (Petersen 1909, 24).

Regarding the dating of the burial mounds, these were erected in the Early Neolithic and Early Bronze Age. There are also several examples of secondary burials from later periods, which are either located close to the mounds or inside them.

Earlier excavations near the double grave

On two earlier occasions, burials were excavated, which were located close to the double grave. Around 100 m SSE of the double grave, a group of Late Bronze Age cremation graves were identified and excavated by Gustav Rosenberg for the National Museum in 1934.¹ In addition, in 1963 two graves from the Late Neolithic and two graves dating to the Early Bronze Age were excavated only around 50 m NE of the double grave. David Liversage, also from the National Museum, conducted these investigations.²

The excavations in 1981/1983 and related research

Excavations were undertaken by Roskilde Museum (now ROMU) in 1981 and 1983, which covered

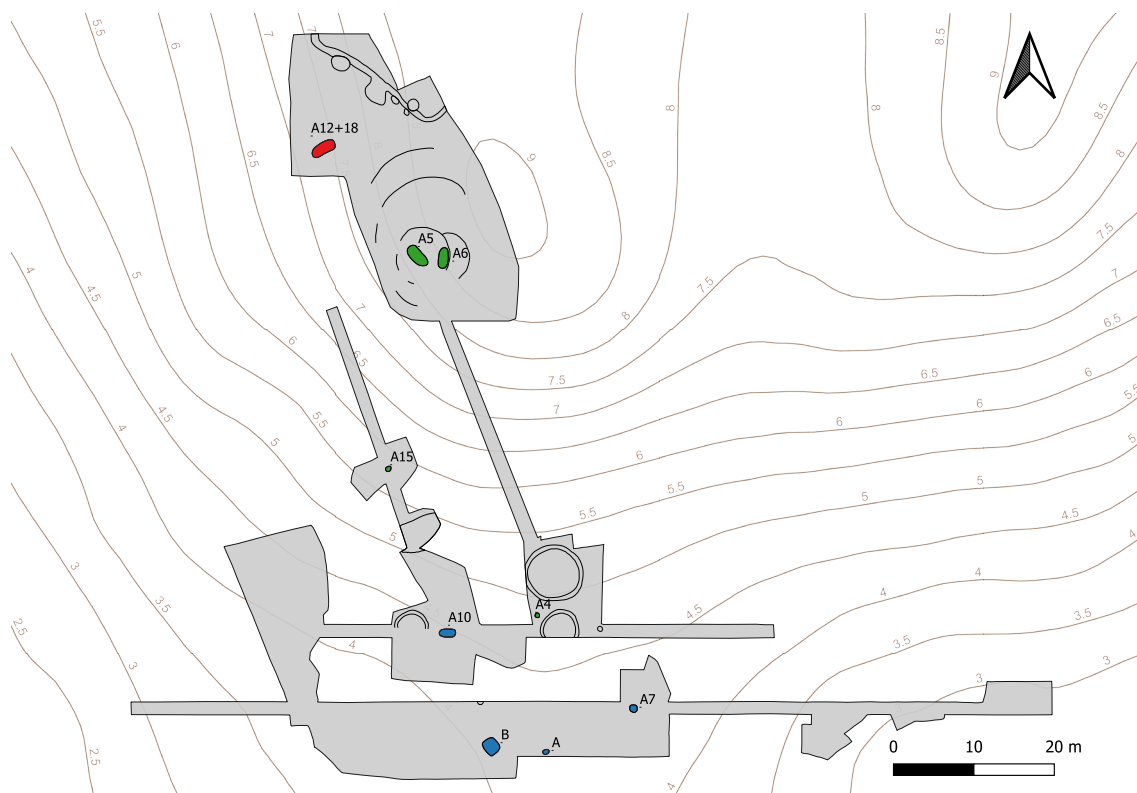


Figure 4. Plan of the excavated areas in 1981 and 1983. Blue: Iron Age features. Green: Bronze Age features. Red: Stone Age features (Plan: Ole Kastholm, ROMU).

a total area of $\approx 1800 \text{ m}^2$ (Figure 4).³ Five inhumation graves, three cremation burials and three ‘grave-like’ features were investigated. Dr Pia Bennike subsequently carried out osteological analyses on the bones from the inhumation burials, and Dr Niels Lynnerup, confirming and complementing Bennike’s results, re-examined the Viking Age double grave in 2015. During his work, DNA samples from the two individuals from Grave B were also collected (along with two additional samples from the then undated Graves A10 and A12), which

were included in a larger Viking Age genomic study (Margaryan et al. 2020). The DNA was rather poorly preserved, but, as will be explained in more detail below, it confirmed the osteological identification of sex and established the relationship between the two individuals. Furthermore, ^{14}C analyses on human bone from three previously undated graves were carried out in 2015.

The graves

In 1981, two graves, A and B, were excavated. Grave A was a cremation burial, containing only cremated human bones and charcoal in a small pit that was mostly situated in the topsoil. AMS analysis of a bone fragment dates the grave to the Viking Age, more specifically to AD 885-990 (BP 1108 ± 25 , AAR-23141, cal. with 2σ).

Grave B is the Viking Age double grave (Figures 5-6), which will be examined in the following. The grave pit was a black-coloured feature, measuring $2.5 \times 1.6 \text{ m}$ on the surface of the subsoil, which was N-S orientated, like most of the grave pits in the region (see Ulriksen 2011, 182, fig. 20). It was



Figure 5. Grave B *in situ*, seen from S (Photo: Tom Christensen, ROMU).

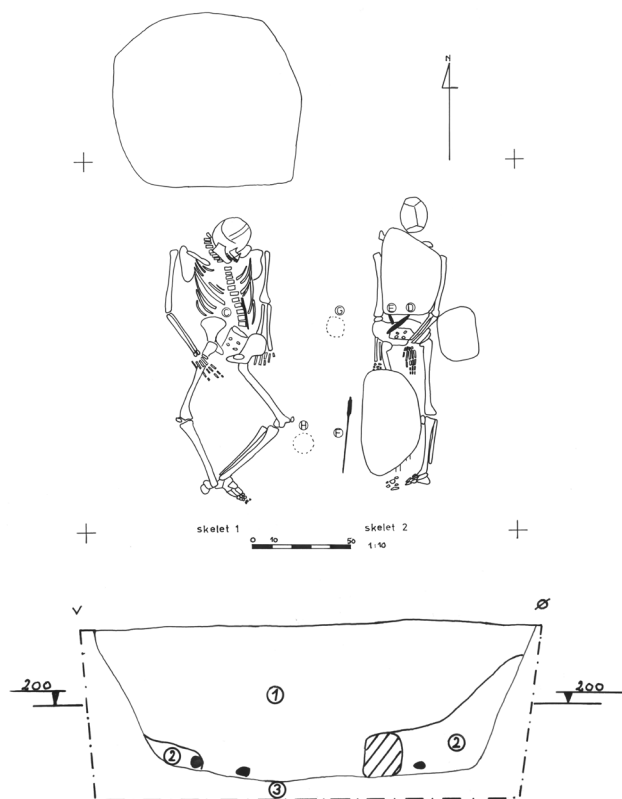


Figure 6. Grave B, plan and section (Drawing: Mette Høj, ROMU).

0.8 m deep, with sloping sides and an almost flat bottom. In the NW corner of the pit was a large, naturally deposited stone. The grave fill consisted of turfs, which had probably had been dug up in the nearby surroundings; the turfs could be clearly observed in the cross section of the grave, and must have covered an area of *c.*50 m² (Figure 7). They had been placed so that the surface covered with vegetation was facing downwards, as is normally the case in turf-built burial mounds. It is obvious from the section of the grave that it was filled in one operation and had not been re-opened. The grave pit contained two skeletons, skeleton 1 on the west side and skeleton 2 on the east side. Between the two skeletons were two small deposits of cranial bone fragments from sheep/goat. No traces of coffins were observed. Both the deceased lay with their heads towards the north. Skeleton 1 was the remains of a 35-40 year old male, who was lying on his back, with his head about 20 cm away from the large stone in the NW corner. His legs were in an angular position, with the right leg crossing over the left (Figure 8A). This gives the impression that his legs had been tied together by



Figure 7. Grave B, photo of section seen from S, showing turfs (Photo: Tom Christensen, ROMU).



Figure 8A-B. Details of skeleton 1 (the male). A) Left: the ankles. B) Right: the neck (Photos: Tom Christensen, ROMU).

the ankles, although there were no preserved traces of rope or other binding material. His left arm lay by his side, whilst his right hand was resting on the

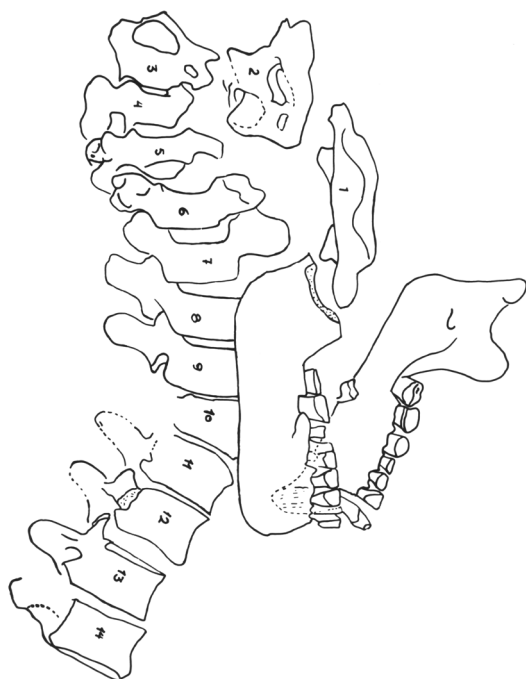


Figure 9. Details of the neck of skeleton 1 (the male) (Drawing: Mette Høj, ROMU).

groin. His head was angled down towards the left shoulder and his neck had apparently been broken (Figures 8B-9). This had not left behind any preserved evidence on the bones, but the cervical vertebrae lay separately, in a way that suggested they had been pulled apart by hanging (Bennike 1985, 116-117). The deceased had a worn iron knife with him. Skeleton 2 was the remains of a

middle-aged female, who lay on her back, with her left arm at her side and right hand resting close to the groin. At the time of death, she had been partially toothless for several years, and must have had the appearance of an old woman with a receding mouth. In addition, her pelvis showed signs that she had given birth at least once. At her waist was an iron knife and a bone needle box, which contained iron needles. Alongside her right leg was a 37 cm-long iron spearhead, the tip of which pointed towards the foot end of the grave (Figure 10). Its socket contained remains of a wooden shaft. The spearhead is of Jan Petersen's type E, a type that is usually dated to the 9th century, but was apparently used until the beginning of the 10th century (see Solberg 1984, 66). This is a classic type, although it is not very common amongst the Danish burial finds (Pedersen 2014, 93, 95). A noteworthy characteristic associated with skeleton 2 was that two large stones had been placed on top of the woman's body: one stone weighing *c.*40 kg on her chest and another weighing *c.*75 kg above her legs. A third stone weighing *c.*20 kg was lying next to her waist, as if it had been placed on her body to start with, but had accidentally fallen to one side, either during or after the burial. There was no fill between the stones and the skeleton, so they must have been placed directly on top of the deceased.

When the museum returned two years later, in 1983, for a slightly larger investigation, this was

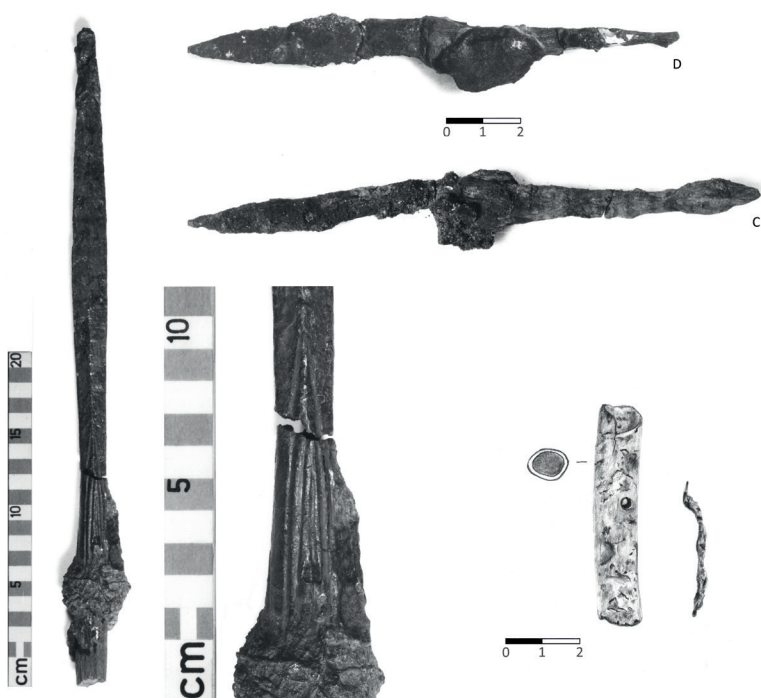


Figure 10. The contents of grave B. Left: the spearhead with detail of the socket. Top right: the knives of the deceased. Bottom right: the needle box (Photos: Flemming G. Rasmussen, ROMU. Drawing: Hanne Jøksens, ROMU).

to clarify whether the double grave was part of a more extensive Viking Age burial site. Against expectations, however, there were few remains in the immediate vicinity of the grave. A few metres away, the archaeologists did find a small pit (A7), containing two deposited pottery vessels from the 9th century AD (Figure 11). In addition, a single inhumation grave (A10) was found *c.* 14 m NNW of the double grave, which contained the well-preserved skeleton of a young female, who was only *c.* 150 cm tall, lying on her back, with her head at the west end and arms by her side. There were no preserved grave goods, and the grave therefore remained undated. Recent ¹⁴C analysis, however, indicates that the woman lived during the 5th century AD (BP 1627 ± 25, AAR-23142, cal. with 2σ). To the north, in the more elevated area, there were several burials dating to the Bronze Age and Late Neolithic. Two inhumation graves are primary graves from a long-gone burial mound from the Bronze Age, of Montelius per. II (A5 and A6), and an urn burial and a cremation burial were dated to the Late Bronze Age (respectively A4 and A15). The dating of the Bronze Age burials is based on the artefacts that were recovered. Just west of the edge of the burial mound, another double inhumation grave, orientated WSW-ENE, was investigated. It contained an adult male and a child of 2-3 years of age (respectively A12 and A18). The man lay on his back, with his head in the west and his left arm across his chest. The child was lying between the legs of the man. The only artefact in the grave was a small bone point, which lacked any datable characteristics. A ¹⁴C date indicates that the man lived in 1970-1870 BC (BP 3563 ± 25, AAR-23143, cal. with 2σ).

In the area to the north of the double grave, three ring-shaped ditches were recorded. These had been dug 10-30 cm down into the subsoil. According to the excavation report, they were of such a modest depth in some places that several other circular ditches could have existed, but these may have disappeared when the topsoil was removed. Their diameter varied between 4 and 7 m, and they did not contain any finds. Little can be said for definite about the ditches, but they could indeed be remains of burials – such as cremation or urn burials – that have been destroyed by ploughing. Ring-shaped ditches are known from the exten-



Figure 11. One of the two 9th century pottery vessels deposited near grave B (Photo: Flemming G. Rasmussen, ROMU).

sive Pre-Roman Iron Age burial grounds, such as Årre and Årupgård in Jutland (Jensen 2003, 56-63), but they are also found in various forms at the burial places from the Late Germanic Iron Age and Viking Age (Ameziane 2004; Feveile and Jensen 2006, 68-69; Jørgensen and Nørgård Jørgensen 1997, 39, 60; Kleiminger 1993, 95-98; Ramskou 1976, 198-19).

During the two excavation campaigns, a total area of *c.* 1800 m² was examined. The museum did not subsequently return, as a convincing concentration of Viking Age graves was not encountered, which could be compared with other, well-known burial grounds from the period. In more recent years, the site has once again attracted attention as a result of metal detecting undertaken by volunteers, who have recovered numerous artefacts. Most of these, however, are apparently fragments from richly-furnished, but long-since destroyed, Bronze Age burials.

To summarise, two Viking Age graves were found: a double grave and a cremation grave. These were placed near one another, in the low-lying part of the area, accompanied by a Viking Age deposit of pottery vessels. In the same area, a solitary inhumation grave from the Early Germanic Iron Age and three ring-shaped ditches of a broadly Iron Age date have been recorded. In the higher up area, two burials from Late Bronze Age were discovered, and near the hilltop, two Early Bronze Age burials and a Late Neolithic double grave. These constitute at least 11 graves, covering a time span of two millennia (Table 1).

Feature no.	Type	Sex	Dating	Dating type	Exc. Year
A	Cremated bones in pit	-	885-990 AD	¹⁴ C	1981
B	Double inhumation grave	M/F	9th cent. AD	Contextual	1981
A10	Inhumation grave	F	5th cent. AD	¹⁴ C	1983
A4	Cremation grave with urn	-	1100-500 BC	Contextual	1983
A15	Cremated bones in pit	-	1100-900 BC	Contextual	1983
A5	Inhumation grave	F	1500-1300 BC	Contextual	1983
A6	Inhumation grave	-	1500-1300 BC	Contextual	1983
A12+A18	Double inhumation grave	M/-	1915-1755 BC	¹⁴ C (A12)	1983
-	Ring-shaped ditch	-	Iron Age	Contextual	1983
-	Ring-shaped ditch	-	Iron Age	Contextual	1983
-	Ring-shaped ditch	-	Iron Age	Contextual	1983

Table 1. Overview of the graves and ‘grave-like’ features from the Gerdrup burial site.

The DNA analyses

In 2015, individuals from the Gerdrup graves were included in a large study of Viking Age genomics. Besides being a part of the large amount of data that was required for the study, it was hoped that, using biological methods, this would determine the sex of the individuals. The two individuals from the double inhumation, grave B (sk1 and sk2), were analysed as part of the study (Margaryan et al. 2020), corresponding to respectively samples VK215 and VK216 from the study. Two additional samples from graves A10 and A12 were also analysed for comparison, respectively VK213 and VK214. It was not until later on that the two latter graves proved not to be from the Viking Age, as mentioned above. We sampled one tooth root per individual for DNA analysis and conducted all the ancient DNA (aDNA) laboratory work in the dedicated aDNA facilities at the Lundbeck Foundation GeoGenetics Centre, according to strict aDNA guidelines. The

details of laboratory and bioinformatics analyses can be found elsewhere (Margaryan et al. 2020).

A total of 33,693,310 (grave B, sk1) and 27,449,365 (grave B, sk2) DNA sequences were generated for the two individuals (Table 2). With the endogenous DNA fraction of 13.4% and 10.4%, this resulted in c. 0.067 and 0.031 X depth of coverage (DoC) for respectively sk1 and sk2. The genomic data confirmed the sexes of both individuals: grave B sk1 was male and grave B sk2 was female. Due to the low coverage of the genomes, these two samples were not thoroughly analysed in the original genomic study.

The analyses of sequenced DNA molecules showed typical ancient DNA damage profiles and short average DNA fragment length, which along with low contamination levels (<3.5%), suggested that most of extracted DNA is authentic and of ancient origin.

Y-chromosome analysis indicated that the male individual, grave B sk1, belonged to the R1b1a1b

Sample	DoC	Sex	Cont (%)	Damage (%)	Y haplogroup	mtDNA haplogroup	mt-DNA DoC	Total	Endo (%)
GraveB;									
sk 1	0.067	Male	3.47	12.12	R1b1a1b	J1c2k	30.8	33,693,310	13.44
GraveB;									
sk 2	0.031	Female	0.1	19.32	N/A	J1c2k	25	27,449,365	10.35

Table 2: Genetic results of the two individuals from Grave B.

DoC: Depth of coverage; **Cont:** contamination levels according to mtDNA analyses; **Damage:** C → T transition rates at the first position of the 5' end of DNA reads; **Total:** total number of sequenced DNA reads; **Endo:** the fraction of human endogenous DNA in the library.

male lineage, which is a common Y-chromosomal haplogroup in both present-day and Viking Age Europe (Margaryan et al. 2020; Balaesque et al. 2009).

Interestingly, the mtDNA lineages of both individuals belonged to the same J1c2k haplogroup. The more ancestral J1c lineage of this haplogroup is mainly found in continental Europe, where it accounts for *c.*80% of total J1 lineages (Pala et al. 2012). J1 haplogroup, however, is only present in *c.*7.7% of the present-day Danish population (Bybjerg-Grauholm et al. 2018).

Moreover, the mtDNA sequences of the two individuals were identical, indicating their possible close genetic relationship through the maternal line. To further indicate their possible kinship based on genome-wide data, we used NgsRelate and estimated genotype likelihoods for the autosomal transversion sites where 1000 Genomes CEU population has a minor allele frequency of 0.05. In addition, we used the minor and major alleles from this CEU population as input to ANGSD (-doMajorMinor 3). Even though the analysis was based on small number ($n=8736$) of informative sites (due to the low coverage of both genomes), it clearly indicated a parent-offspring relationship between the two individuals. The estimated relatedness coefficients were $k_0=0.0431$, $k_1=0.9561$, and $k_2=0.0008$, which indicate the fractions of the genome where the pair of individuals share respectively 0, 1, and 2 alleles identical by descent.

As mitochondrial DNA is maternally inherited, the identical sequences suggest that the female (sk2) was the mother of the male (sk1). It should be mentioned that we cannot completely rule out the unlikely opposite scenario, in which the male (sk1) was the father of the female (sk2). This would involve the small probability that the male (sk1) and the unknown mother of the female (sk2) were distant maternal relatives, in order to explain the identical mtDNA sequences in the case of father-daughter relationship. The father-daughter scenario is, however, contradicted by the osteological evidence, which indicates that the female is the older of these two individuals who were simultaneously interred.

Initial ideas about Grave B at Gerdrup

As soon as the grave was discovered, it aroused a great deal of interest. It was a grave that deviated from the classic perception of the graves of the Viking Age, especially due to the woman's mixture of gender-specific grave goods: a needle box and spearhead. This 'anomaly' was emphasised by the presence of the man who had apparently been killed in the grave, as well as by the large stones that had been placed on top of the woman's body. Based on these indicators, the excavator of the grave, Tom Christensen, cautiously suggested that the grave might have been the resting place of a sorceress or valkyrja: a woman buried with a special status symbol – the spear – and a special grave item – the killed man – and it was clearly intended that the deceased woman should remain in the grave, so the stones were placed in it. The supposedly isolated location of the grave is also mentioned, and reference is made to medieval written sources, which describe how sorceresses were stoned to death and/or buried at the beach. This idea was presented in a preliminary article in 1982 (Christensen 1982, 26-28), which obviously did not include the results of the 1983 campaign.

The interpretation of Grave B at Gerdrup as the grave of a sorceress has been extensively developed by Leszek Gardęła (e.g. Gardęła 2009, 288-290). Gardęła proposes that the spear should perhaps be interpreted as a 'völva staff', a finds category developed by Neil Price, comprising peculiar, sceptre-like objects that are known from a number of Viking Age graves (see Price 2002, 181-203; Gardęła 2016). It should, however, be noted that Price does not accept Gardęła's interpretation of the Gerdrup spear as a staff (Price 2019, 337). The large stones are regarded by Gardęła as another indicator that the deceased was a sorceress, and develops Christensen's suggestion about the large stones, speculating that they may have been thrown down on top of the woman, crushing her body, in an apotropaic stoning ritual (Gardęła 2009, 289-290; 2011, 343-344). Gardęła compares the scenario with a passage from *the Eyrbyggja saga* (chapter 20), which tells of the sorceress Katla and her son Odd, who are executed after a misdeed. The man is hung and the woman is stoned to death in a desolate place (see Gardęła 2009, 289).

Another point made by Gardela is that the two bodies seem to ‘mirror’ one another: the female has the right arm along her side, whilst her left arm rests over the groin area; the male has his left arm along his side and right arm over the groin area. In this way, they seem to be covering their genitals (Gardela 2009, 289). Gardela proposes that this peculiar placement of the bodies and positioning of their limbs could have had specific meaning, and asks ‘Perhaps it was intended to demonstrate that the two had something in common or it related to some notion of shame or shyness?’ (Gardela 2011, 342).

A different idea, which departs from the sorceress and slave theme, is proposed by David Wilson. He suggests that the male had raped the female, and had been executed for this crime, and buried along with his victim (Wilson 2008, 34).

Reconstructing Gerdrup grave B

In the following, we will take a closer look at each component of Gerdrup grave B, not to arrive at a definite suggestion of what the grave ‘was’, but to present and discuss the full context of this find, in order to provide the most solid base for future suggestions and discussion.

Topography

To begin with, it is important to emphasise that the grave is not situated on a contemporary beach or shoreline. The site was part of the shoreline in the Mesolithic, but in the Iron Age, the landscape was almost the same as it is today. It can be stated that the location is ‘coastal’, but that applies to all the landscape surrounding Roskilde Fjord. Furthermore, the grave is not particularly isolated, although this point was also made in the preliminary publication (Christensen 1982). The excavation results from both campaigns, together with the new ^{14}C analyses, show that the grave is associated with at least one other Viking Age grave, as well as a contemporary deposit containing two ceramic vessels. In addition, the ring ditches at the site could also be remains of now-disappeared contemporary burials. Further-

more, several graves from earlier periods have been recorded in the surrounding area. Such a return to old burial monuments is a well-known phenomenon, especially in the Late Iron Age. This phenomenon is known in the vicinity of the Gerdrup area, for example, at the Viking Age burial sites of Trekroner-Grydehøj and Kirke Hyllinge Kirkebakke (Ulriksen 2011, 164-181), as well as Tølleosegård (Sørensen 2011, 248), all of which are situated close to much older burial mounds. As Julie Lund and Elisabeth Arwill-Nordbladh stated ‘Archaeological material indicates that the Viking Age was one of the periods in the Scandinavian history in which the past was most actively used and reworked in material terms.’ (Lund and Arwill-Nordbladh 2016, 415). Although the Gerdrup burial site does not seem to contain that many graves, its location appears to follow a local pattern. We might describe this place as a long-term cemetery, a place where there were strong connections between burial monuments from different periods of the prehistory.

Moreover, it can be suggested that the Gerdrup graves are in fact quite centrally located. As mentioned above, the burial place is located very near the old crossing of the Maglemose Å valley, Gjerebro. Due to the topography, this place is the natural transit point in the valley when following the route parallel to the Fjord’s coastline. This was true in the Viking Age, as well as in earlier ages as far back as the Mesolithic. As Lund has pointed out, crossings – fords and bridges – often constituted a midpoint of certain Viking Age activities, such the depositions of weapons and other presti-



Figure 12. During the excavation, grave B was flooded daily with groundwater (Photo: Tom Christensen, ROMU).

gious artefacts in wetlands, or the erection of rune stones (Lund 2005, 109-118). Although no deposits are known from this part of Maglemose Å watercourse, it seems reasonable to assume that the site of the Gerdrup grave was in the Viking Age thought of as a central place near a crossing, alongside a route and rooted in a landscape of ancient burial monuments.

An interesting aspect is the placement of the grave in the low and wet areas of the valley of the watercourse. Throughout the excavation, the grave pit became flooded with water from the natural subsoil, and had to be emptied every morning (Figure 12). As the excavation took place in the late autumn, we cannot rule out that such flooding is only seasonal, but it is possible that the grave was deliberately intended to become flooded as a part of the burial.

The mixed grave goods

If we turn to the ‘mixed’ grave goods of the Gerdrup woman – the needle box and spearhead – these may be noteworthy finds, but they are far from outstanding. The classic artefact-based determination of sex, in which weapons are regarded as being associated with men, whilst needle boxes and domed oblong brooches are associated with women, ought to be regarded as a partial truth; a projection of the 19th century bourgeois gender perception into the world of the past (see e.g. Arwill-Nordbladh 2001, 17-19; Lindblom and Balsgaard Juul 2019, 43-48). Although no overview of this exists, we know of several graves from the Iron Age in Scandinavia and adjacent areas in which women are buried with ‘classic’ men’s equipment and men are buried with ‘women’s equipment’, or where there is a mixture of men’s and women’s equipment (Lauritsen and Kastholm Hansen 2003; Lindblom and Balsgaard Juul 2019, 53-56; Moen 2019, 116-128). A well-known example is grave BB from the burial site of Bogøvej, on the island of Langeland, where a young woman is buried with a battle axe (Grøn et al. 1994, 34-34; Pedersen 2014, 88, Cat. 139). Grave Bj 581 from Birka has also recently been discussed, after mtDNA analyses confirmed earlier osteological classification and demonstrated

that the deceased in this exclusive grave containing a full set of weapons and riding equipment is a biological female and not a male. The individual had previously been regarded male solely on the basis of the grave goods (Hedenstierna-Jonson et al. 2017; Price et al. 2019). Jan Petersen’s classic work ‘Vikingetidens Smykker’ may provide another example. It includes at least 18 graves in which there is a combination of domed oblong brooches and weapons (Petersen 1928, 32, 42-43, 50, 66). Although these may, in some cases, be mixed or disturbed graves, the number is so high that the phenomenon should be considered real. In more recent years, Gardęła has been mapping several of these graves, especially female weapon graves (Gardęła 2013b; Gardęła 2021).

But we could ask another question: is the spear really part of female grave goods? Just as today we regard artefact-based sex determination as an inadequate method, we might also question the rather simplistic view that the artefacts in a burial are the belongings of the deceased. In his 2010 study ‘Passing into Poetry’, Neil Price suggested that we should move away from regarding the burial as just ‘assemblages of things’ representing contemporary material culture, but instead interpret the artefacts in the burial as representing behaviour surrounding the funeral (Price 2010, 131). In his study, Price proposes a model for understanding Viking Age burials, which basically interprets the burials as scenes of theatrical-type performances based on mythological narratives: ‘Each burial is a conscious act, its objects and animals selected with care, and deposited with concern.’ (Price 2010, 147-148). Price’s model offers a highly inspiring and ground-breaking view of the complexity and variety of the ‘deviant’ graves in the Viking Age.

Is the Gerdrup spear then a theatrical prop as opposed to an actual possession of the female deceased? This might be the case. Price (2002; 2019) has analysed Bj 834, a double inhumation chamber grave at Birka. This richly furnished grave contains a female and a male sitting ‘in layers’ on a chair, surrounded by grave goods: a sword, shield, iron staff, bow and arrows, two horses, a bucket, chest and other items (Price 2019, 88-95). One item was a spearhead that was embedded in the grave chamber in a peculiar way, which Price has

convincingly interpreted as the remains of a spear that was thrown into the chamber, its trajectory crossing over the deceased in the chair, perhaps as a last act before the grave was closed and a dedicated to the god Odin (Price 2019, 95).

We cannot conclude that this was also the case at Gerdrup. The spearhead was found at the foot end of the grave, pointing south, with no specific evidence, such as its angle, of it having been thrown or thrust into the bottom of the grave pit. It should be noted, however, that the position of the spearhead only leaves *c.* 1.2 m for the shaft. As this seems too short for the shaft of such a spearhead, it must have been either broken into pieces or sticking up from the grave towards the north. This idea is of course speculative, but the spear throwing scenario is nevertheless an interpretation that introduces new views about this grave and its inventory.

The stones

In the case of the large stones that were placed on top of the buried woman, it is widely believed that this was to stop the deceased from haunting the living (see Aspöck 2008, 21). This is also the most common reaction from the museum audience when they encounter the grave in the exhibition at Roskilde. As already mentioned, Leszek Gardęła has proposed that the stones might represent an apotropaic stoning of the deceased that took place during the burial rituals (Gardęła 2011,

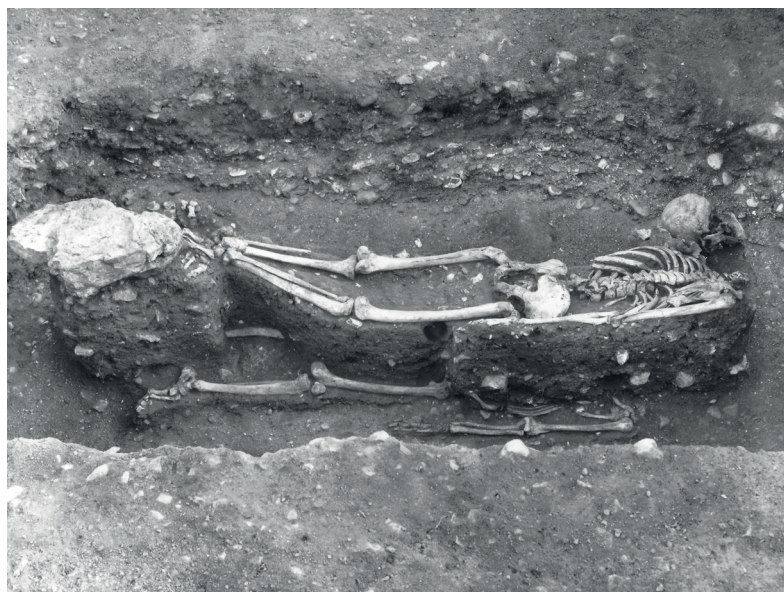
344). When the grave was excavated, the skeleton appeared to be crushed by the weight of the stones, but due to the fragile condition of the bones it is not easy to say whether this ‘crushing’ was a direct result of the stones being thrown onto the dead body or natural decay over the centuries. But if a ‘stoning’ actually took place, it would have been a very dramatic and explicit experience, both aurally and visually, for those who were present.

Whatever the reason for the presence of the stones was, stones in graves are certainly not a unique phenomenon in Viking Age Denmark, unlike, for example, Anglo-Saxon pre-Christian burials (see Reynolds 2009, 81-85). Several Viking Age graves are furnished with stones of various sizes. These can be present in the grave fill as well as the coffin – if this is present in the grave – or placed directly on top of the deceased (Ulriksen 2011, 194-197 with ref.) (Figure 13). Anja Borch-Nielsen has examined the phenomenon in 984 Viking Age burials from modern Denmark and concludes that there are stones in 24.5 % of these (Borch-Nielsen 2016, 14). It is most common in the eastern part of Denmark: on Zealand up to 37 % of the examined graves are furnished with stones (Borch-Nielsen 2016, Fig. 2). Borch-Nielsen states that the most common feature is stones in the top of the grave fill, whilst larger stones placed directly onto the deceased are rarer (Borch-Nielsen 2016, 14, Fig. 3). Targeted investigation has not yet identified systematic correlations between the presence of the stones and



Figure 13. Section of the stone-filled grave A608 from the burial place at Kirke Hyllinge Kirkebakke (Photo: Jens Ulriksen, ROMU).

Figure 14. Grave 55 from the burial place at Lejre. Two male individuals were buried 'in layers' in the same grave pit. The upper individual was decapitated (Photo: Harald Andersen, the National Museum).



the other characteristics of the burials concerned, such as the number of interred individuals, grave goods, sex, age and the grave pit's orientation (Borch-Nielsen 2016, 16; Ulriksen 2011, 195). Given their variation in size, number and placement, the stones were probably not put in the graves for only one reason, but they must have been put there deliberately, and placed for an obvious reason in each specific case. Borch-Nielsen speculates whether the stones might have marked social status (Borch-Nielsen 2016, 16f.), whilst Gardęła proposes that they may have been a sign that the interred was an 'agent of magic', in the cases where large stones have been placed directly onto the body (Gardęła 2011).

While these possible reasons remain speculative, we must at least assume that the stones mark differences between people, both in general and, in this specific case, between the two individuals of the Gerdrup grave.

The 'other' person in the burial

Knöchel-Christensen lists 88 multiple burials, i.e. graves containing two or more individuals, in Denmark (Knöchel Christensen 2013, 51). A closer examination of the existing archaeological source material will certainly reveal more, and if the rest of Scandinavia is included, the number will of course increase significantly. Several people in the same grave is thus not uncommon in the Viking Age. However, it is not always easy to deci-

pher the underlying reason for this (see Reynolds 2009, 65-67, for an Anglo-Saxon view). In some cases, the deceased have obviously been buried at the same time, as at Gerdrup. In other examples, a grave has been used several times, as in complex graves, such as A505 at the nearby burial site at Trekroner-Grydehøj (Ulriksen 2011, 174-179, 216-218; Ulriksen 2018) and Ka. 294-7 in Kaupang, Southern Norway (Price 2010, 126-130). Jens Ulriksen distinguishes between 'real' multiple burials, where the deceased are buried at the same time, and burials with subsequent burials, which were re-opened for later, additional burials (Ulriksen 2011, 186).

When several people are buried at the same time, this leads us to ask did they die naturally at the same time, or was one or more killed to be buried? In some cases, it is apparently obvious, as in the so-called master and slave burials containing decapitated 'slaves'. Archetypal examples of this are known from grave 55 at Lejre, just c.15 km from Gerdrup (Figure 14) (Wulff Andersen 1995, 14, 97-98) and grave FII from the Stengade II cemetery on Langeland (Skaarup 1976, 56-58; Skaarup 1989), as well as two double graves and a triple grave from Flakstad, Lofoten, in Northern Norway (Naumann et al. 2014). The so-called 'Elk man's grave' at Birka is also worthy of mention. This grave contained two male individuals, one equipped with a shield, spear and arrows, and with an elk antler placed near his head, and the other without grave goods and with his head separated from his body (Olausson 1990).

The ‘killed’ in the graves are therefore an element that can be encountered from time to time in the burials of the Viking Age, although killing as such can be difficult to prove. The taking apart of the body of the deceased, such as by decapitation, may well take place post-mortem and might also have been an action directed against the ‘main’ person in the grave, as part of the burial ritual, or perhaps was associated with later deliberate or accidental disturbance of the interred body (see also Ulriksen 2011, 186-188 with further references). Although it is not uncommon to find several individuals in the same grave, the underlying reasons for this are not obvious and cannot be regarded as monocausal. In the case of the Gerdrup grave, this clearly is a ‘real’ double grave with two simultaneously interred individuals. Furthermore, it seems to fit in well with the pattern of a primary interred and secondary individual, a main person followed by a ‘sacrifice’, as in the above-mentioned cases at Lejre, Birka, Stengade and Flakstad.

The parent-offspring relationship

In a recent Viking genomics study (Margaryan et al. 2020), other family relationships were revealed. Two people, buried in England and Denmark, turned out to be related, and a group of five individuals from the Estonian Salme boat grave consisted of four brothers and one third-degree relative (Margaryan et al. 2020, 393). There will most certainly be more discoveries like these in future studies. However, as far as we know, the mother and son relationship in the Gerdrup grave is so far unique in a Viking Age context. It contrasts with the results in the aforementioned Flakstad study. In this case, the relationship between individuals in double graves was examined by means of mitochondrial DNA and stable isotope analysis. Ten individuals were examined: three from single graves, four from two double graves and the remaining three from a triple grave. The double/triple graves only contained one body with a skull, whilst the other bodies were headless, and it is therefore suggested that these graves should be interpreted as master and slave burials (Naumann et al. 2014, 534, 539). The source material is somewhat limited, but does have interesting characteristics.

Firstly, the DNA analysis proved that the ‘masters’ and ‘slaves’ were not maternally related. Secondly, the isotope analysis showed dietary differences between the two groups in the multiple graves. The ‘headless’ people, interestingly enough, shared the same isotopic values as the individuals buried in the single graves, which could indicate that these two groups belonged to the same strata in society, whilst the ‘masters’ belonged to another (Naumann et al. 2014, 535-537).

The biological relationship in the Gerdrup grave may be unique, but the aspect that the son has apparently been killed is even more exceptional. As discussed above, the position of the male body leads to the conclusion that he was killed. But could this conclusion be wrong? The answer is yes. It could theoretically be wrong, because the evidence is not direct, but only circumstantial. There are no obvious marks on the cervical vertebrae, and both the head/neck and ankles could theoretically have been placed in this way deliberately or else accidentally moved into this position. The latter should especially be viewed in the light of recent forensic research, which has shown that post-mortem movement of human bodies can be extensive, especially in the early part of the decay (Wilson et al. 2019; 2020), an aspect that should be generally taken into account in future burial research.

However, despite such objections, the male in the grave still gives a clear impression of having been hanged and tied up. And given the fact that both people were buried in the same grave and at the same time, it seems reasonable to assume that this impression is correct.

We then have to explain the mother and son relationship. Given the mother’s age and condition, it seems plausible that she died of natural causes, and her son was most likely killed to accompany her in the grave. We can only speculate about the reasons behind this unusual funeral scenario. But it is important not to interpret such a scenario from our own contemporary perspective. In spite of the biological parent-offspring relationship, the cultural relationship between the two individuals might have been different, in which they did not constitute (part of a) nuclear family in the modern sense. The biological relationship could have been irrelevant. Perhaps the male was not a part of the family anymore, or maybe he was actually

family, but was not capable of carrying on without his mother, as he was disabled in some way, or he stood under her protection in a way, which meant he had to die when she died, and was therefore killed. Another interpretation is that he was willing to let himself be sacrificed, like the female slave in the chieftain's burial on the Volga River, famously described by Ibn Fadlan (see e.g. Price 2010, 131-137 with references).

A deviant burial?

Based on the grave's peculiar characteristics and the suggestion that the Gerdrup woman was a sorcerer or a 'witch', it has been proposed that the grave should be categorised as a so-called 'deviant burial' (Taylor 2005, 33-34). Basically, the concept of deviant burials encompasses burials that differ from the norm characterising contemporary burials (see Aspöck 2008; Murphy (ed.) 2008; Reynolds 2009, 35-36; Gardęła 2013a, 108-110 with further references). 'Deviant burials' is a term that can be meaningfully used for graves from Christian times, where a normal burial was supposed to be placed in consecrated ground, and an individual could therefore be buried outside the churchyard. The reason for this might be that he or she had committed particular offences and was therefore executed. Such a burial could, for example, have taken place at the execution site (e.g. Hansson 2012). This phenomenon of denying a person burial in consecrated ground is an integral part of several medieval laws in Scandinavia and may have had its origins in pre-Christian times (Riisøy 2015). However, it has been questioned whether 'deviant burials' is a useful term when it comes to the pre-Christian source material. Firstly, the understanding of the concept itself differs considerably within different research traditions. Secondly, using the concept requires a clear definition of what is 'normal' and what is 'deviant' among the burials in question and the society they represent (Aspöck 2008, 29-30; Gardęła 2013a). The challenges of using the concept of deviant burials when working with a pre-Christian source material becomes clear, if we look at the burial site itself: the Christian graveyard cannot easily be transferred, for example, to the burial sites of the Viking Age. Firstly, the total extent of a prehistoric burial site is rare-

ly known, and what is excavated as a solitary burial may well represent a part of an unknown site with numerous graves. Secondly, our knowledge of the physical and cognitive delimitation between prehistoric burial sites and their surrounding landscape and society is generally ambiguous. Without insight into the burial site's own landscape, it seems speculative to think in terms of 'inside' and 'outside', and as we have seen, the Gerdrup grave changed from being a solitary burial to a topographically rooted grave within a significant context.

Andrew Reynolds has, on the other hand, identified specific contextual categories that indicate deviancy in burials in an Anglo-Saxon pre-Christian context, such as crouched and cramped burials, multiple burials, prone burials, burials with stones and burials containing individuals with decapitations or other amputations (Reynolds 2009, 62-87). Furthermore, he investigated the topographies of these graves, and demonstrated that they could be placed on the peripheries of the burial grounds, and near to boundaries in the landscape or old trackways (Reynolds 2009, Ch. 5).

In our view, the term deviant is only of limited use in a Viking Age context, given the great variation in the burial layouts in this specific period. In spite of this, the Gerdrup grave does still stand out as being somewhat unusual in both a local and a regional context. It is primarily the aspect of the killed son that is striking. But does this aspect make the grave 'deviant'? Or to put it another way, was this grave *meant* to be deviant in its time? If we accept the Katla and Odd scenario from *the Eyrbyggja Saga* – and the DNA results do emphasise the similarities – it could indeed be interpreted as a deviant burial. But if we take into consideration the underlying effort that was involved in constructing the burial, this scenario is undermined. The burial is characterised by a degree of care that seems to indicate interpretations outside the realm of deviancy should be considered.

Conclusion

Is it then possible to reach a final conclusion about the Gerdrup grave, 40 years after its discovery? The answer is no, or at least not a detailed conclusion, but important knowledge has certainly been acquired.

In general, it is striking what a good case study the grave provides when reviewing the research trends, both theoretical and methodical, over the past few decades. In the beginning, the grave was perceived as deviant burial, or perhaps even misinterpreted or inadequately examined. It was one of the first obvious examples of a grave in which a woman was buried with a weapon. But with the emergence of gender archaeology in Scandinavia in the early 2000s, there was an increased focus on 'gender biased' graves, and it turned out that the woman from Gerdrup was no longer alone. In recent years, a new and more complex view of the burials of the Viking Age and the associated rituals has arisen, and raised questions about how the artefacts in the burials should be understood. We must therefore ask the question whether the weapon in the grave really was the woman's property, or could it have been a prop in rituals? At the same time, great strides have been taken within the field of DNA, with large amounts of data having been analysed, using increasingly reliable methods of analysis. This has resulted in confirmation of the biological sex determination of the two deceased individuals, as well as revealing the surprisingly close biological relationship between them. This parent-offspring relationship certainly does give food for thought, and reminds us to always try put our contemporary perceptions aside when examining and attempting to understand the past.

An important theme to consider in future research into the Gerdrup grave is its context and topography. This grave is not a solitary discovery. It belongs to a burial place that, although quantitatively insignificant, was used for 3000 years. The grave is apparently closely related in topographical terms to a group of monumental burial mounds, as well as an important crossing of the valley of the Maglemose Å watercourse. The grave itself was quite elaborate, with the pit having been carefully filled with turfs cut from the surrounding area. Overall, this gives the impression that the burial was the final resting place of an important person rather than an outcast.

A scenario

In the 9th century, this important woman was, at the end of her days, laid in the grave. It was decided to dig the grave pit in the wet lowlands near the crossing of the watercourse, which was overlooked by the monuments of ancestors. Large stones were placed on top of the woman's body, to mark that she was the main person in the burial and in life had a very special role in society. By her side lay her son, with no stones on top of his body. He was willingly killed for the occasion, and had been hanged in devotion to Odin. Only a few belongings were preserved with the two individuals: their personal knives and, in the case of the woman, a needle case. The preceding rituals included the dramatic hanging of the son, the sacrifice and butchering of two goats or sheep – skull fragments from which were later placed in the pit – and the cutting of turfs from the valley. These events lasted for several days. Before the deceased in the now partly water-filled grave were carefully covered with the numerous turfs, a valuable spear was thrust into the bottom of the grave in a concluding ritual that dedicated the dead to Odin.

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Notes

- 1 Site no.: 02.04.08-60 'Kirkerup'. Case no. 242/35 in the report archive (prehistory) at the National Museum in Copenhagen.
- 2 Site no.: 02.04.08-20 'Gjerdrup'. Case no. 603/63 in the report archive (prehistory) at the National Museum in Copenhagen.
- 3 The Gerdrup excavations have the site no.: 02.04.08-67 'Gerdrup'. The finds, documentation and related material have case no. ROM 191 in ROMU's archive. The excavations were conducted by archaeologist Tom Christensen.

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