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RESEARCH ARTICLE

The chronology and structure of the Sejlflod cemetery, Northern Jutland, Denmark

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ABSTRACT

The Sejlflod cemetery in Northern Jutland, containing almost 300 graves from the Late Roman and Early Germanic Iron Age, occupies a central position in a North European perspective. This arises in particular from the fact that the graves are inhumation burials furnished with a relative abundance of grave goods and that the cemetery represents the entire adult population of a village through time. An understanding of the Sejlflod cemetery is important for investigations of other similar cemeteries and burial grounds, for studies of a range of period-defining artefacts and for analyses of the social circumstances of the time. It is, however, heavily dependent on knowledge of the cemetery's chronological structure.

On the basis of the pottery, it has proved possible to divide the cemetery up into four chronological phases. This division is supported by stylistic and chronological analyses of the fibulas and a few other artefact types from the graves.

Surprisingly, the chronological analysis does not reveal a horizontal stratigraphical development. On the contrary, it provides a basis for a new interpretation of the cemetery as a progressive fusion of independent family grave clusters.

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The Sejlflod cemetery

The cemetery is located in the eastern part of the Limfjord area, on a conspicuous *bakkeø* (hill island) surrounded by wetland areas (Figure 1). The site was excavated between 1979 and 1985 in advance of the expansion of a gravel quarry and the excavations covered an area of 11 ha. In addition to the graves, an Iron Age settlement with remains of more than 120 house sites – mostly dating from the Late Iron Age – was also investigated. Part of this settlement is coeval with the cemetery, which lies to the south. The cemetery comprises a northern group (grave group 1), containing 105 graves, and a southern group (grave group 2), containing 202 graves (Figure 2). Both grave groups were excavated in full.

The groups include two graves from the Neolithic (AS and PY), and six graves from the Early Roman Iron Age (DF, DM, EE, QS, QT and UG) are located peripherally. Rather more than 50 graves or grave-like features occur outside the two grave groups – some on the settlement, others to the east of the cemetery. These include three adult graves (AEQ, AER and AQY), which are coeval with grave groups 1 and 2, child graves located within or close to house sites and graves dating from other periods.

This paper deals with the remaining 299 graves in grave groups 1 and 2, which can, with reasonable certainty, be assigned to the Late Roman and Early Germanic Iron Age (Nielsen 2000).

Pottery analysis

Pottery vessels comprise the largest group of finds in the graves and it was decided to base the chronological studies on this material. The actual analysis is based on profile drawings of the vessels produced by Ringtved, Aarhus University, together with photos of the vessels and drawings of their ornamentation in the catalogue published from the site (Nielsen 2000). Furthermore, an unpublished classification of the ornamentation, carried out by J.N. Nielsen, was used as a basis for studies of the pottery chronology.

Potsherds or complete vessels were found in 263 of the 299 graves and a total of 500 pottery vessels were included in the analyses. The variable conditions for

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Supplemental data for this article can be accessed here.

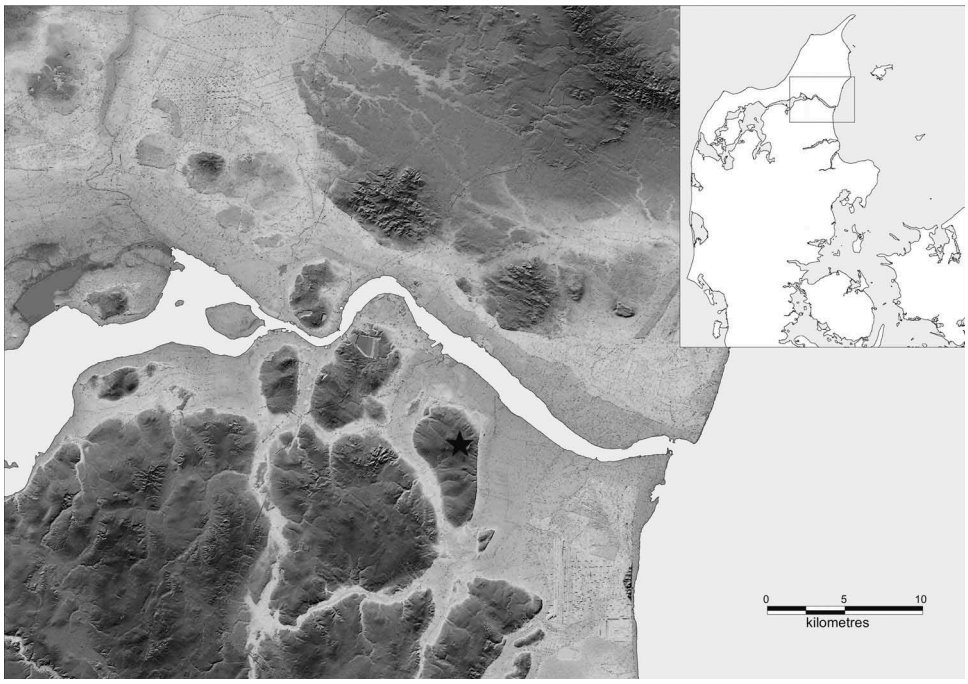

Figure 1. Relief map of the eastern part of the Limfjord area, showing the location of the Sejlflod site. © The Danish Agency for Culture and COWI.

Figure 2. The excavated area at Sejlflod. Settlement traces are shown in light grey and graves in black. Several sunken-floored houses from the Early Iron Age have only been recorded as crop marks on aerial photos and by trial trenching. The houses are located to the south and east of the scheduled burial mound Tofthøj (shown with a grey circle).

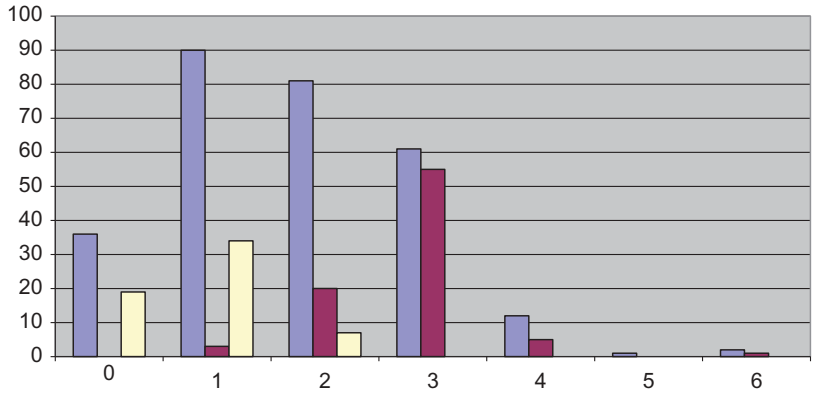

Figure 3. Number of pottery vessels in, respectively, adult graves (red) and child graves (yellow) and all graves (blue) (for colour image please see online article). *N*: 283 graves, of which 84 are adult graves and 38 are child graves. In 16 graves, the number of vessels could not be determined.

preservation made it difficult in several cases to estimate the number and types of vessels present and their position in the graves, but a general set of burial practices could be clearly identified.

The graves only exceptionally contained more than three vessels, and only three graves contained more than four vessels (Figure 3): grave IN with five vessels and graves ZF and ZL each with six vessels. The number of vessels in each grave is highly dependent on the age of the deceased. Of the 84 definite adult graves, 55 contained three vessels. Child graves, on the other hand, are characterised by only one or two vessels.

Total 90% of the pots fall into one of three trisegmented types: coarsely tempered, unornamented handled vessels, burnished and ornamented handled vessels and jars (Table 1). The vessels are equivalent to Ringtved's types H, G and C (Ringtved 1988, p. 113f). The remaining vessels can be classified as miniature vessels, dishes, bowls, beakers and a leftover group termed 'other'.

As can be seen from the abundance diagram presented in Figure 4, the three most frequent vessel types are distributed equally across the graves. Fifty-eight graves contain an ornamented handled vessel, an unornamented handled vessel and an ornamented jar. In the following, this combination will be referred to as a complete vessel set (Figure 5). Grave ZF contains two complete vessel sets and probably represents a double grave (Nielsen 1991, p. 121f, Figure 8(a) and 8(b). A further 18 graves contain at least three vessels. In three of these, the pottery is so fragmented that the vessels cannot be identified to type (AG, IM and TQ). It is therefore conceivable that these graves contained a complete (albeit now fragmented) set of pottery vessels. In two cases, an ornamented handled vessel was replaced by an unornamented handled vessel (CT and HY), and in another two instances, the opposite situation is apparent (AQ and AAH). In five graves, one of the vessels in the complete set was replaced by a miniature vessel (C, U, IO, QP and ZT). In graves TD and VQ the ornamented jar was replaced with an unornamented handled vessel, and in graves A and UC, the unornamented handled vessel was replaced by, respectively, a handled bowl and a jar with a lug, that is, a small vertical protrusion, sometimes with a small horizontal perforation.

Some graves contain special vessels (e.g. AE, IN). Despite the presence of four vessels, AE does not contain a complete set, as both the jar and the ornamented handled vessel are absent. Instead, the grave has a jug and an ornamented handled bowl. Close parallels to the jug have been found on Bornholm, and it is assumed that both the jug and the woman buried in the grave came to Sejlflod in connection with some marriage arrangement. Grave FL also contains an atypical vessel that apparently originated in northwestern

Table 1. Distribution of vessel types and proportion of ornamented vessels within each type. N: 500 vessels. (*) Ten lugged jars are recorded under 'unornamented jars'.

Vessel type	Ornamented	Unornamented	Total
Jar	138	15*	153
Handled vessel	156	145	301
Miniature vessel	5	9	14
Other types	5	8	13
Unknown type	-	-	19

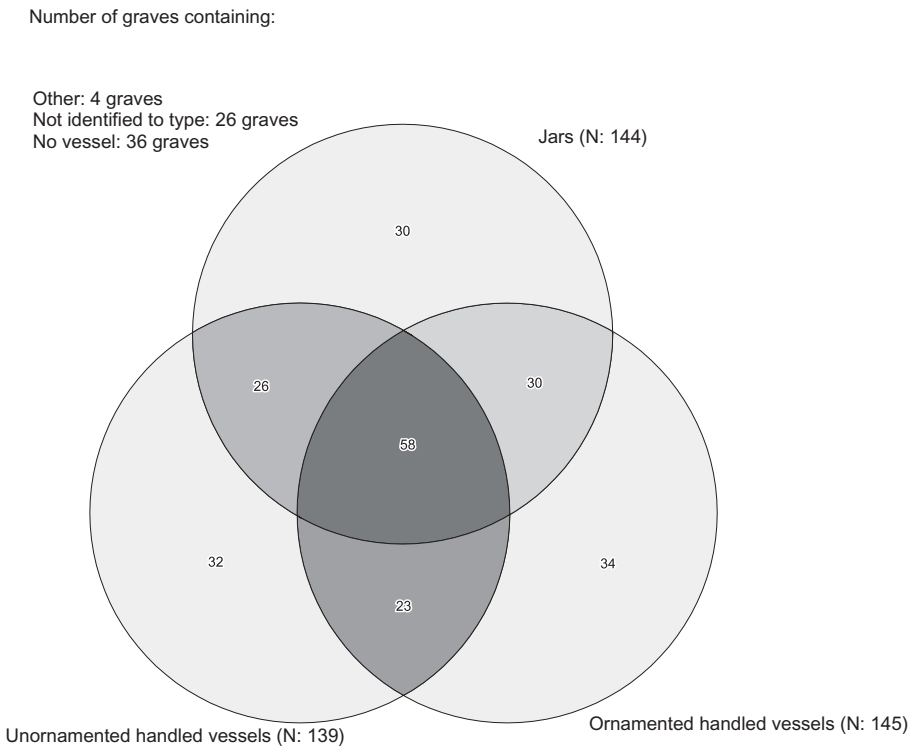

Figure 4. Venn diagram showing the number of graves-containing jars, ornamented and unornamented vessels. A total of 36 graves contain no pottery vessels, while 26 graves contain vessels that cannot be identified to type; 58 graves contain a complete set of pottery vessels (unornamented handled vessel, ornamented handled vessel and jar). *N*: 299 graves.

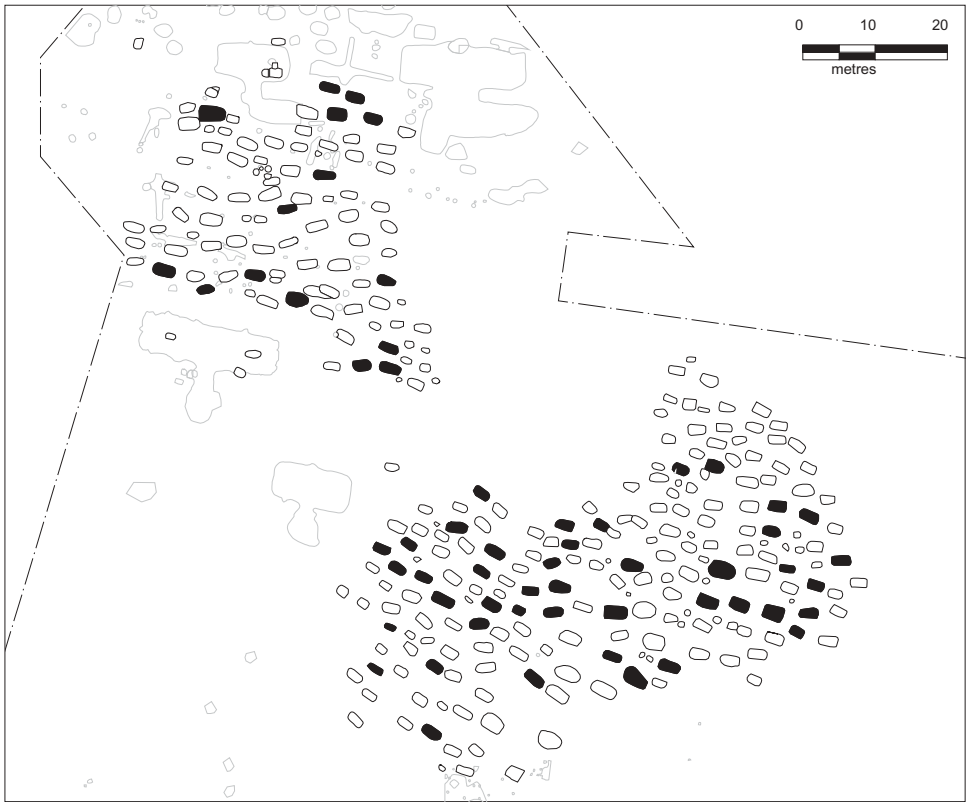

Figure 5. Distribution of graves containing a complete set of pottery vessels. *N*: 58 graves. Grave AQY on the settlement also contains a complete set.

Germany (Ringtved 1991, p. 54). In other instances, the jars were probably made locally, but were modelled on metal vessels. The jar in PH is clearly an imitation of a *Vestlandskedel*, a large metal cauldron, and IN contains an ornamented vessel with two ceramic suspension rings (see Mackeprang 1943, p. 46f; Ringtved 1991, p. 54ff; Lund Hansen 1995, p. 154f). Other graves contain pottery beakers that are imitations of glass beakers (e.g. A, O).

In the following analyses, the three most frequent vessel types will be dealt with independently. The ornamented vessels constitute the foundation for the chronological analyses. These analyses comprise a number of quantitative studies, including correspondence analysis (CA) of the ornamentation and principal components analysis (PCA) of various measurements made on the vessels. In recent decades, these techniques have often been applied to chronological studies of material culture. For more detailed practical information, reference is made to Madsen (1988) and Jensen and Høilund Nielsen (1997).

Unornamented handled vessels

The 145 unornamented handled vessels (UHV) are distributed across 139 graves. In addition to their lack of ornamentation, they differ in several other ways from the ornamented handled vessels. Ware thickness, tempering and firing are significantly different in the two vessel types, which can also be distinguished on the basis of their form. The latter has been demonstrated by a PCA of the dimensions of the handled vessels. As it was the form and not the actual size of the vessels that was in focus, all the measurements were standardised on the basis of the vessel volume. In order to simplify the calculations, and ensure that as many vessels as possible could be included in the study, the truncated cone volume was employed. This is based on the vessel height (H) and the radius of, respectively, the rim (r) and belly (R) (Figure 6). The volume is calculated by the following formula:

$$V = 1/3H\pi\ (R^2 + r^2 + Rr).$$

The measurements included in the PCA were diameters of the rim, neck and belly, vessel height and the position of the belly transition, measured from the base of the vessel. The analysis also included the

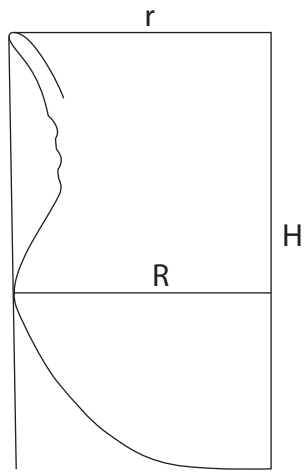

Figure 6. Handled vessels showing the measurements used in the principal components analysis (PCA) of the pottery vessels.

15 unornamented jars (cf. Table 1). The unornamented vessels can be divided into two types, one of which has a lug. The 10 graves containing vessels with lugs are all in grave group 2. The combination with other vessel types in the graves provides no clear indication of the degree to which this vessel type should be seen as a jar or a handled vessel. In three cases, a vessel with a lug is combined with a jar (FM, HL and UC) and in three other cases with either ornamented (EM) or unornamented handled vessels (DZ and, FR). Four graves contain no other types of vessel (HT, OT, RI and ACY). UC is the only grave at Sejlflod in which a vessel with a lug is combined with both a jar and an ornamented handled vessel. In so far as the grave contents reflect a complete vessel set, the lugged vessels must be perceived as a variant of the unornamented handled vessels.

Figure 7 shows the separation of the handled vessels in the PCA. The grouping is not unequivocal, but the unornamented and the ornamented vessels do appear to be mutually exclusive. Lugged vessels are clearly positioned marginally in the group of unornamented handled vessels.

Ornamentation

The ornamentation on both handled vessels and jars shows great variation but also has the common feature of being primarily limited to an encircling band on the belly and/or upper part of the vessel. In several cases, this band can be seen to be divided up

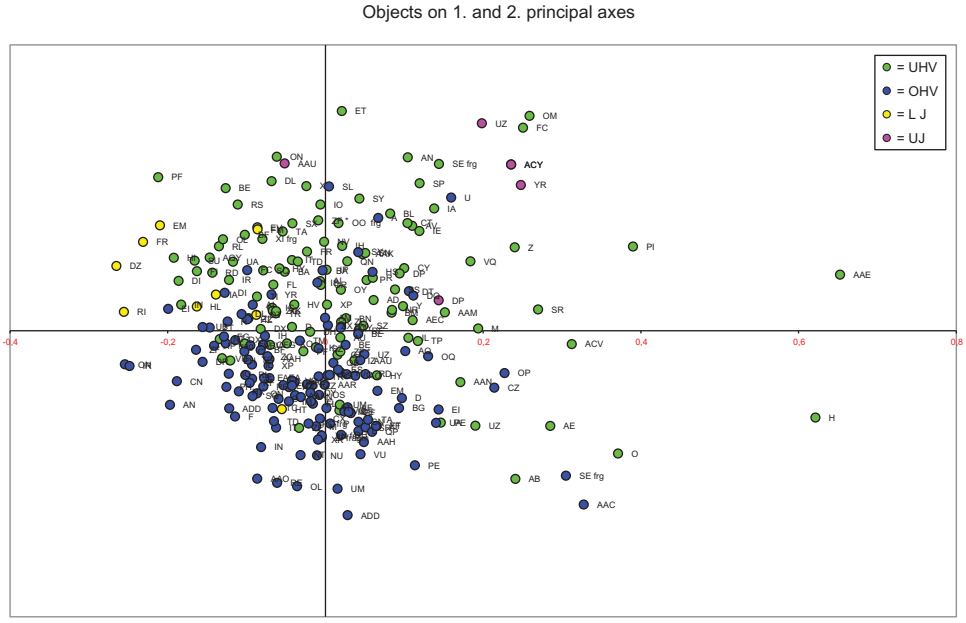

Figure 7. Plot of the first and second principal axes of the PCA of measurements on the handled vessels, adjusted according to the volume of the vessels. UHV = unornamented handled vessel, OHV = ornamented handled vessel, LJ = lugged jar, UJ = unornamented jar. *N*: 258.

into a number of ornamented zones or bundles, often with a symmetrical expression in the application of the latter. The bundles can be vertical, horizontal or oblique. For example, this can take the form of two bundles of horizontal furrows, separated by three bundles of vertical furrows and rosettes, as seen on EUx3011 (Figure 8).

The composition of ornamentation can also be perceived as a whole, that is, a complete entity involving several elements. It may take the form of two complete encircling horizontal furrows, as seen on ITx4185, or a continual sequence of broad, vertical furrows, as evident on DLx925. In addition to lines and furrows, pits of various sizes may also be included. The latter can be assigned to one of three size categories: small (Ps), medium (Pm) and large (Pl). Like the lines and furrows, the pits can also be grouped according to their orientation (horizontal,

Figure 8. Ornamented handled vessel from grave EU with ornamentation drawn in (Nielsen 2000, p. 71).

Table 2. Presence of the various forms of pits on, respectively, handled vessels and jars. N: 65.

	Small pits			Medium pits			Large pits	
Description	Type	Handled vessels	Jars	Type	Handled vessels	jars	Type	Handled vessels
Horizontal main composition with	Ps1	0	2	Pm1	2	4	Pl1	6
Vertical main composition with	Ps2	3	0	Pm2	2	2	Pl2	0
Vertical bundle of	Ps4	0	1	Pm4	0	0	Pl4	8
Oblique bundle of	Ps5	2	2	Pm5	0	1	Pl5	0
Occasional, evenly spaced vertical	Ps6	0	4	Pm6	0	4	Pl6	1
Fill of	Ps10	2	5	Pm10	5	2	Pl10	0
Total		7	14		9	13		15

vertical or oblique). However, a number of pits function more as fill between the other elements of composition and are therefore given the suffix 10 in the analysis: Scattered small pits used as fill are therefore termed Ps10 (e.g. on IGx3517, which has three small pits surrounded by oblique furrows). Several of the identified pit ornaments occur infrequently in the assemblage and cannot therefore be included in the chronological studies (Table 2). It should be noted that Ps, the group of small pits, is found twice as frequently on the jars as on the handled vessels. Conversely, large pits are twice as common on the handled vessels as on the jars. Even though the overall assemblage is of limited size, this difference represents a chronologically determined division, as will be made clear below.

A number of other characteristic ornamental elements are included in the analysis: rosettes, horizontal bands with oblique notches, lugs, knobs, etc.

The pottery analysis is based on the ornamentation represented by the individual bundles. Consequently, no attempt has been made to identify or distinguish vessel groups possessing uniform ornamentation. Instead, each vessel is characterised by a combination of decorative elements in the form of various bundles, rows and stamps. On the vessel from grave EU mentioned above, the ornamentation can therefore be described by the presence of the following variables: horizontal and vertical bundles of furrows together with rosettes. The vessel also has three fully encircling horizontal furrows placed above the aforementioned bundles. This decorative element can thereby be considered as a fourth variable. It should be pointed out that a bundle consists of at least two furrows or similar. In addition to its orientation (vertical, horizontal or oblique), the ornamentation can be classified according to the technique employed. There are lines and furrows of various widths. In this study, the furrows are classified as narrow (at least 2 mm wide) and broad (more than 8 mm wide) (Nielsen 2000, p. 23). The combinations of techniques and orientations are illustrated in Table 3.

Table 3. Combination of technique and orientation with respect to the ornamented handled vessels and jars. The predominant composition implies that other ornamentation is limited to a few pits, furrows and so on. In both the main composition and the bundles, there must be a minimum of two lines or furrows.

Description	Lines	Narrow furrows	Broad furrows
Horizontal main composition with	S1	Sf1	Bf1
Vertical main composition with	S2	Sf2	Bf2
Horizontal bundle of	S3	Sf3	Bf3
Vertical bundle of	S4	Sf4	Bf4
Oblique bundle of	S5	Sf5	Bf5
Occasional, evenly spaced vertical	S6	Sf6	Bf6
Several vertical upper bands of	S7	Sf7	Bf7
Curves with	S8	Sf8	Bf8
Crosses with	S9	Sf9	Bf9

Rosettes constitute a widespread decorative element in the Sejlflod cemetery and occur most frequently on the jars. The rosettes can be divided into two groups: Rosette group A is characterised by a concentric sequence of stick stabs/impressions surrounding a slight circular depression or impression (e.g. ZZx2684). Rosette group B is characterised by a distinct circular depression surrounded by small- or medium-sized finger pits (e.g. EUx3011) (Figure 8).

A horizontal band of closely spaced oblique notches is evident on 10 of the handled vessels. On half of these, this band is positioned on a beaded moulding, giving the vessel a plastic expression. A few vessels have a horizontal, fully encircling band containing small closely spaced pits that can possibly

be considered as a variation of the aforementioned oblique-notch pattern.

Yet another characteristic decorative element should be highlighted, that is, the so-called ring pits. These occur only rarely on the handled vessels (four examples), but are more common on the jars. Other elements comprise bulges, knobs and lugs, but these will be dealt with in more detail in the section on the jars. The distribution of these characteristic decorative elements is far from randomly distributed between the handled vessels and jars: 60% of the jars are characterised by at least one of them, while the corresponding proportion for handled vessels is only 20% (Table 4).

On several of the handled vessels, the handle is flanked by a decorative element and the handle itself may also be ornamented. In other cases, a field of ornamentation is evident on the side of the vessel directly opposite the handle such that it is divided up into two symmetrical semicircles. This is the case for EUx3011, where a rosette flanked by two small vertical furrows is evident on the opposite side to the handle (Figure 8).

The selected decorative elements are all weighted equally in the analyses. This means, for example, that the presence of several bundles of horizontal furrows is ascribed the same significance as an element that only occurs infrequently on the vessel. In theory, there is, therefore, a risk that a vessel on which the ornamentation has an unequivocal 'horizontal expression' will be characterised in the analysis by several vertical elements. In order to avoid this situation, the overall ornamental impression of each vessel has been studied. On the basis of a general and subjective examination, the vessels have been divided up into those with, respectively, a horizontal, a vertical and an oblique composition, as well as examples with an alternating vertical/horizontal pattern. A residual group decorated with complex patterns that cannot be assigned within this system have been grouped under the category 'abstract composition' (e.g. Cx133).

It is evident from this examination of the selected decorative elements that individual vessels can be described on the basis of the presence and combination of one or more elements. The previously mentioned handled vessel EUx3011 can, therefore, be described by the following six variables: Sf3, Sf4, Sf7, rosette B, horizontal/vertical composition with opposing handle ornamentation. The splitting up of the vessel's components into variables means that similarities and differences between the various vessels can be demonstrated using multivariate analysis. As the presence of several of the decorative elements is dependent on vessel type, handled vessels and jars must be analysed separately.

Table 4. Distribution of ornament types on the various vessel types.

Total vessels	135	156	19	310
Ornamentation	Jars	Handled vessels	Other/ unknown	Total
S1	0	0	0	0
S2	0	0	0	0
S3	10	19	2	31
S4	1	8	1	10
S5	18	12	2	32
S6	2	0	0	2
S7	7	4	1	12
S8	0	1	0	1
S9	0	1	0	1
Line ornamentation	21	24	4	49
Percentage	15.6%	15.4%	21.1%	15.8%
Sf1	2	6	2	10
Sf2	7	7	1	15
Sf3	36	41	4	81
Sf4	73	82	6	161
Sf5	29	26	3	58
Sf6	7	5	1	13
Sf7	51	37	3	91
Sf8	9	1	0	10
Sf9	0	1	0	1
Narrow furrows	113	131	14	258
Percentage	83.7%	84.0%	73.7%	83.2%
Bf1	2	0	1	3
Bf2	11	8	1	20
Bf3	3	4	0	7
Bf4	40	34	5	79
Bf5	3	1	0	4
Bf6	7	8	1	16
Bf7	5	0	1	6
Bf8	1	0	0	1
Bf9	0	0	0	0
Broad furrows	67	55	8	130
Percentage	49.6%	35.3%	42.1%	41.9%
Band of oblique notches (moulded)	11	5	2	18
Band of oblique notches	10	5	1	16
Ring pits	11	4	1	16
Rosette A	7	3	0	10
Rosette B	12	7	0	19
Bulges	10	2	1	13
Vertical moulding	25	8	4	37
Lugs	5	0	1	6
Decorative elements	81	32	10	123
Percentage	60.0%	20.5%	52.6%	39.7%

Ornamented handled vessels

In the detailed analyses use was made of CA, employing the computer programme CAPCA version 3.0, which was developed by Torsten Madsen for Excel (see www.archaeoinfo.dk). Insofar as the material can be arranged in a chronologically determined seriation, the plot of the results of the analysis will have the form of a parabola. A number of requirements with respect to the analytical method must, however, be met. A seriation is based on the combination of several elements. Consequently, a vessel on which only a single ornamental element is present, or a variable that only occurs in a single case, does not contribute to the analysis. Only decorative elements/variables that appear on more than one handled vessel can be included in the analysis. Correspondingly, vessels possessing less than two variables are similarly excluded. This means that eight handled vessels had to be omitted from the CA. Four vessels are not included because their description, photo and drawing do not match up in the catalogue (HSx3124, IPx3505, ZEx5692 and ZGx2792).

A few variables have similarly been omitted from the analysis as they appear to skew the plot resulting from the CA. This could be due to the decorative element not fulfilling the requirement for continuity, whereby an element is introduced, becomes common and then is ultimately phased out from the assemblage. This is seen, for example, in the case of ornamented handles, a variable that is evident on one in three handles and appears to be predominantly associated with the later handled vessels. This element is not, however, limited to a narrow time frame. Accordingly, variable Sf1, and bands with oblique notches, have been excluded from the analysis. Horizontal furrows occur as the main composition (Sf1) on only six handled vessels and this element does not appear to be chronologically determined. A horizontal band with oblique notches is evident on 10 handled vessels and is similarly impossible to link to a particular period. A series of variables had also to be omitted from the analysis as they only occur infrequently on the handled vessels (fewer than two occurrences): S8, S9, Sf8, Sf9, Bf5.

Ultimately, the CA of the ornamented handled vessels comprised 143 vessels and 32 variables, and the resulting plot is shown in Figure 9 (see also the sorted matrix in Appendix A). Both the objects (graves) and the variables (decorative elements) form a relatively convincing parabola, indicating that the composition of the decorative elements is chronologically determined and that the material can be seriated. Close to the zero point on the plot is handled vessel x387 from grave Y. This vessel is

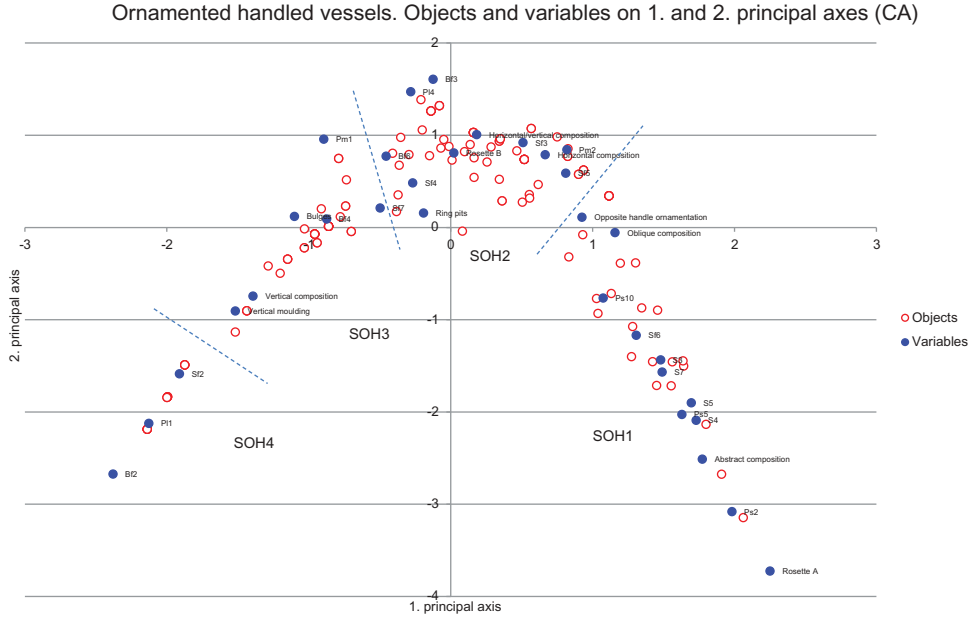

Figure 9. The chronological division of the ornamented handled vessels based on a plot of the first and second principal axes of the correspondence analysis. *N*: 143 vessels and 32 variables. The phases are shown separated by dotted lines. The sorted matrix is represented in Appendix A.

positioned between the two limbs of the parabola because its combination of decorative elements is unique and does not concur with that of the other vessels in the assemblage. Vessel x387 is characterised accordingly by bundles of horizontal lines (S3) and bundles of broad vertical furrows (Bf4), that is, elements that are characteristic of, respectively, the right and left limbs of the parabola.

On the basis of the CA, the handled vessels can be assigned to one of four phases, which in the following will be termed SOH1-4 (i.e. Sejlflod, ornamented handled vessels phases 1–4).

Jars

Unlike the ornamented handled vessels, the jars can be divided up into two clearly distinct form groups. A diagram showing the height and neck diameter of the jars (Figure 10) clearly demonstrates that the material can be divided, respectively, into narrow- and wide-necked jars. The narrow-necked jars (NNJ) have a neck diameter of c. 8–9 cm, irrespective of vessel height, while the wide-necked jars (WNJ) are characterised by a proportional relationship between vessel height and neck diameter. This bipartite division of the form of the jars was also highlighted in Ringtved's studies of the Sejlflod cemetery, with the NNJ being assigned to the Late Roman Iron Age and the WNJ to the Early Germanic Iron Age (1988, p. 119ff).

As already stated, the degree of ornamentation and, in particular, the variation in the decorative elements is greatest on the jars. As a starting point, the chronological analysis of the jars was based on a CA of the aforementioned decorative elements, with the exception of the elements that can exclusively be linked to the handled vessels (e.g. handle ornamentation). The analysis also included the variable WNJ. In a few cases, the jars are unornamented (DP, IA and AAU), or have very unusual ornamentation (U and PC). A total of 131 jars and 38 variables were included in the analysis.

A plot of the first and second axes of the CA is shown in Figure 11. On the basis of this, the jars can be assigned to one of six phases (see also the sorted matrix in Appendix B). With a small number of exceptions, all the jars assigned to the three earliest phases are narrow-necked, while wide-necked examples appear in the three latest phases. This does not represent a replacement of one form by the other, as NNJ continued in use throughout the entire lifetime of the cemetery. A further common factor evident in the earliest three jar phases is the use of line ornamentation.

Phasing of the Sejlflod cemetery

In the above analyses, the ornamented handled vessels were assigned to four phases (SOH1-4), while the jars were assigned six phases (SJ1-6). In order to

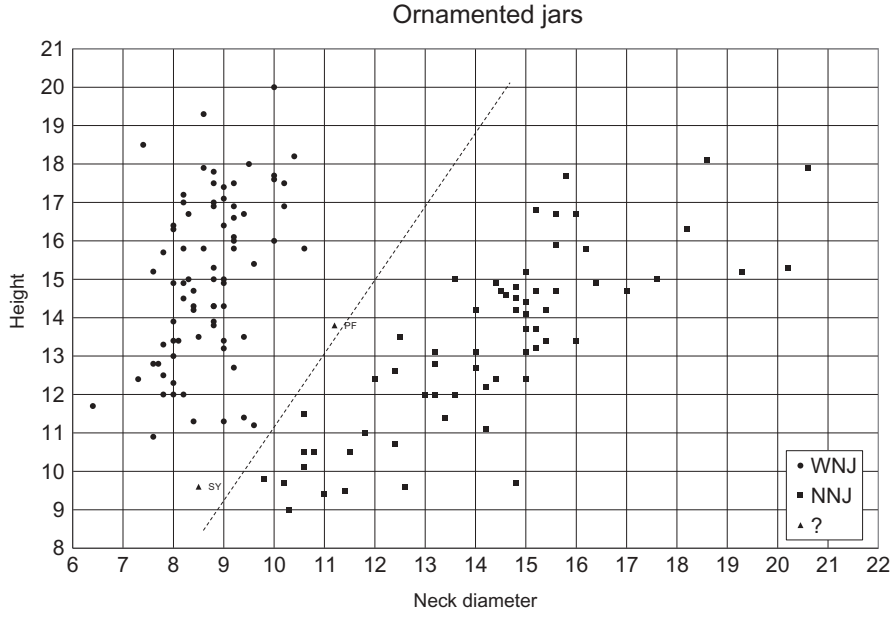

Figure 10. Division of jars into, respectively, narrow-necked (NNJ) and wide-necked (WNJ) examples. *N*: 143 jars, on which both the height and neck diameter can be measured.

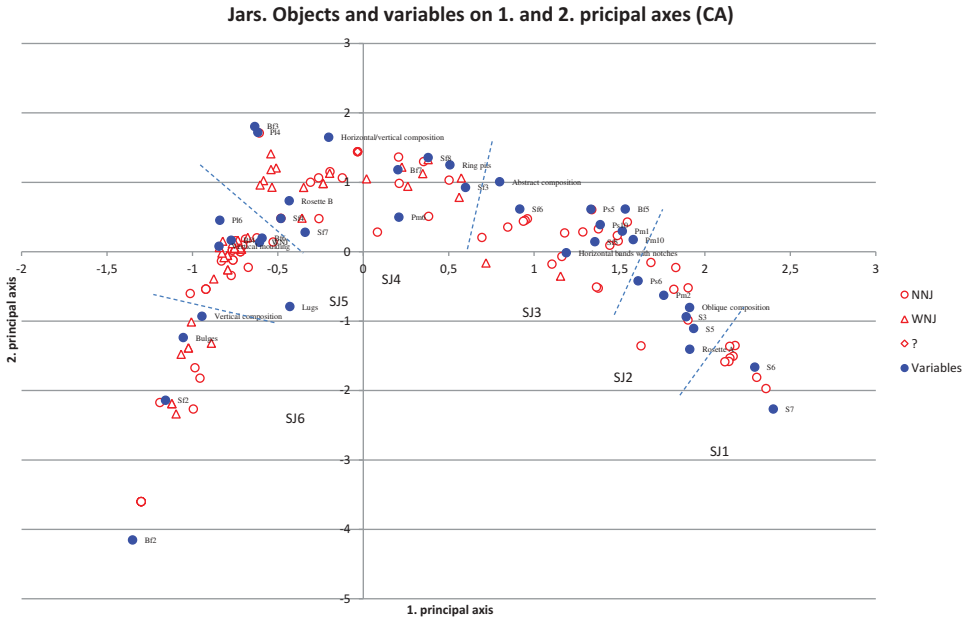

Figure 11. The chronological division of the jars from the Sejlflod cemetery based on a plot of the first and second principal axes of the correspondence analysis. The dotted line shows the chosen phasing for the material. *N*: 131 vessels and 37 variables. The sorted matrix is presented in Appendix B.

juxtapose these various phases, all the vessels that can be ascribed to the same phase will, in the following analysis, be considered as a single object. This object will thereby contain all the variables present and phase SJ1 will, accordingly, contain four occurrences of rosette type A, four occurrences of horizontal bunches of stripes (S3) etc. (see Table 5). It is then possible to carry out a CA of all the variables and the 10 pottery phases. This method means that variables such as WNJ and opposing handle ornamentation can be included in the final analysis, despite the fact that they are form specific. The analysis was based on 289 vessels, and the plot of the first and second axes of the CA is shown in Figure 12. As can be seen from the plot and the associated sums of the variable numbers (Table 6), the material can be grouped into four phases, with a further division perhaps being possible within phase 1.

Phase 1 is characterised by variables on the right limb of the parabola and contains pottery phases SJ1, SJ2, SJ3 and SOH1. Among the variables, line ornamentation in particular should be highlighted. Virtually, all the pottery vessels from Sejlflod with line ornamentation can be assigned to this phase. Another characteristic comprises rosettes with stick stabs/impressions (rosette type A) as well as an oblique main composition. The latter composition does, however, also appear in the subsequent phase. As for pits, mostly small pits are present on the vessels. Narrow furrows are not uncommon and occur most frequently in the form of oblique bundles. Based on the jars, a subdivision into, respectively, early, middle and late phase 1 may be possible. Horizontal bundles of narrow furrows (Sf3), in particular, appear to be a late feature. With the exception of those from graves K and ZZ, all the jars are narrow-necked. Opposing handle ornamentation occurs on about one in four ornamented handled vessels. A total of 33 jars and 26 ornamented handled vessels can be assigned to phase 1.

Phase 2 is made up of SJ4 and SOH2 at the middle of the parabola. Narrow furrows in particular characterise this phase, in the form of oblique, horizontal and vertical bundles. The predominant composition consists of horizontal bundles interrupted by vertical bundles. Of 58 vessels with this horizontal/vertical composition, 55 can be assigned to phase 2. A horizontal composition is similarly common. Broad furrows are not absent from phase 2 pottery vessels, but they always occur in combination with narrow furrows. Rosette type A is replaced by rosette type B, which then continues into phase 3. The majority of vessels with ring pits can be ascribed to phase 2. In the jars, an equal distribution is seen between narrow- and wide-necked examples. A total of 35 jars

Table 5. Relation between the identified pottery phases (SJ1-6) and (SOH1-4), cf. Figure 12.

	S7	S6	Rosette A	S5	Ps2	S4	S3	Oblique composition	Ps6	Ps5	Pm10	Sf6	Pm2	Sf5	Bf5	Ps10	Horizontal band with notches	Abstract composition	Opposite handle ornamentation	Horizontal composition	Sf3	Horizontal/ vertical composition
SJ1	6	1	4	6	0	0	3	7	1	0	0	0	1	3	0	0	1	0	0	0	0	0
SJ2	1	1	0	5	0	0	3	4	0	1	1	0	0	3	0	2	1	0	0	0	2	0
SOH1	3	0	2	12	3	7	16	13	0	2	3	4	0	9	0	1	0	4	9	2	3	3
SJ3	0	0	3	6	0	1	5	10	3	1	1	5	1	17	3	1	3	4	0	3	13	0
SOH2	0	0	0	0	0	0	2	7	0	0	2	1	2	17	1	1	0	0	16	20	39	32
SJ4	0	0	0	0	0	0	0	0	0	1	0	2	0	6	0	2	3	5	0	1	20	24
SJ5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SJ6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOH4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	10	2	9	29	3	8	29	41	4	5	7	12	4	55	4	7	8	13	25	26	77	59
1. axis	2.16	2.15	1.87	1.82	1.79	1.72	1.68	1.54	1.52	1.35	1.34	1.15	1.12	1.04	1.04	1.04	1.00	0.93	0.92	0.61	0.55	0.32
2. axis	−2.55	−2.54	−1.86	−1.66	−1.46	−1.32	−1.29	−1.03	−1.05	−0.75	−0.53	−0.28	−0.17	−0.03	0.11	−0.20	−0.25	−0.03	0.38	1.00	0.91	1.24

	Bf3	Bf7	Pl4	Sf8	Ring pits	Pm6	Rosette B	Sf4	Sf7	Bf6	WNJ	Bf4	Pl6	Vertical moulding	Bulges	Vertical composition	Sf2	Pl1	Bf2	Vessels		1. axis	2. axis
SJ1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8		2.01	−2.16
SJ2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	6	59	1.63	−1.25
SOH1	0	0	0	0	0	0	0	6	1	0	0	0	0	0	0	0	0	0	0	26		1.52	−0.98
SJ3	0	1	0	1	2	1	1	4	8	0	2	0	0	0	0	0	0	0	0	19		1.04	−0.22
SOH2	4	0	7	1	2	0	6	41	16	5	0	7	0	0	0	2	0	0	0	63	98	0.37	0.95
SJ4	3	4	3	8	8	2	5	24	12	2	18	7	1	4	1	4	0	0	0	35		0.00	0.90
SJ5	0	0	0	0	0	1	6	42	28	5	27	33	3	20	7	44	0	0	0	45	85	−0.88	0.17
SOH3	0	0	1	0	2	0	1	32	20	3	0	25	1	6	2	38	3	1	0	40		−0.91	0.02
SJ6	0	0	0	0	0	0	0	0	2	0	8	0	0	2	3	18	7	0	11	18	32	−1.63	−2.07
SOH4	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	14	4	3	7	14		−1.85	−2.74
Total	7	5	11	10	14	4	19	150	87	15	55	72	5	34	13	120	14	4	18	274			
1. axis	0.25	0.24	0.18	0.16	0.08	0.05	−0.19	−0.29	−0.41	−0.42	−0.75	−0.81	−0.84	−1.05	−1.17	−1.26	−1.82	−1.91	−2.03				
2. axis	1.39	1.01	1.27	1.18	0.93	0.65	0.86	0.60	0.42	0.74	0.10	0.40	0.42	−0.11	−0.47	−0.77	−2.70	−3.05	−3.47				

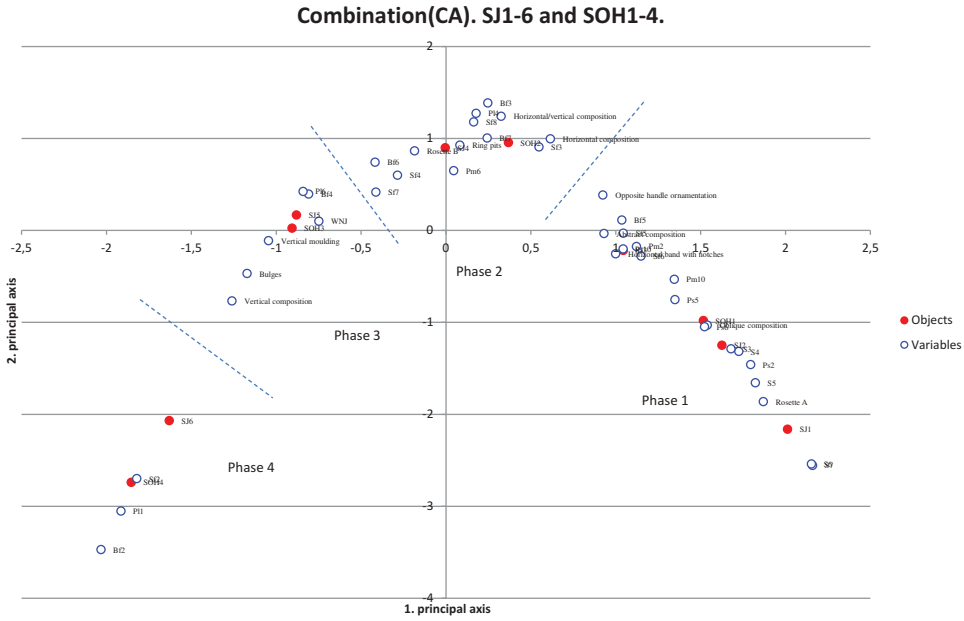

Figure 12. Plot of the correspondence analysis for the 10 identified pottery phases, SJ1-6 and SOH1-4, and division into four phases marked with dotted lines.

and 63 ornamented handled vessels can be ascribed to this phase.

Phase 3 is clearly distinct from phase 2 on the plot and comprises SJ5 and SOH3, with a total of 81 vessels. In phase 3, a marked shift is seen in the orientation of the ornamentation. Where this was previously oblique, horizontal or combined with vertical bundles, it is now exclusively vertical. The ornamentation consists of bundles of narrow and broad furrows, often in combination. A number of vessels from phase 3 are characterised by lugs or bulges which, together with the furrows, give the vessel a plastic expression. One in three vessels is narrow-necked, while the remainder are wide-necked. A total of 45 jars and 40 ornamented handled vessels can be assigned to phase 3.

Phase 4 comprises SJ6 and SOH4. All vessels have a general vertical composition and are characterised by the decorative elements only occasionally being combined with other elements on the same vessel. As a consequence, a main composition in the form of vertical narrow or broad furrows is characteristic of this phase. The vertical ornamentation is only rarely supplemented by lugs, bulges or large pits. In the jars, an equal distribution of narrow- and wide-necked vessels is evident. A total of 18 jars and 14 ornamented handled vessels can be assigned to phase 4.

Synchronisation of the phases

The analyses presented above have dated the individual vessels. However, the graves often contain more than one vessel, and in order to arrive at a date for an individual grave, it is necessary to synchronise the phasing of the jars and handled vessels. The analyses have resulted in 271 vessels from 186 graves being related to a phase. A third of all the graves at Sejlflod cannot be related to a phase on the basis of the elements identified in the pottery. A total of 107 graves contain only one phase-related vessel, while 79 contain at least two. Graves AQ, EK, SY and AAH each contain three phase-related vessels, while double grave ZF contains four.

More than half of the graves containing at least two vessels are characterised by these vessels not having the same dating frame, that is, they are not assigned to the same phase. For example, a typologically early jar may occur in combination with a typologically late handled vessel. In the great majority of cases, the inconsistency is slight, in the sense that the vessels belong to two contiguous phases, that is, one directly follows the other. Accordingly, 12 graves are characterised by containing vessels ascribed to, respectively, phases 1 and 2. Of these, nine have a combination of a handled vessel from phase 2 with a jar assigned to SJ3, that is, the latest part of phase 1. Included in these is one of the sets in

Table 6. The general phasing of the pottery at the Sejlflod cemetery, cf. Figure 12.

	Rosette							Oblique composition											Horizontal band with notches			Abstract composition	Opposite handle ornamentation	Horizontal composition			
	S7	S6	A	S5	Ps2	S4	S3		Bf7	Pl4	Sf8	Ring pits	Ps6	Ps5	Pm6	Pm10	Rosette B	Sf6	Pm2	Sf4	Sf5	Bf5	Ps10	Bf6	WNJ	Bf4	Pl6							
Phase 1	10	2	9	29	3	8	27	34	0	1	0	1	2	4	1	5	1	9	2	11	32	3	4	0	2	0	0	8	9	5	0	0	5	18
Phase 2	0	0	0	0	0	0	1	7	4	10	9	9	0	1	1	2	11	3	2	66	23	1	3	6	18	14	1	5	16	22	0	0	22	59
Phase 3	0	0	0	0	0	0	0	0	0	1	0	2	0	0	1	0	7	0	0	70	0	0	0	7	27	56	4	0	0	0	3	1	0	0
Phase 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	8	0	0	3	0	0	11	3	18	0
Total	10	2	9	29	3	8	28	41	4	12	9	12	4	5	3	7	19	12	4	147	55	4	7	13	55	70	5	13	25	27	14	4	18	77

	Horizontal/ vertical composition	Bf3	Bf7	Pl4	Sf8	Ring pits	Pm6	Ps5	Pm10	Rosette B	Sf4	Sf7	Bf6	WNJ	Bf4	Pl6	Vertical moulding	Bulges	Vertical composition	Sf2	Pl1	Bf2	Vessels
Phase 1	3	0	1	0	1	2	1	4	5	1	11	9	0	2	0	0	0	0	0	0	0	0	59
Phase 2	55	7	4	10	9	9	1	1	2	11	66	27	6	18	14	1	4	1	6	0	0	0	98
Phase 3	0	0	0	1	0	2	1	0	0	7	70	47	7	27	56	4	26	8	78	3	1	0	85
Phase 4	0	0	0	0	0	0	0	0	0	0	0	2	0	8	0	0	4	3	32	11	3	18	32
Total	58	7	5	11	10	13	3	5	7	19	147	85	13	55	70	5	34	12	116	14	4	18	

double grave ZF; the other set is assigned to phase 4. The nine graves can possibly be ascribed to a chronological transitional phase between phases 1 and 2 (C, O, AF, IK, NT, UZ, ZL, AEA and one of the burials in ZF). Similarly, 13 graves, which contain both phase 2 and phase 3 vessels, can possibly be interpreted as representing a chronological interim phase (Figure 13 and 14).

However, there are 13 graves in which the combination of vessels does not support the phasing presented above. This is true in particular of grave P, where a jar from phase 1 occurs with a handled vessel from phase 4. Eight graves combine vessels from phase 2 with vessels from phase 4 (DE, DY, EU, HK, IN, IS, OY and ZF) and four graves contain vessels from both phase 1 and phase 3 (Q, BE, SQ and SR).

Graves Q, SQ, SR and ZF very probably represent the burials of two individuals who ended up in the same grave, but not at the same time, that is, there was a temporal displacement. Grave Q was found to contain two combs and two knives, and the positions of these suggest a double grave, even though its two vessels stand close together at the eastern end. It has already been suggested that grave ZF is a double grave, and the six vessels at the grave's eastern end can immediately be interpreted as two complete vessel sets. However, the relative positions of the vessels apparently reflect a more complicated pattern: The handled vessel from phase 2 is placed beside the jar from phase 4, while the jar from transitional phase 1/2 is located beside the late handled vessel. This must mean that the vessels became mixed up in connection with the later second burial. The fibulas in the grave were found together and correspond to the burial in pottery phase 1/2. Grave SQ contains skeletal remains from two individuals, and the early handled vessel is located in the southwest corner, while the later jar and an associated unornamented handled vessel are located in the northeast corner of the grave. In the southwest corner of nearby grave SR, there is a jar with ornamentation identical to that on the jar in grave SQ, while an early handled vessel is placed at the opposite end of the grave. The two ornamented handled vessels in SQ and SR are remarkably similar, and the graves can be interpreted as two burials in pottery phase 2 that were augmented by two

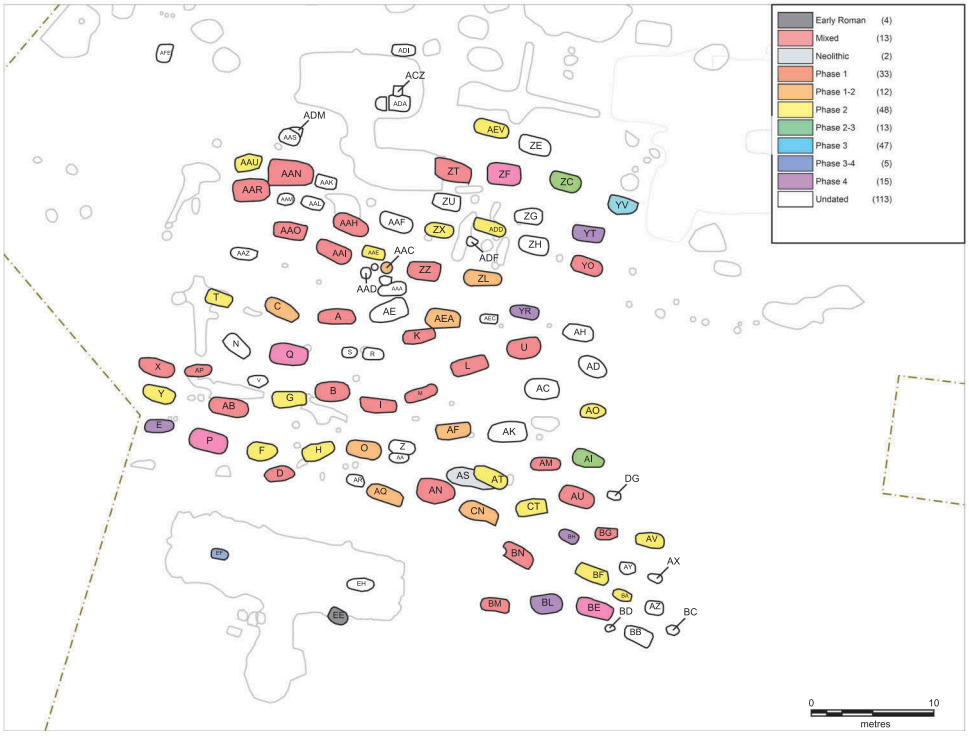

Figure 13. Dating of the graves in grave group 1 (for colour image please see online article).

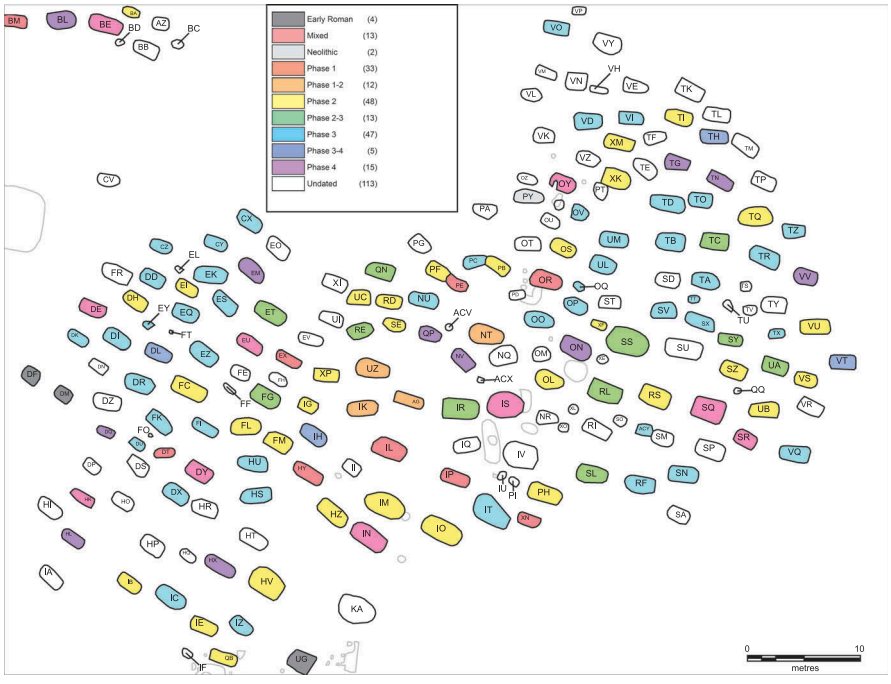

Figure 14. Dating of the graves in grave group 2 (for colour image please see online article).

burials in pottery phase 4. In both cases, the later second burial is characterised by a jar, and it is striking that the two earlier burials do not include a vessel of this type (i.e. a jar). It is first as a result of the later second burial that the vessel sets in the two graves become complete.

A characteristic of the graves outlined here is that the ornamented handled vessels are earlier than the associated jars. Only in graves P and Q, and the disturbed grave IS, is the opposite true. In graves DY, HK and OY, the handled vessels show clear evidence of wear and should perhaps be considered as heirlooms. In graves DY and HK, the later jar is placed in the west end of the grave, while the ornamented handled vessel is placed in the east end, that is, the same pattern as seen in graves SQ and SR. The chronological discrepancy between ornamented handled vessels and jars in graves P, BE, DE and IN cannot be immediately explained. As is apparent from the above, the integrity of graves is, in several cases, either open to discussion or can be directly refuted. Other finds from the Sejlflod cemetery also bear witness to complex burial rituals, which complicate chronological studies. For example, sherds originating from the same vessel were found in both graves EI/EK and graves FI/FK. Whereas graves FI and FK are both assigned to phase 3, grave EI dates to phase 2 and grave EK to phase 3. The probable explanation is that the graves have been disturbed (see below).

The limited synchronisation of the phases probably reflects actual temporal distance between the individual vessels in the graves. The vessels used as grave goods were not specifically manufactured for the purpose, but were for everyday use. This is evident, for example, from the burnt food crust seen adhering to some unornamented handled vessels, for example, BMx572 and SXx26698; the latter shows furthermore heavy wear on its base. An unornamented handled vessel, SYx2347, lacks its handle and the break has been smoothed and polished. This shows that the handle had broken off before the vessel was placed in the grave. Two handled vessels, HIx3108 and VQx2445, originally had two handles but in each case one of them is missing. It was perhaps broken off before the vessel was placed in the grave in order for it to conform to the usual type for this purpose. On other vessels the rim has been smoothed and polished, possibly following a break (EX, OV and QN). This feature should probably be interpreted as showing that personal association played a far greater role than, for example, the vessel's appearance. A very striking demonstration of the fact that these were vessels, which had been used is that several of them have been repaired. Flaking or actual minor breaks at the rim that have been repaired with clay or, more frequently, a mixture of animal and vegetable fat, are yet another feature reflecting personal affiliation (Jysk Teknologisk Institut 1983–1986).

Dating of the pottery phases

In the following, other date-conferring artefacts, primarily fibulas, will be related to the pottery phases and viewed in the light of Ringtved (1988) and Rau's (2010) chronological analyses. In his chronological analysis, Rau divides the costume components into four costume component zones (*trachtbestandteilzonen*) (Rau 2010, p. 78, 104; Figures. 38.1and 38.2). These zones are then related to the established chronological phasing of the Late Roman Iron Age and Early Germanic Iron Age presented by U. Lund Hansen (1987). All the phases have graves in which only fragments of fibulas, often knobs, are preserved. In these cases, identification to type is not possible.

Pottery phase 1

In fibula phase 1, the following fibula types are present: bronze fibulas of types Almgren group VII series 2 and 3, Gudumholm fibulas, Haraldsted fibulas and sheet silver fibulas. Six graves contain fibulas and fibula fragments. In grave U, fibulas x2003 and x2006 are identified typologically as Almgren group VII series 2 or 3 or as Gudumholm fibulas. There is a striking similarity to x355 from grave AB. There are also two sheet bronze fibulas in grave U. These have a rhombic foot and, respectively, a rectangular and a semicircular head plate. Grave AB was found to contain two crossbow fibulas (x355 and x448). Ringtved identifies x448 as being an Almgren group VII series 3 tending towards a Gudumholm fibula and she does not attempt to identify x355 (1988, p. 136). Rau defines x355 as a Haraldsted fibula A and x448 as a Mackeprang III 3 (possibly 2) (2010, p. 48). Even though they are identified to different types, the two fibulas are very similar to one another in type and form. As they were found in the same grave, they must in principle also be considered to be coeval. Grave AE contained three bronze fibulas: x2012 is an Almgren group VII series 2 and the same could be true of x481, but in typological terms, the latter should perhaps be termed a

Gudumholm fibula. The third bronze fibula, x480, cannot be identified to type due to its poor state of preservation. The grave also contained two sheet silver fibulas, both with a rhombic foot and a semi-circular head plate. As previously stated, the pottery vessels in AE are rather special and are therefore not included in the vessel analyses. The oblique line ornamentation on handled bowl x476 does, however, point unequivocally towards pottery phase 1.

Grave A contains a glass that has been identified as E. Straume's type IA (1987, p. 28). The glass is dated by both Rau and Straume to TZ1 (*Trachtbestandteilzone 1*) or the end of C2b and the beginning of C3a (Rau 2010, p. 73).

On the basis of the pottery vessels, Ringtved dates two of the graves in pottery phase 1 to phase b while 17 graves are assigned to phase c (1988, p. 210). Rau dates the following graves from pottery phase 1 to TZ1: A, I, K, AB and AE (2010, p. 73).

To sum up, there are a few graves from the end of C2b, but most of the graves from pottery phase 1 must be dated to C3a.

The nine graves from a possible 'transitional phase' between pottery phases 1 and 2 contain a small number of fragmented, date-conferring artefacts, but grave C is different. It contains at least two fibulas, found at opposite ends of the grave. One is a rosette fibula, which is so fragmented that its form cannot be determined, but it has decorative knobs of a kind that are also seen on a rosette fibula from Gammel Hasseris (Ringtved 1988, Figure 39a; Skjødt 2009). The other cannot be identified to type. There is possibly a silver-sheet fibula in grave NT, but its form and type cannot be determined.

Ringtved has dated the vessels in six graves from pottery phases 1/2 to her phase c (1988, p. 210). On the basis of a ceramic imitation of a glass beaker, Rau dates grave O to TZ1 or the end of C2b and some way into C3a (2010, p. 73). The same date applies to the belt buckle found in grave AF (Rau 2010, p. 73). A belt buckle in grave UZ is dated by Rau to TZ2, that is, C3b (2010, p. 75).

Pottery phase 2

Seventeen graves in pottery phase 2 contain fibulas, with Haraldsted, Nydam, sheet silver and cruciform types being represented. Grave H contained a fragmented Gudumholm fibula (cf. Ringtved 1988, p. 188, Figure 34). Bronze fibula x2991 from grave ZX is also related to the Gudumholm fibulas, for example, x445 in grave AK or the Haraldsted fibula x2050 in grave FC, and should be considered as an interim form between these two types. It is, however, most closely related to bronze fibula x2605 in grave AAE. A further bronze fibula, x2604, was found in grave AAE, but this is too poorly preserved for it to be identified to type. The Haraldsted fibula x2050 found in grave FC was identified to type by Ringtved (1988, p. 138, Figure 34). This grave also contained silver knobs from a possible sheet silver fibula. In grave FL, Haraldsted fibula x1276 was found together with three Nydam fibulas, x1273, x1278 and x2160. These were identified to type by Ringtved (1988, p. 138, Figure 34). Grave XF contained an exquisite Haraldsted fibula, x2527. In addition to Nydam fibulas in grave FL, this type also occurs in grave FM, where it must be ascribed to the Funen variants (Jensen 1980, p. 192).

Possible cruciform fibulas were found in six graves, but only three are well enough preserved to permit further analysis. The fibula from grave FM is linked stylistically and functionally to the Nydam fibulas and other early cruciform fibulas due to its round knobs and spiral construction. The two cruciform fibulas from graves DH and XM are, on the other hand, later in form, being characterised by flat knobs on the head plate and lugs mounted below the bow.

Ringtved dates 24 graves from pottery phase 2 to her phase c, a further seven graves to phase d and three graves to phase c/d (1988, p. 210). Rau dates two of the graves from pottery phase 2 (ZX and AAE) to TZ1, that is, the end of C2b and C3a (2010, p. 74), six graves to TZ2, that is, C3b (H, AT, FC, FL, IM and XF) and three graves to TZ3, that is, D1 (DH, FM and XM) (2010, p. 74f).

Pottery phase 2 must be dated to C3a/C3b, as there are both earlier fibula types and a few graves containing cruciform fibulas that are probably later than the remainder of the group.

Thirteen graves are either from pottery phase 2 or 3. Ringtved has identified x3852 from grave IR as a Gudumholm fibula (1988, p. 136, Figure 32f.). This fibula is of silver and is related to the Haraldsted fibulas. A difference is though evident in the metal, as well as the form of the bow and the spiral construction. The profiled silver knobs from grave IR

could derive from one or more silver fibulas. The grave also contains a glass which has been identified by Straume to type IV, giving a dating to TZ2 (Ringtved 1991, p. 51; Rau 2010, p. 76). Grave SS contains a belt buckle with an animal head that can be compared stylistically to the foot seen on cruciform fibulas, for example, those in graves TO and AER. Rau dates three graves on the basis of a glass, fibula and belt buckle to C3b (FG, IR and QN) and one grave on the basis of the animal head to D1 (SS) (2010, p. 74f.).

Pottery phase 3

Ten graves from phase 3 contain fibulas. These predominantly comprise cruciform fibulas – 15 examples from seven graves – but there are also Nydam and sheet silver examples. The cruciform fibulas show great variation.

The latest dated fibulas at Sejlflod, x1409 and x1412, are from grave OO. Two sheet silver fibulas are unusual in form: x1413 has a rectangular head plate, a short bow with possible indications of an animal border below the bow and a slightly elongated and weakly trilobate foot. It also has stamped geometric ornamentation; x1411 is an equal-armed sheet silver fibula with stamped ornamentation and gilding. This fibula is an intermediary between *Stützarmfibeln mit Trapezfuss* (*Niedersächsischer Typ*) and *Gleicharmige Kerbscnittfibeln* and is slightly earlier than a *vorform* for the latter from Seraing. It must be dated somewhere in the close vicinity of AD 400 (Böhme 1974, p. 10ff, 299, and pers. comm.).

This fibula type is known primarily from the Elbe-Weser area, and this was presumably the original home of the woman buried in the grave. A similar fibula was found in a grave at Præstestien, Esbjerg.[1] The glass beads suspended on small rings of silver wire, found in grave OO, also show features characteristic of Northwest Europe (Ringtved 1991, p. 57).

The earliest cruciform fibula in this phase is x4581 from grave OP because it has round knobs on its, not particularly, large head plate. Stylistically and chronologically, the fibula is close to the Nydam and Haraldsted fibulas, as well as the cruciform fibula found in grave FM. The next developmental step in the cruciform fibulas is represented by x4434 in grave OP, x1058, x1070 and x1071 in grave DI, x1293 in grave IZ, x2313 in grave TO and x871 in grave DD. The similarity between them lies in the knobs, which are most often polygonal or flat. Several of them have an ornamented field on the bow and/or a degenerate animal border directly beneath the bow. The foot ends in a very marked animal head. Other members of this group include two fibulas from grave IZ (x1282 and x3601). They can be assigned typologically to the group of cruciform fibulas due to the end and side knobs on the head plate, but their technical execution, ornamentation on the head plate, the form of the bow, the animal border and the characteristic trilobate foot link them to the sheet metal fibulas. They are, therefore, interesting in that they link together fibula types that are otherwise perceived as being separate. This middle group of cruciform fibulas covers a long-time span and must be compared in style and execution to the Sösdala and Nydam styles. Pottery phase 3 has some of the latest cruciform fibulas: x1457, x1458 and x7759 from grave TR. Common to all of these is a hollow foot, which is either flared or spade shaped. The latest fibula group must be assigned to early style I.

Grave DI was found to contain a beautiful sheet silver fibula, x1065, with a rectangular head plate, short bow, trilobate foot and with an animal border below the bow. The head plate has two four-legged animals which turn their heads towards each another. They are bearded and on their backs saddles can be seen indicated by triangular ornamentation. Dotted edge ornamentation can be perceived around the two animal figures. The ornamentation of the sheet silver fibula is assigned to the Sösdala style and the grave is dated to the earliest part of the Migration period (Nielsen *et al.* 1985) and thereby to phase D1.

Ringtved has dated 23 graves from pottery phase 3. Of these, 18 are assigned to phase d on the basis of the vessels and/or the fibulas (1988, p. 210). Two graves are placed in phase c, while three are assigned to her phase c/d. Six graves from pottery phase 3 are, based on his dating of fibulas and belt fittings, assigned to Rau's TZ3, that is, D1 (graves CX, CY, DD, ES, OP and TO), while three graves are dated to TZ4, that is, D2a, on the basis of the fibulas (graves DI, IZ and TR) (2010, p. 74f).

The predominance of cruciform fibulas, the few Nydam fibulas, the imported equal-armed sheet

silver fibula and the sheet silver fibula in Sösdala style indicate a dating for pottery phase 3 to C3b and D1 – the earliest part of the Early Germanic Iron Age.

Pottery phase 4

In pottery phase 4 there are fragments of fibulas in only four graves (BL, HX, NV and ON). In the case of two graves (HX and OM), these probably represent knobs from cruciform fibulas and, in grave NV, the silver knobs from a sheet silver fibula. Ringtved has dated seven graves from this group: four to phase c and three to phase d (1988, p. 210). There is, therefore, some uncertainty about the absolute dating of pottery phase 4, but a presumed relative dating to D1, extending into the subsequent D2, seems likely.

Conclusion

The phasing based on the pottery vessels concurs well with developments seen in fibulas in the Late Roman and Early Germanic Iron Age. In relation to Ringtved's work, this paper represents an expansion of her findings in that many more graves in the cemetery can now be dated. There are, however, small chronological inconsistencies between the pottery phases presented here and Rau's results. This could in part be due to the fact that Rau analysed a smaller number of graves than examined in this analysis and that a few graves must be considered as being mixed and, consequently, they lack an unequivocal date.

It is important that a typological–chronological development can now be seen in the cruciform fibulas – this was previously difficult – and that this type apparently occurs as early as the Late Roman Iron Age (Brinch Madsen 1975, Reichstein 1975) (Figure 15).

The structure of the cemetery

There is a widespread perception that the cemeteries of the Iron Age developed stratigraphically in a horizontal direction (e.g. Hjemsted, Enderupskov – see below). This situation was also expected at Sejlflod (Ringtved 1988, p. 121, 158, 165, 1991, p. 59, Nielsen 1991, p. 117). However, the distribution of graves from the four phases demonstrates that this was clearly not the case. On the contrary, the cemetery almost has the form of a chronological patchwork.

Some general trends are, however, evident in the distribution of the phases:

Grave group 1: Graves from phase 1 (25 graves) and phase 2 (16 graves), which lie, respectively, centrally and to the north and south of the centre, are predominant. There is a slight tendency towards the formation of small groups. There is only one grave from phase 3, but five peripherally located graves from phase 4. The 'missing' graves from phase 3 are perhaps due to some of the undated graves actually belonging to this phase or the fact that graves were primarily located in grave group 2 during this phase.

Grave group 2: There are eight graves from phase 1 in the central part. Graves from phase 2 are more

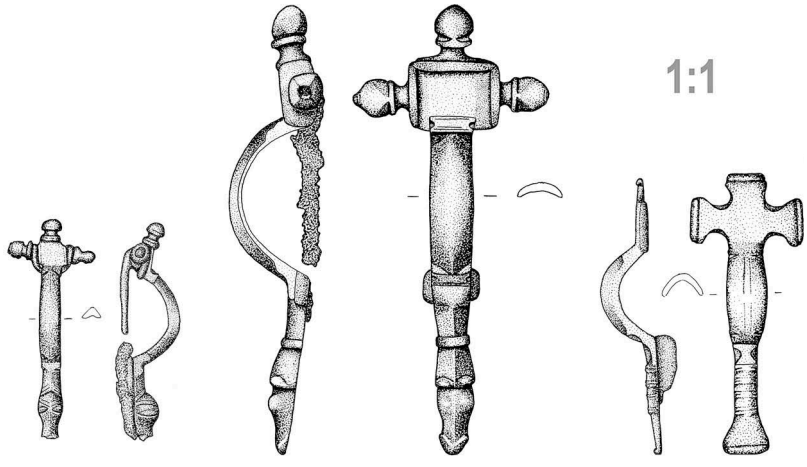

Figure 15. The typological development of the cruciform fibulas at Sejlflod. From the left, x1248 (FM), x2313 (TO) and x1458 (TR).

Table 7. Dating of pottery phases 1–4 in relation to fibula types.

Pottery phase 1 C2b-C3a	Pottery phase 2 C3a-C3b	Pottery phase 3 C3b-D1	Pottery phase 4 D1-D2?
Almgren gr. VII ser. 2–3			
Gudumholm fibula	Gudumholm fibula		
Haraldsted fibula	Haraldsted fibula		
Sheet silver fibula	Sheet silver fibula	Sheet silver fibula	Sheet silver fibula
	Nydam fibula	Nydam fibula	
	Cruciform fibula	Cruciform fibula	Cruciform fibula

frequent (32 graves), and most of these are located centrally, together with the graves from phase 1. The 46 graves from phase 3 and 10 graves from phase 4 lie primarily to the east and west of the central part: Graves from phases 2 and 3 show a tendency to form small groups.

The occurrence of phase 1 graves in grave group 2 shows that this group was established while grave group 1 was still in use. This could, as previously suggested, be due to a lack of space in grave group 1. However, as there are also graves from phases 2, 3 and 4 present, this cannot be the case (Nielsen 1982, 1991, p. 117). The two grave groups were, therefore, in use at the same time, although differences are evident in their centres of gravity.

The first graves lie centrally in grave group 1, midway between three sunken-floored longhouses from the Early Roman Iron Age. They include graves A and I, which Ringtved dates to the end of phase b (Ringtved 1988, p. 139, 158). It is, therefore, likely that the cemetery was founded at the end of the third century AD, corresponding to C2b (see Table 7).

In both grave groups, the earliest graves lie in association with one or two other graves, with a grave-free zone around them (graves R, S and IL).

The distribution of graves from the four phases, and the presence of graves from both phase 1 and phase 4 in the same area, suggest that the cemetery developed concurrently in several areas.

General guidelines

Developments in the various areas of the cemetery took place, to a great degree, according to some general overarching guidelines. They respected house sites and graves from the Early Roman Iron Age and wells from the Early Iron Age, as well as geological phenomena (Nielsen and Rasmussen 1986, p. 20; Nielsen 2000, p. 13). The burial practices are characterised by uniformity, for example, marker stones/stone grave markers, respect for earlier graves, use of oak for wooden coffins, charring of the planks, marking of demographic and social equality and differences (Malmros 1989–1991). The extensive evidence of care for the dead should also be mentioned: Hay has been found on the floor of coffins as well as skin/hide and cloth/textile (a blanket?) under and over the deceased. Grave DY, in particular, showed a clear stratigraphy, with hay at the base, followed by skin/hide with the hair-side uppermost, textile, body traces and then textile again. A similar situation was observed in other graves, including DZ, HS and DI. Skin/hide was recognised in 19 graves. A wooden bucket in grave AT was found to contain woollen threads (x567). This, and the impressions of textiles found on artefacts not generally associated with clothing (e.g. scissors and knife (x3144, x3148) in grave HS, a spear (x2261) in grave TK and an arrowhead (x2359) in grave TZ), suggest that a blanket or similar was laid over the deceased. Skin/hide on artefacts in graves AT, IM and HS indicate that this was used to cover the deceased in these graves.

This systematic approach is also pronounced in the case of the pottery vessels, for example, the types involved and the frequent present of a complete set of vessels, which almost always stands in the eastern end of the grave.

These general guidelines are highlighted by the fact that, in the case of 196 graves, a disturbance was recorded – as a rule at the western end of the grave (cf. Lind 1991, p. 203ff). The presence of artefacts in these disturbances suggests that robbery was not the intention. As these disturbed graves are also found evenly distributed across the cemetery, they are interpreted as an indication of a symbolic act connected with abandonment of the cemetery. Evidence suggesting similar collective, symbolic

closure is also seen at other cemeteries: At Øster Tørslev, 12 graves were covered by a continuous layer of flint blocks,[2] and the small cemetery at Nørreknold was sealed by a layer of clay.[3] The disturbances left the graves with open pits, a conclusion supported by the discovery of ground beetles in a soil sample (Noe-Nygaard 1981). In the deepest part of the disturbance in 33 of the graves, alternating water-lain layers of fine sand/soil and gravel, 1–2 cm in thickness and with a total depth of up to 35 cm, were observed. With the exception of ZF and AEV, these graves are located in the southeastern part of grave group 2, where the ground surface had a slight slope. The graves also show a large chronological spread, so the phenomenon did not result from a special burial custom practised during a particular period.

These water-lain layers support the conclusion that all the disturbances took place at the same time. The layers are probably the result of water flowing down the slope during heavy rainfall, where it was caught by the open pits (Figure 16).

These general guidelines could, however, be deviated from. For example, a number of children and three adults, including a male–female pair, were buried in the settlement area (graves AEQ, AER and AQY) (Nielsen 1991, p. 116ff, 2000, p. 6, 13f). Separate male–female burials also occur elsewhere and do not appear to be conditioned by low social status (Brinch Madsen 1975, Ethelberg 1990, p.104). They probably reveal that these relationships had a special status in society. The complete set of pottery vessels in grave AQY demonstrates that, apart from the location, the general guidelines for burials were followed here.

Clusters

It seemed that, given the great degree of uniformity evident in the burial practices, there must be a structure inherent in the burials. The key to the cemetery's structure, and thereby an understanding of its development, appears to be differences in the relative position and orientation of the graves. Largely on this basis, a number of clusters were identified that are presumed to have developed concurrently (Figure 17).

Grave group 1 (Figure 18) is divided into six clusters: Cluster 12 on the basis of graves with an unusually high density and cluster 13 to some degree because it makes use of the space between two house sites from the Early Roman Iron Age. Both clusters are separated from centrally located cluster 14 by grave-free areas to the east and west. Grave-free zones perhaps reflect the existence of paths between the graves, something that must be considered as almost essential if the cemetery consisted of independent clusters. The lack of overlaps, marker stones and so on, also shows that existing graves were respected, and it seems unlikely that people walked in over the graves. The other clusters were also identified on the basis of grave-free areas running east–west, although these are narrower than the northernmost examples and, therefore, less certain. Grave group 2 (Figure 19) also has grave-free areas. Some of these take the form of tongues that extend in between the graves from the periphery, or of actual discrete areas within the site (e.g. at EO and PA). Finally, there are – often leading off from the aforementioned areas with no graves – in several places narrow belts indicating the existence of paths, as was the case in grave group 1. A total of 11 clusters have been identified in grave group 2. With respect to clusters 6 and 11, account has been taken of the fact that these comprise relatively large, deep and well-furnished graves. Exceptionally, there is thought to be a path here within the clusters.

It is striking that in the clusters in both grave groups there is often a single grave, usually located

Figure 16. Grave NT showing disturbance and possible marker stones. Photo: Jens N. Nielsen.

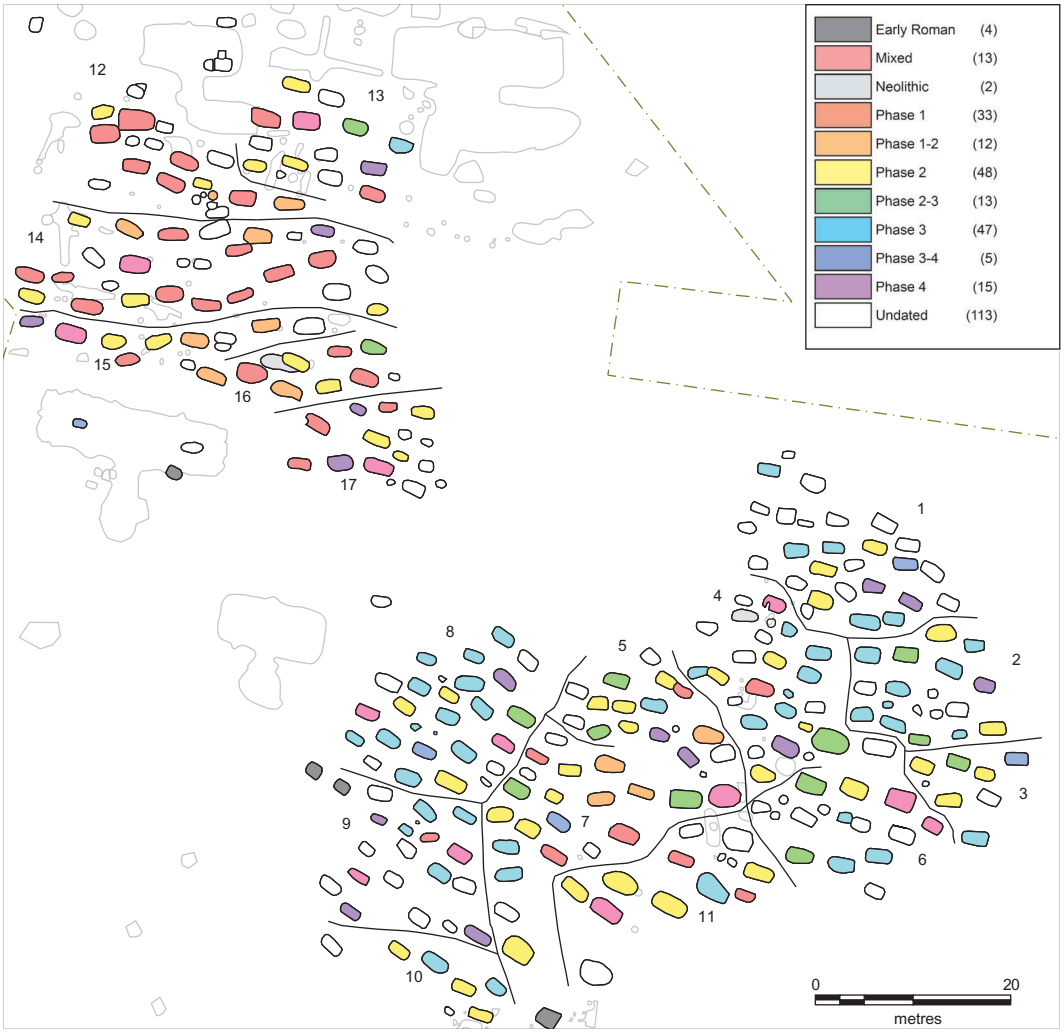

Figure 17. Plan of the cemetery at Sejlflod with dated graves and marking of clusters (for color image please see online article).

peripherally, with a grave-free area around it (e.g. graves S/R, T, BM, DP(?), IA, IK, KA, PA, SA, UM (?), VK, VO, VQ, ZL, AAZ; S/R are child graves, while the others are all graves of adults). This situation does not appear to be determined by gender or social class. Could it be the founder of the cluster who is marked in this way (Ethelberg 1990, p. 111)?

The graves are largely oriented east–west, but a closer analysis reveals the existence of some distinct groups (Figure 20). This analysis is based primarily on the orientation of the coffin, which sometimes deviates significantly from that of the actual grave (e.g. graves AI, FM, HP, HX, IG, PH). Due to considerable uncertainty with respect to their orientation, some graves have been omitted from the analysis (e.g. AT, DY, ET, IR, TK).

Graves oriented directly east–west are few in number and are evenly distributed, though with only a single example in the westernmost part of grave group 2. Graves in which the western end deviates to the south are found in particular in the central part of grave group 1, but are otherwise distributed across the cemetery. There is a certain coincidence with the earliest graves in grave group 1. It is also worthy of note that there are two graves in the central, and early, part of grave group 2, including grave IK. Most of the graves with a deviation to the south are of early date, but there are some exceptions (e.g. E, HS, PC).

Graves in which the western end deviates to the north are gathered together in groups. Deviations of 0–10° are found primarily in grave group 1 and in the eastern part of grave group 2. Deviations of 10–20 and 20–30° are fairly evenly distributed across the entire cemetery. Graves with a deviation of 30–45° are found in particular in the western part

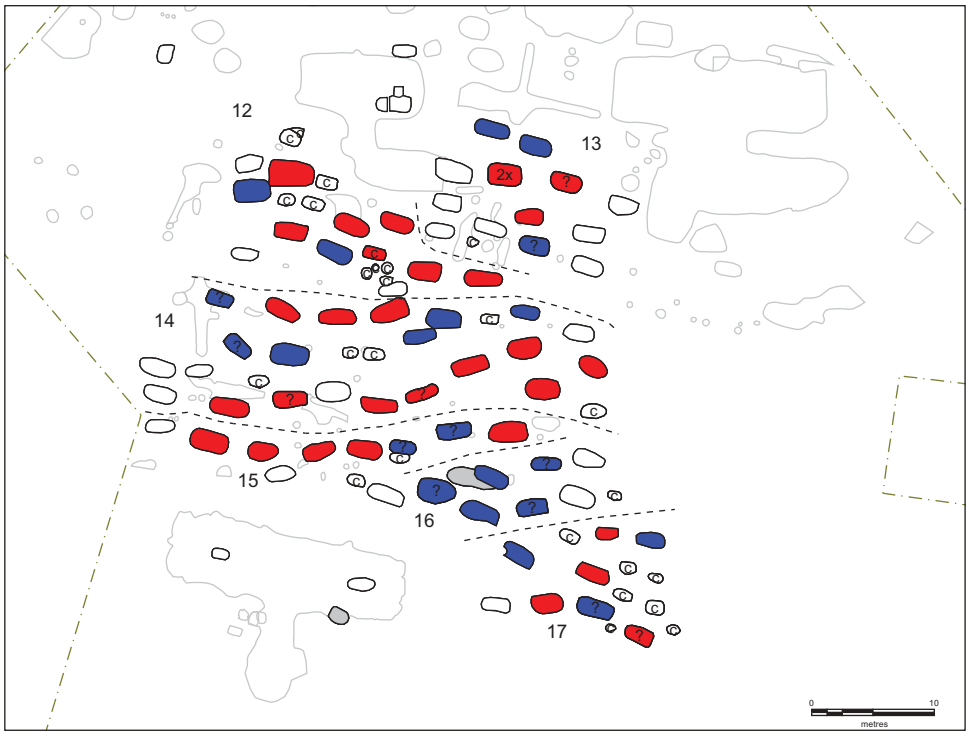

Figure 18. Plan of grave group 1 showing gender, child graves and marking of clusters. Red = female, blue = male, c = child, ? = uncertain identification (for color image please see online article). Earlier graves are shown in grey.

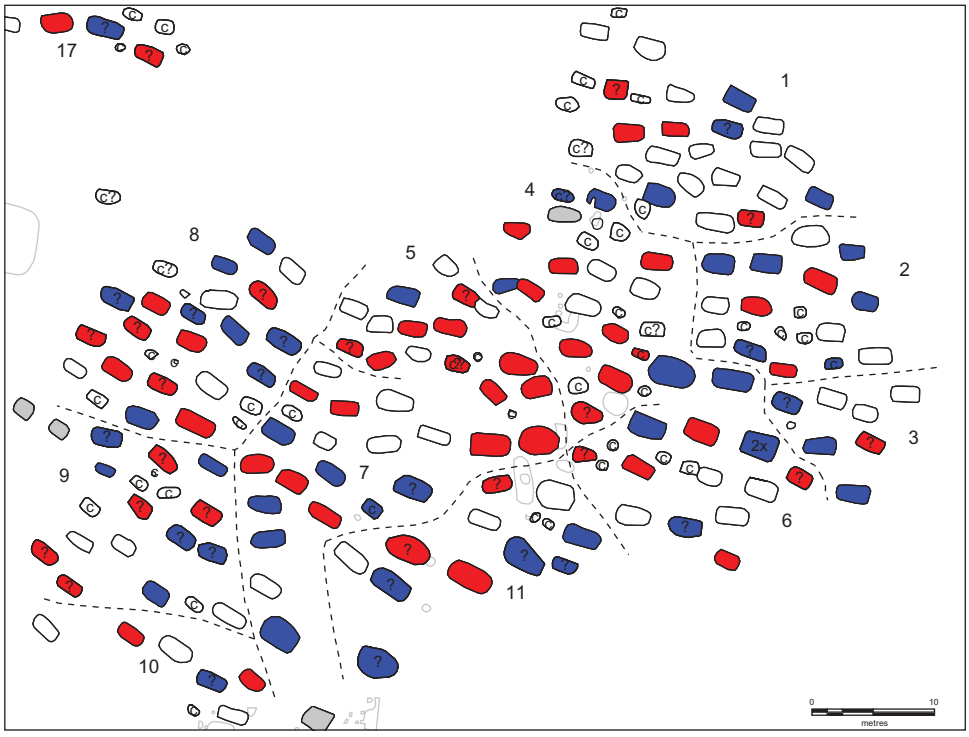

Figure 19. Plan of grave group 2 showing gender, child graves and marking of clusters. Red = female, blue = male, c = child, ? = uncertain identification (for color image please see online article). Earlier graves are shown in grey.

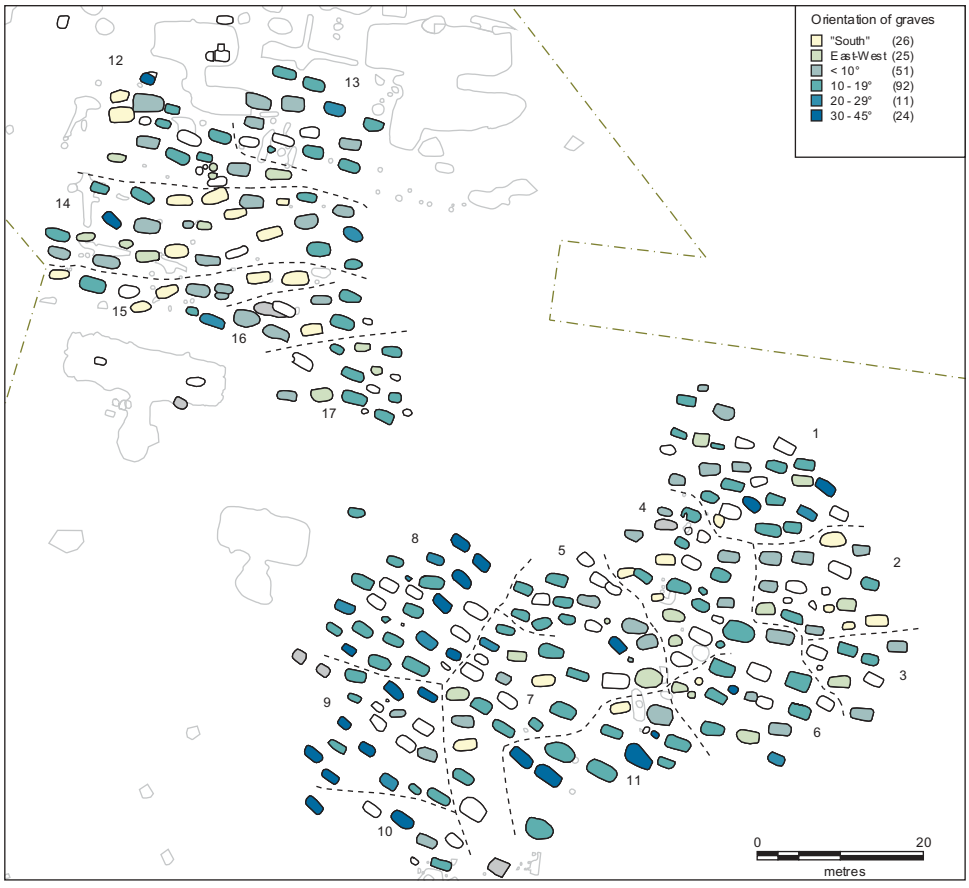

Figure 20. Plan of the cemetery showing the orientation of graves (coffin). Graves where the orientation is uncertain are not included (for colour image please see online article). Earlier graves are shown in grey.

of grave group 2. With one single exception, they occur only in phase 3 and 4 (grave HZ in phase 2; CX, ES, FK, IC in phase 3; EM, HC, NV in phase 4).

The graves are more or less evenly distributed by orientation across the entire cemetery which, together with a tendency for graves of the same orientation to be grouped together, tends to some degree to confirm the clusters that have been recognised. Herschend has pointed out that the orientation of the graves is probably chronologically determined (2009, p. 121).

Seen in relation to the number of graves, the cemetery's period of use and the structure of Iron Age society, it is assumed that the clusters represent the burial areas of specific families or farms. But is this conclusion consistent with the demographic and social structure of the cemetery?

In grave group 1, there are no female graves in cluster 16. Therefore, unless the non-gender-determined graves are those of women, this cluster should perhaps be amalgamated with cluster 15. All other clusters in the cemetery include the graves of men, women and children.

The distribution of the graves according to gender and age does not, therefore, contradict the identified clusters and their interpretation as family burial grounds.

An analysis of the size of the graves can give an indication of the social status of those interred. In this analysis, the depth of the graves is used rather than their length, because the depth was not – like length – dependent on the age of the deceased, but primarily on other factors (Figure 21).

The majority of graves are 10-–69 cm deep, while 46 graves exceed 70 cm in depth. Graves of different depths occur across the entire cemetery, but reasonably clear groups are evident, especially in grave group 2. This is also true of the deep graves which are, as a rule, well furnished (Ringtved 1988, p. 153ff, 1991, p. 59ff; Nielsen 2000).

Graves greater than 90 cm in depth form a small group around grave G in grave group 1. Other

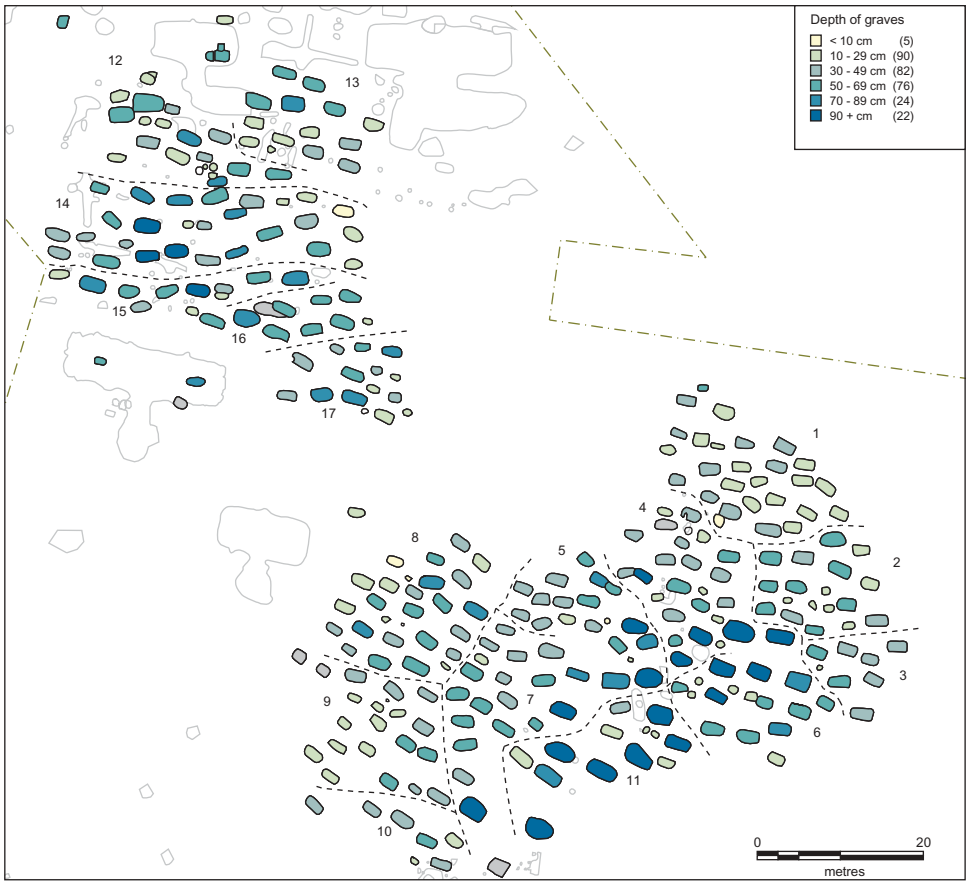

Figure 21. Plan of the cemetery showing the depth of graves (for colour image please see online article). Earlier graves are shown in grey.

graves in this area are also relatively deep (70–90 cm: graves A, C, K, M). A striking feature of grave group 2 is a zone of large, deep graves in its southern part (clusters 6 and 11). Their high social status is also apparent from the glass they contain (otherwise only found in grave A).

The presence of graves of different depths and small groups of the same depth within the identified clusters can, with some degree of reservation, be taken as indicating a hierarchical range among the deceased in most of the clusters. The depth and the various grave goods included also show that there are well-furnished graves in all clusters. There is also a tendency towards social differences between clusters, with relatively well-furnished graves being evident in clusters 6, 11 and 14. This perhaps shows that particularly affluent families were buried here, who possibly were the founders of the two grave groups, representing two lineages. The spread and distribution of graves according to social criteria does, to a certain extent, support the conclusion that the cemetery consists of clusters representing individual families.

The grave goods relate to gender, age and social status, but their distribution suggests that probably other factors also played a role. Axes only occur in grave group 1. The westernmost graves in grave group 2 contain only very few distaff whorls/hooks and no miniature pots. Conversely, clasps are relatively abundant here. Clasps of form 1 (with spiral wire) occur particularly in grave group 2, where there are no clasps of form 2 (small, with a rivet). These are, on the contrary, frequent in the northwest part of grave group 2. Finally, mention should be made of the fact that clasps located at the waist and ankles only occur in cluster 10, and cluster 1 has no graves that contain a complete set of pottery vessels.

These distributions perhaps provide an indication that traditions, occupational/economic circumstances, etc. associated with the individual families

were reflected in burial practices and can, therefore, be seen as evidence in support of the identified clusters.

Summary

A number of circumstances demonstrate that the graves were established and positioned according to some general, overarching guidelines, but also that these guidelines were, in some cases, deviated from. A horizontal stratigraphic development of the cemetery is not evident. Perhaps the two grave groups represent two lineages, as possibly expressed by the clusters of particularly well-furnished graves. On the basis of the structure of the cemetery and the orientation of the graves, a number of coeval clusters can be identified. These are assumed to represent families, and social differences can be traced between them. The identified clusters should not be considered as an absolute and certain result. The essential point is that the two grave groups are made of clusters of graves. To some degree, demographic and social circumstances support the definition of these clusters. There is a suggestion of paths running between and within the clusters, and isolated graves perhaps represent a founder – the first person interred in a cluster. The first graves occupy a central position in grave group 1, and shortly afterwards, early graves are established (phase 1) in both grave groups, around one or two graves surrounded by a grave-free zone. The abolition of the cemetery was probably marked by symbolic 'destruction' of all the graves.

From Early to Late Roman Iron Age

About 20 graves were found dating from the Early Roman Iron Age. These were found in two elongated areas: area A to the northwest and area B to the southeast. Undated graves could also date from the Early Roman Iron Age, for example, a small group of cremation graves to the east.

The graves of this period are clearly dissociated spatially from the settlement of the time. The graves lie scattered within areas A and B – either singly or in small groups (Figure 22).

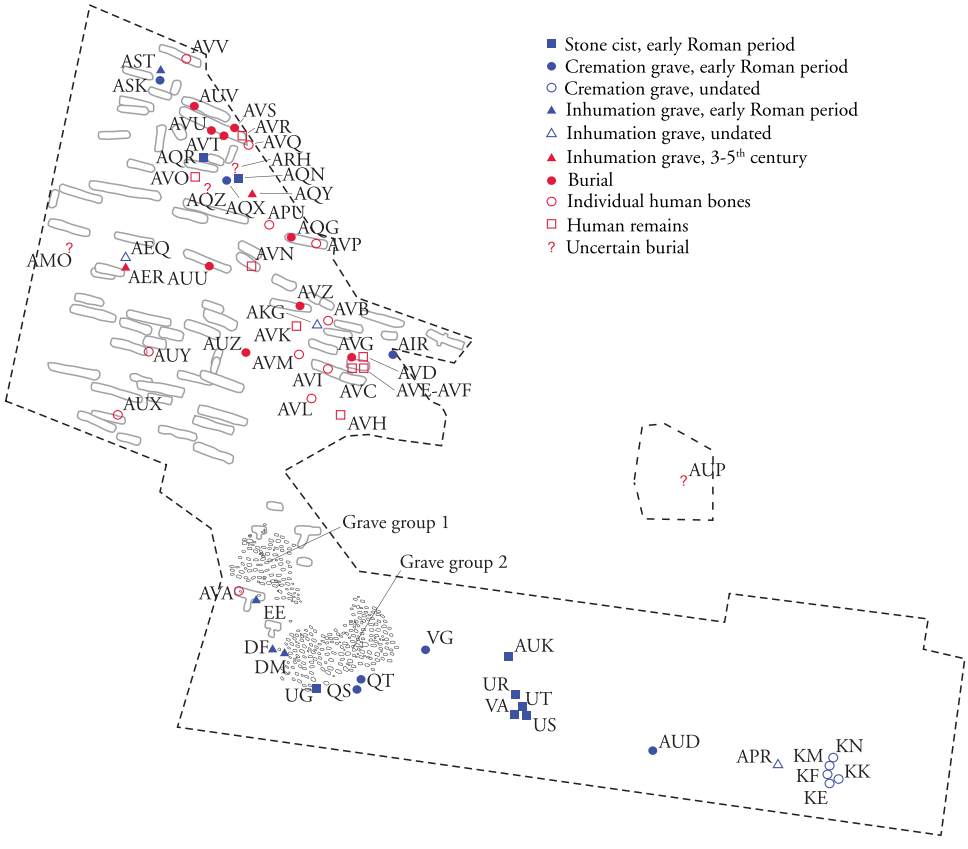

Figure 22. Plan of graves from the Early Roman Iron Age.

Burial practices were markedly different in the Early Roman Iron Age. The graves here comprise eight stone cist graves, four inhumation graves and seven cremation graves.

The stone cist graves show internal differences with respect to size and construction. Anthropological analyses of the bones and gender-specific artefacts show that men, women and children were interred here. Social differences are also apparent.

Scattered bones from several individuals in the grave fill and outside the graves bear witness to the fact that these graves were reused several times. This is true, for example, of graves UR and AST, which are special in having a small pit at their base containing the bones of several individuals: Uppermost stands a pottery vessel. These pits are interpreted as showing that a small number of bones from corpses removed from the grave were reburied. So there was still care of the dead, presumably because it was the same family that reused the grave.

The graves were – given the markers, obvious reuse, pits, etc. – probably an integrated part of village life. The two grave areas (A and B) were perhaps established next to two access roads leading into the village in order to signal that here lay the boundary to the actual village area. Or were they perhaps a consequence of two lineages marking their rights to land? The link between roads and graves has been seen in several other instances, for example, at Hjemsted (Ethelberg 1990, p. 10, 23, 99f; Thrane 2013).

The number of single graves and graves forming small groups corresponds approximately to the number of farmsteads in the village. It, therefore, seems likely that they represent burials of people from the individual farms. Perhaps they are the graves of the farms' leading figures who, in this way, marked their membership of the community. The well-furnished grave UR could represent the leader of the village.

With the establishment of grave groups 1 and 2 in the Late Roman Iron Age, both burial and building practices changed significantly. This could be due to other people taking over the area, but it seems more likely that the descendants of the inhabitants in the Early Roman Iron Age continued to use the area, possibly in combination with newcomers. There is, for example, a suggestion that some of the six to nine villages on the hill dating from the Early Roman Iron Age were abandoned (Nielsen 2000, p. 18f). There are also some aspects of the burial practices that continued:

There are two grave areas in both periods. Grave area B and grave group 2 even occupy the same area, and the respecting of graves from the Early Roman Iron Age suggests that grave group 2 is a continuation of grave area B. The graves in grave group 1 also respect earlier features and structures, such as house sites from the Pre-Roman Iron Age.

Perhaps the grave groups in the two areas in the Early Roman Iron Age correspond to the clusters in grave groups 1 and 2, but with the marked difference that now all the farmstead's adult inhabitants were buried in the clusters and not, as previously, only a few representatives of the family.

Comparative analysis

Are the chronological and structural circumstances at Sejlflod a special case or do they exist at other contemporaneous cemeteries? This question is extremely difficult to answer because the conditions and premises at other cemeteries are different: It is very rare that all the graves have been excavated (e.g. Lundegårde, see Johansen 2002, p. 186). Most cemeteries comprise fewer than 20 graves and even though some, such as Hjemsted, Enderupskov and Stenderup, have significantly larger numbers, the total is still less than a hundred (Ethelberg 1986, p. 13, 62 note 2, 1990, p. 95ff; Ringtved 1988, p. 181ff). Analyses are also made difficult by the fact that almost all the other cemeteries contain several types of graves (Øster Tørslev is an exception in that its 12 graves are all inhumation graves). A diversity of grave types is seen, for example, at three cemeteries located only 6 km from Sejlflod: Lundegårde, Sønder Tranders and Postgården (Ringtved 1988, p. 151ff; Johansen 2002; Nielsen 2008). Cremation graves often dominate and they are not especially suited to the analyses employed here. Finally, it should be mentioned that earlier investigations in particular can be of inferior quality and inadequate (e.g. Donbæk[4]).

The difficulties inherent in carrying out chronological and structural analyses like those undertaken at Sejlflod will be exemplified using one of the cemeteries located in the near vicinity (Sønder

Tranders) and two of the larger cemeteries in southern Jutland.

Sønder tranders

The cemetery, which has been delimited in all directions, contains 23 inhumation graves, one urn cremation grave and four mixed graves from the Early Germanic Iron Age that contain elements of both cremation and inhumation (Christiansen 2005). The graves appear to respect earlier house sites. The pits dug to accommodate the inhumation graves differ slightly in form. One inhumation grave is oriented north–south; the others, and the mixed graves, are oriented east–west or show minor deviations from this. Anthropological analyses, gender-specific artefacts and the size of the graves show the presence of female graves, a male grave and one or two child graves. Even though only one grave has been identified as that of a man, it can be assumed that the adult graves reflect the demographic situation in the settlement.

Several, albeit uncertain, groups emerge from an examination of the relative location and orientation of the graves. These comprise seven graves to the north, aligned approximately in a row, and spaced far apart with more or less the same orientation. To the southeast are five or six graves in a row, of which at least two are female burials. In the central part, there is a group of 9 or 10 closely spaced graves and to the east and west, respectively, are two isolated graves. Those to the west are a male grave and probably a child grave. The urn cremation grave also lies in isolation (Figure 23).

The mixed graves occur in particular in the group to the north, but are also present in the group of closely spaced graves.

There are no indications that particular sections of the population lie buried in the various areas. It is possible that, as at Sejlflod, there are family burial areas. Neither the individual groups, nor the site as a whole, display the same degree of systematic burial practices as is evident at Sejlflod, and the site must represent a significantly smaller settlement and/or a shorter period of use.

Hjemsted

Ethelberg believes that small burial grounds in Ringtved's southern group represent families or lineages and larger cemeteries, for example, Enderupskov, are viewed by him as a single unit or a conglomerate of family/lineage units, that is, the same in principle as at Sejlflod.

He believes that this is particularly evident at Hjemsted, where he interprets three cemeteries from the Late Roman Iron Age (I, II and IV) as family burial grounds (1990, p. 14, 95).

Using these as a model, he identifies two further cemeteries (V and VI) in a large group of graves. These are characterised by tending towards the formation of rows running east–west. Cemeteries II, I and V continue on from one another. The same is true of cemeteries IV and VI, which are contemporaneous with cemeteries II, I and V. The cemeteries are presumed to represent two families or lineages, a conclusion that, in the case of IV and VI, is supported by grave goods showing the same social stratum. At the transition to the Early Germanic Iron Age (AD 350–400), there was a reorganisation into larger common cemeteries in which the graves lie in north-south-oriented rows (III and IV). There were, however, still family/lineage cemeteries at the beginning of the Early Germanic Iron Age, as exemplified by V and graves 9713, 9733, 9737 (Ethelberg 1990, p. 89, 108). The two cemeteries are interpreted as being independent burial grounds, representing the two lineages or families from the earlier cemeteries. It is later pointed out that the major difference between the two cemeteries could be due to the presence of burial mounds from the Early Roman Iron Age, so that this actually represents the same common cemetery, but where two families each have their own department (Ethelberg 1990, p. 95ff).

Ethelberg presumes that when the graves lie in rows, as seen in I, II, IV, V and VI, it must be possible to some extent to observe a horizontal stratigraphy, given that the cemeteries are divided up into a male and a female section. He believes that there is a clear horizontal stratigraphy at cemeteries V and VI, a less well-defined one, one at I and II and an even more diffuse example at cemetery IV. No horizontal stratigraphy is evident at cemeteries III and VII (Ethelberg 1990, p. 95f, 99, 103, 108), and this appears to conflict with the fact that Ethelberg does not believe the cemeteries were segregated according to gender.

Ringtved does not consider V and VI to be independent cemeteries, but views these grave areas as concentrations to the west and east, as well as a few

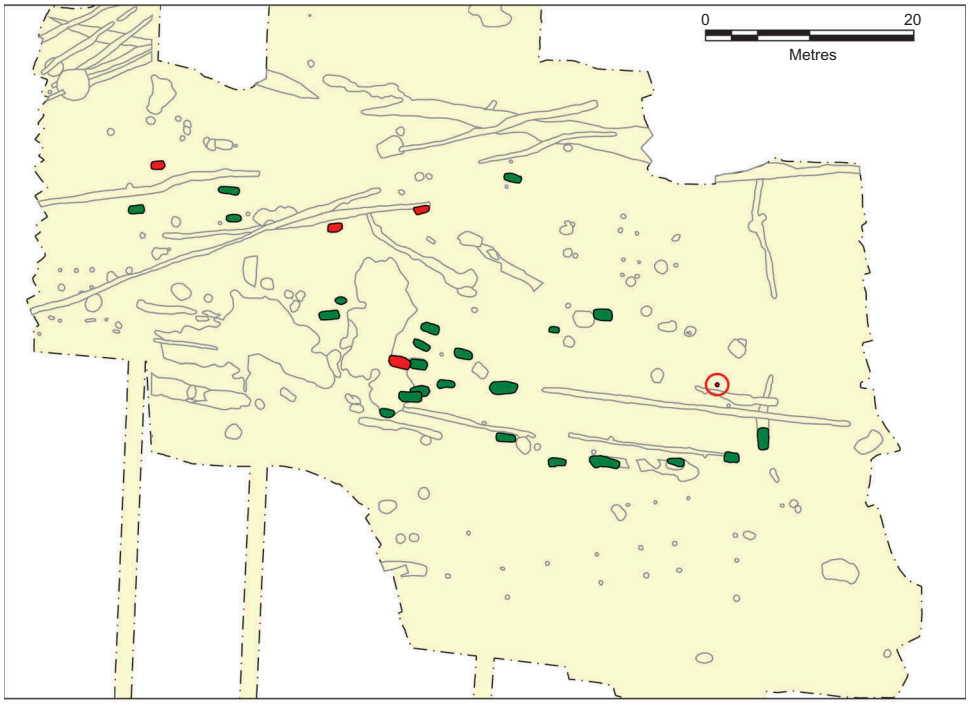

Figure 23. Plan of the cemetery at Sønder Tranders. Red = cremation burials, green = inhumation graves (for color image please see online article). Graphics: Torben Trier Christiansen.

scattered graves. She believes that the earliest graves (phase b and c) were established to the west according to gender and social status. In the Early Germanic Iron Age, when the graves were apparently more randomly positioned, graves were established towards the south and subsequently, or partly at the same time, the eastern concentration was established (Ringtved 1988, p. 189ff).

Ethelberg's identification of cemeteries V and VI, based on the arrangement of the graves in rows, as seen in I, II and IV, is problematic. It is self-contradictory to interpret III and IV as a common cemetery in which each family had its own section.

Perhaps, the rather more than 80 graves in III, V, VI and VII should be viewed as a cemetery that developed from west to east. Another possibility is that the graves to the west and east represent two family burial grounds, as possibly indicated by the orientation and spacing of the graves. Moreover, two graves to the east (118 and 295) are, according to Ringtved, from the Late Roman Iron Age, while Ethelberg dates grave 118 to the Early Germanic Iron Age (Ringtved 1988, p. 189; Ethelberg 1990, p. 88). This latter view is consistent with Ringtved's analysis.

Ethelberg's horizontal stratigraphy is often based on one or two of graves from each of the individual phases (e.g. II and VI) and must, therefore, be perceived as uncertain.

If there is a horizontal stratigraphy at (small) cemeteries, it is doubtful that the available chronological tools are sufficiently fine meshed and secure for this to be reliably demonstrated.

I consider it likely that more significant criteria operated with respect to the relative positioning of the graves, for example, male–female relationships, age, social status, status in the family/lineage and a chronological sequence.

Cemeteries I, II and IV must be seen as family burial grounds and III, V, VI and VII presumably comprise one or two of the same.

Enderupskov

Ringtved dates rather more than 60 inhumation graves to the Late Roman and Early Germanic Iron Age, and draws attention to the fact that the cemetery was probably not excavated in full (Ringtved 1988, p. 183). In the Late Roman Iron Age, she identifies a female section and a couple of male

graves to the north, as well as both a male and a female section to the south. Ethelberg does not believe this division to be real: When men and women were, as a rule, buried beside one another at Hjemsted IV, this was due to a marital relationship (Ethelberg 1990, p. 95f, 103). Ringtved believes there are some chronological tendencies, but states that the positioning of the graves appears disorganised and that it is difficult to speak of a horizontal stratigraphy. She sees no system in the location of the six graves from the Early Germanic Iron Age (Ringtved 1988, p. 183ff, 188).

Ethelberg highlights a tendency towards a clustering of the female graves. He does not believe this to be due to the cemetery being segregated according to gender, but that women of child-bearing age constituted a particularly vulnerable group. Ethelberg writes that clarification of the cemetery's structure requires more detailed analysis (1990, p. 14, 95f).

In addition to scattered single graves, there appear to be two grave clusters at Enderupskov. In both of these are graves dating from the Late Roman and Early Germanic Iron Age, containing the remains of both men and women and representing various social categories. There is, therefore, a certain similarity to the situations seen at Sejlflod and Hjemsted III and VII. Perhaps, these clusters represent two families, but the evidence base for this conclusion is fragile, not least because the site has not been excavated in full.

Conclusion

The lack of a general, overarching horizontal stratigraphy at Sejlflod is probably due to the fact that the cemetery consists of a number of contemporaneous clusters that relate to the families living in the village. Grave groups 1 and 2 possibly represent two lineages.

The graves were, to a very great extent, laid out according to a universal strategy which was, however, in some instances deviated from. The structure of the individual clusters was determined by for example male-female relationships, gender, age, social status and occupational/economic circumstances.

Even though grave and burial practices in the Early Roman Iron Age were markedly different from subsequent periods, it is considered likely that fundamentally there was continuation of the grave structure of this period.

The family unit probably also played a central role at other cemeteries, but this is as a rule difficult to demonstrate because a number of factors complicate the required analyses, as illustrated by the cemetery at Sønder Tranders.

It is thought unlikely that a horizontal stratigraphy exists at other contemporaneous cemeteries and that, even if this were the case, demonstrating this securely would be extremely problematic.

The chronology and structure of the Sejlflod cemetery reveal an exceptionally complex picture of the burials at the site. For example, the integrity of the individual grave can, in several cases, be contested or refuted. The same degree of complexity presumably also applies to other cemeteries but, as the above examples show, this is very difficult to resolve because virtually no other cemeteries have stringent, systematic burial practices or are of a size corresponding to that of Sejlflod.

Notes

1. Esbjerg Museum, archive no. 1421, grave GBS, (P. Siemen pers. comm)
2. NM protocol C 10062-80
3. ÅHM 2645
4. NM C 13705-29, C 14107-33, C 14466-503

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