Summaries

Ole Klindt-Jensen – A personal Sketch

By Søren H. Andersen

Ole Klindt-Jensen died on a beautiful summer day in June 1980. A natural focal point for all those who were daily at Moesgård was suddenly removed.

For nearly 20 years we had relied on Ole both as teacher and leader, who skilfully directed and when necessary solved problems for the rest of us. Now we felt lost, like people suddenly abandoned in the middle of a wide stream of traffic, who now have to make their own way to the other side.

The official speeches and obituaries just after Ole's death dealt well and characteristically with the course of his life and his academic achievements, so I do not propose to deal with those here. What I will briefly do is try to give a description of aspects of his personality and of his human qualities which I feel have to some extent been overlooked, but which I think had a great impact on his surroundings.

His fine qualities as a human being remain the best memorial to Ole. There were of course many sides to his character, but all in all he was »a fine person« in the true sense of those words. When one thinks of him, it is always words like *tact, sensitivity* and *regard* that first come to mind. As teacher, as leader, and as colleague he was friendly, open and obliging; never hurtful in neither action nor speech.

Ole was a good leader who paid attention to others. In his own particular way he had a characteristic dignity, which usually enabled him to achieve his ends – not always through particularly good arguments, but rather through force of personality. He never manipulated people or ordered them about; he listened, recommended, advised and helped. Ole was never jealous or petty, the complete situation was more important than personalities.

He was largely unknown to the small group of students at Moesgård when he arrived as professor in the early 1960s. We were a little nervous about the style of the new professor, but at the same time open and expectant. The students quickly became used to his rather »informal« style of lecturing – he often used notes jotted down on the back of an envelope, or (in the first year) on a napkin, testifying to breakfast on the overnight ferry from Copenhagen to Århus.

He was not a good teacher, if one measures this in terms of the drumming in of a large number of facts; what he achieved was the outlining of ideas, and seeing connections in new and (to the students) surprising ways.

As professor and teacher Ole had his own unique style, which the students had to »get used to«. Enthusiastic and inspiring, he would use his enormous local and international knowledge to demonstrate and explain aspects of culture history which other archaeologists usually baulked at or of which they were incapable; this would often be spiced with interesting anecdotes, and illustrated in ways and from viewpoints that were absolutely not the archaeological norm.

As leader Ole was friendly and obliging, and always had the time to listen to what people had to say. He encouraged them, and helped where he could – frequently the problems had to do with money, and people hardly ever left his office empty-handed; he was always able to find a solution.

He was a cheerful person. This was a side of him one got to know on excavations, in more private situations, and on the excursions where his lively and sometimes even bizarre contributions came out most clearly. None of his students will ever forget the major trips abroad, which were a remarkable combination of the purely academic with elements (particularly gastronomic ones) more associated with tourism. Everyone quickly got into the spirit of these trips, and nobody was really sure whether the objects of the expeditions were archaeological or culinary.

Ole's name is indissolubly linked with Moesgård. The institution at Moesgård is at once his greatest achievement and his memorial. The idea came from others, but the enormous amount of work that went into the establishment and subsequent development of the place was largely Ole's. He worked hard and tirelessly through the 1960s and 1970s and succeeded in creating a many-sided archaeological and ethnological milieu, a research and teaching centre with many outside connections. It is true that times were not as hard as they are now, but without his continuous work this institution would never have become what it is today.

Time passes quickly. Four years have gone by, and there are now many at Moesgård, both among the staff and students, who never met Ole. But he remains clear to the rest of us. Who does not remember the characteristic laugh, the rapid, slightly nervous running of his right hand through his hair when he was tense, or the rising tones, unmistakeably from Bornholm, when the discussion became animated?

He is dead – but his work lives, the results of his research, and the institute that he built. And with it lives on the memory of a fine and unconventional personality.

Status of the Iron Age on Funen

By Jørgen A. Jacobsen

E. Albrectsen summarized the iron age on Funen in several surveys, the latest in 1971. In many ways, the material now available differs markedly from the early 1970s because of the Conservation of Nature Act, systematic survey projects, and the examination of extensive areas by means of machinery. The aim of the present paper is to evaluate how far the increase in material during the last decade has altered or solved iron age problems stated in earlier surveys.

Finds from the earliest iron age are still very rare, comprising only 5 settlements. The scarcity of finds is discussed, and an explanation proposed based on the erroneous dating of the local pottery.

Subsequent periods (II and III) of the pre-Roman iron age are on the other hand represented by considerable quantities of finds, falling into new categories like houseplans, evidence of local iron procurement, and signs of fortification.

Excavations of early Roman iron age settlements have yielded the first traces of village-type settlement, houseplans being of the type well-known from Jutland, and have provided the first possibility of studying the demography of a Roman iron age settlement by means of the nearby cemetery.

Finds from the later Roman iron age have shown only a modest increase, but the ratio between settlements and cemeteries now tends towards a closer balance (probably because of more intensive and systematic methods of investigation). As a hitherto unknown category from this period, five pit-houses have been excavated.

Regional survey projects carried out during the last decade have demonstrated that settlements have a marked affinity to the boundaries between arable areas and extensive meadows.

The finds from the period 400-800 AD still follow the pattern of single finds of precious metals and a negligible number of graves being the only finds known from the period. The lack of settlement evidence might be explained by erroneous dating of the pottery sequence, but for Funen this seems less likely than reduced likelihood of visibility on the ground surface, caused by changed methods of cultivation probably introduced during the late Roman iron age. A recent pollen analysis from S.W. Funen seems to prove continuous cultivation during the Germanic iron age.

Investigations during the past 10 years have made many contributions to the solution of a number of iron age problems specific to the island of Funen. Our knowledge of settlements, building types, site configuration and topographic preferences has been greatly extended. An effort must still be made, however, to solve the remaining questions. This will involve both a problem-oriented excavation policy and the re-examination of data and material already available.

Cultural Connections in the late Pre-Roman Iron Age
A methodical Investigation

By Ingrid Falktoft Andersen

An analysis based on a numerical description and treatment of fibulae in the central Celtic and the Germanic region has been shown to be applicable to the study of cultural connections, since the results by and large confirm the traditional picture of cultural

connections during the late La Tène period/pre-Roman iron age. Comparisons of fibulae from different regions, based either on a typological classification or directly on the numerical description of the fibulae, were in general agreement but a few marked differences warn against too detailed an interpretation of the cultural patterns emerging from the analysis. The analysis based directly on the description of the fibulae is for several reasons the more trustworthy one.

The representativity of results of this type of analysis has been investigated further in a more detailed and comprehensive analysis for the northern Germanic region. The results on the one hand warn against too far reaching conclusions from analyses confined to a specific type of artifact since the cultural pattern emerging from the analysis of fibulae, although representative for related articles of personal adornment, is distinctly different from the pattern emerging from an analysis of weapons and utensils. Comparison of these classes of artifacts shows strong connections in particular between subregions of the two major cultural regions, an east-Scandinavian-north-Polish and a west-Scandinavian-north-German region, which appear from similarities in more stable cultural elements, ceramics, burial types and burial customs, while similarities of the articles of adornment cut across this division.

On the other hand, this result is in itself of interest and indicates the possibility of discovering essential features of cultural connections with the methods of analysis investigated here. That weapons, ceramics and burial types are elements, which are assimilated at a later stage of cultural contact than articles of adornment is not an unknown phenomenon in cultural history. It is for example illustrated by the relations between the Celtic and Germanic cultures. Fibulae with ball ornamentation became common in the Germanic regions already during period II while, e.g., wheelmade ceramics and weapon burials were transmitted later, in period III, after the establishment of a more intimate contact through the Germanic expansion towards the South.

A new Village Mound from the Early Iron Age at Heltborg, Thy

By Jens-Henrik Bech

The region of Thy in the north-western part of Jutland is very rich in settlements of the Early Iron Age. Here we find the so-called settlement or village mounds – settlements characterized by massive culture layers, sometimes more than two metres thick. Beginning with excavations at the site of Ginnerup in the 1920's and the 1930's, work has continued throughout the years at other sites, of which Hurup, Vestervig and Tåbel are the most important.

The formation of the settlement mounds is due to a combination of two factors – a very stable settlement pattern with continous occupation of the same sites for more than 300 years, and a house-building technique involving walls of turf about one metre thick. Every time a house was demolished, the thick turf-built walls were levelled out, thereby greatly accelerating the growth of the culture layers.

At Heltborg in the southern part of Thy, a small part of a village mound with a culture layer up to one metre thick was excavated in 1981 and 1982, due to the planned construction of a new road, which would cut right through the settlement. This article is a preliminary account of the results of the excavation.

The village mound of Heltborg is situated in the southeastern part of Thy, only 1.8 km from Hurup and 2 km from Ginnerup. The settlement covers an area of 325 x 125 m on top of a hill facing a small river valley.

Within the limits of the excavated area, which was about 1600 m^2, 27 houses were uncovered, completely or in part. One house dates from the Late Bronze Age, thus representing the oldest occupation of the site. After a period without finds, the Iron Age settlement begins at around 100-150 B.C. in the period IIIa of the Pre-Roman Iron Age, continuing throughout the late Pre-Roman and the Early Roman Iron Age. Only two houses date from the Late Roman or the Early Germanic Iron Age. The scarcity of finds from the third and fourth century A.D. is probably due to the destruction of the upper part of the culture layer by modern cultivation.

A selection of the pottery finds that form the basis for the datings is seen in figs. 4 and 7. Fig. 4 dates from the Late Bronze Age, fig. 7a-d from period IIIa and fig. 7e-f from period IIIb of the Pre-Roman Iron Age, fig. 7g-h from the Early Roman Iron Age, fig. 7k from the Early Germanic Iron Age, and finally fig. 7i from the Late Roman or the Early Germanic Iron Age.

At the present time, the oldest phase of the settlement, from period IIIa of the Pre-Roman Iron Age, is the best illustrated (figs. 5 and 6). The houses 3, 4, and 5 are the most important, together forming a small farmstead with the houses grouped around a court-

yard paved with stones and gravel. House 4 is a long-house with dwelling quarters at the west end and a byre at the east end of the house. To the south of house 4, placed on either side of the courtyard, are houses 3 and 5. In the earthern floor of the small and square house 5 several hearths were found, one having probably replaced the other during the course of time. Considering its clear connection with the long-house and its modest size, house 5 must be regarded as a work area and not as a regular dwelling-house. The smallest of the houses, house 3, never had a hearth and was probably used as a tool-shed.

The farmstead at Heltborg is the first that has been documented with any certainty in Thy, but it is very similar to farms found at the settlements of Hodde and Vorbasse in West Jutland. A number of small houses similar to house 5 have previously been found in the settlement mounds of Thy, and have often been interpreted as dwelling-houses. Based on the results from Heltborg, it is suggested that instead they were probably used for work being part of regular farmsteads. However, among the houses of Heltborg we also find smaller houses, with an inside length of 6.5-8.4 m, which judging from their plans, must be viewed as independent economic entities, some of them possibly with a small byre (fig. 9 houses 13 and 21). That major occupational differences have existed between the settlement mounds of the different parts of southern Thy, as has previously been suggested, is doubtful. At any rate, a comparison between the dimensions of the houses at Heltborg, Hurup and Vestervig provides no basis for conclusions of this sort (fig. 8 C-E). It is clear, however, that the settlement mounds differ in size and complexity, ranging from large settlements at least 125 m across to smaller elevations with a culture layer covering around 50 x 50 m or less. Without doubt, the smallest mounds have contained only a single farm. When employing the term "village mounds", which is a rendering with modification of the Danish *byhøj*, one runs into a terminological problem, since the Iron Age settlement at several localities manifests itself as a whole complex of small eminences, which must together have formed a village. I have here confined the application of the term to a discrete eminence with the remains of a whole village: thus it cannot be applied without ambiguity either to a complex of small mounds or to the individual mounds making up such a complex, to both of which the general term "settlement mounds" has been applied. *Settlement mound* is thus the general term and *village mound* more specific, to be employed only when more detailed study has revealed the nature of a settlement mound as it has been demonstrated for example at Hurup and Heltborg.

A more extensive account of the excavation at Heltborg will be published in Journal of Danish Archaeology, vol. 3, 1985.

Sunken Houses and Cellars from the Earlier Iron Age

By Jørgen Lund

In the late 1960s Professor Ole Klindt-Jensen took the initiative of arranging a more systematic programme of aerial photography for Jutland in particular. The experienced researcher Professor J.K. St. Joseph of Cambridge University undertook the practical side. Results were not slow in appearing, and a large number of new settlements was located (figs. 2, 5, 9 and 10). Among these were several near the eastern part of the Limfjord. They were characterised by large, rectangular features, which turned out to be sunken houses. These, together with stone-lined and timber-built cellars, are feature types underlining the particular nature of north Jutland in the earlier Iron Age.

The introduction presents the 16 sites with such features. The total number of sunken houses is now around 56-60 from 6 settlements; 23 stone-lined cellars are known from 9 sites, and 5 timber-built ones from 3 sites (fig. 1).

The houses are characterized by having the entire floor dug down into the subsoil. The depth varies from 30-40 cm up to 2 m. The mode of construction is presumably what causes the entrances and wall construction of these buildings to differ from those of contemporary surface houses. The entrance is always roughly central in the southern long side, takes the form of a type of chute, and is often flanked by postholes or foundation trenches (figs. 4 and 6). Unique are the deep, covered holes found in front of the doors of the phase 1 houses at Overbygård. Their purpose is unknown. The walls consist of closely spaced posts or planks, forming earth-backed plank walls. In the narrow house pits it was not possible to construct a solid wattle-and-daub wall. Otherwise the sunken houses correspond completely to those above ground; they are three-aisled, with living quarters in the west and stalling in the east, and at Overbygård the farms from the early pre-Roman iron age are of the sort known from (e.g.) Hodde.

But why should structures be dug down like this? No complete answer can be given. Differences in economy would not determine

the building type. The method does not save timber, and it involves a lot of labour. The excavated sand from the 10 farms at Overbygård can be calculated to have filled 7-800 m^3. Thermal insulation might be a factor, but then why is the method not more widely known in this part of the country? Normal surface houses are much more common. Parallels are not known; the small houses with sunken floors, common in both Poland and the Celtic regions, are so different that no connections can be drawn. The building method is therefore thought to have arisen locally, and it can be followed through the whole of the pre-Roman iron age (Sejlflod) and into the middle of the earlier Roman iron age (Overbygård, Sejlflod, Egebjerg).

The cellars are divided into two main types: stone-lined and timberbuilt (fig. 21). The latter are large and easy of access, and are regarded as true storage rooms. The function of the stone-lined ones is however still a problem. There are three different types: simple cellars with passage and closed chamber (type a, fig. 19); cellars with both passage and ventilation shaft (type b, fig. 14); and more complicated installations with chamber, passage and water channel – these usually lie close to streams (type c, fig. 12). Type c is rare and will not be further discussed here. The stone-lined cellars are generally small, 2-3 m^2 in size, and usually show no traces of any other construction, which might suggest light or removable top covers. Once again there is the question of why they were built. Why should they be preferable to normal surface constructions? One suggestive fact is that the temperature inside them remains more or less constant.

All stone-lined cellars (except type c) are found on sites with settlement remains, and there is no reason to doubt that they form part of the settlements. The cellars must be regarded as an integrated part of the buildings of the villages. But what function could they have had? Type a, which would have been easy to cover, is suggested to have been used for storing the vital seed corn. This type is known from both coastal and interior areas of Vendsyssel. Cellars of type b one the other hand are found on settlements near the present coast, and are therefore suggested to have been for storing fish products (fig. 24). But the sample is still very small, and further excavation is needed if their significance and function is to be better understood.

There are no parallels to the cellars outside the British Isles, but it is difficult to demonstrate any connection across the North Sea. The rest of the cultural material from the end of the pre-Roman iron age has much closer connections with the continent of Europe and with the rest of Scandinavia. Against this background, the cellars must be seen as of local origin and development. They were in use for a very short time (fig. 25), and were built at a time when society was undergoing major changes (the appearance of "high-rank" farms, increased contact with the continent, the appearance of weapon graves etc). It is suggested that it was the dynamism of a rather disturbed society that led to the construction of the stone-lined cellars. The fact that they largely only appear in Vendsyssel could be because this part of the country was the meeting place of many impulses and ideas, both from the south and the east, so social discontinuity may have been greatest here.

Although the three types of construction have a limited distribution and are partly contemporary, no direct connection is seen between them. Only on two settlements (Overbygård and Grønhedens Mark, figs. 3 and 16) is more than one type represented, and they are probably not contemporary.

Iron Age Settlement at Sarup

By Niels H. Andersen

Since 1971 an area of 6 ha has been excavated at Sarup in southwestern Funen, the main aim being to examine a neolithic causewayed camp. The investigations also revealed traces of settlement in other periods, including a village from period II of the pre-Roman iron age. 6 or possibly 7 houses (figs 1 and 2) were discovered on the flat, central part of the sandy promontory of Sarup (fig. 1). The houses were separated by distances of from 16 to 75 m, they were oriented WNW – ESE, and their lengths varied from 13 to 22 m. Each had two doors, placed opposite each other in the middles of the houses' long sides. Traces of stalling were found in the eastern ends of two of the houses, showing that animals (about 14) were kept there. Domestic occupation was presumably in the western end. The houses are similar to the contemporary ones at the Grøntofte A settlement. On the western slope of the site a defensive ditch was excavated (fig. 1), measuring 85 m in length, 1.6 m wide and 0.6-0.8 m deep, and flatbottomed (fig. 6). Finds in this ditch (fig. 7) date it to the same period as the houses. 26 cooking pits (fig. 8) and 14 rubbish pits are contemporary with the houses and the defensive ditch, all lying in the area around the houses (fig. 1). About 350 m due north of the northernmost house is a rise in the ground, where

sherds and burnt bones from some cremation graves have been ploughed up. These are contemporary with the village – perhaps this is the village's cemetery. The Sarup village covered about 3.5 ha, consisted of about 6-7 farm units, and had stall space for about 100 animals. The village seems to be part of a mobile village, traces of which can be followed at Sarup from the late bronze age until about the early Roman iron age, but the greatest size of the village seems to have been reached in the pre-Roman iron age period II.

Bronze Casting in the Pre-Roman Iron Age at Vitved, East Jutland

By Søren H. Andersen

In 1975 a pit measuring 5 x 1.8-2.7 m and 1.5 m deep was found just south of Stilling Lake in east Jutland (fig. 1-2). It lies in an area of fine Tertiary quartz sand (from the Miocene, about 15 million years old), close to the surface, and was presumably dug originally to exploit this sand. The pit was later filled with cultural deposits, potsherds, stones, and debris from bronze casting.

The sherds come from about 42 pots and 9 larger vessels (figs. 3-9). A few pieces of iron slag, a polishing stone, a hammer stone, casting crucibles and fragments of moulds were also found. The pottery dates the find to the pre-Roman iron age period I, about 500-300 BC.

Crucibles: Remains of about 8-10 crucibles were found, of which 3 are virtually complete (figs. 10-13). They are all of the same type and size, and are made of »fire-resistant« clay with a high sand content. Length is about 9-10 cm, breadth about 6 cm and height about 5 cm (cf. figs. 10-11). The bowls themselves are grey, while the spouts are usually burnt red. On the outsides of the crucibles is an extra layer of clay containing sand, which also covered the opening (figs. 10-13). This layer of clay shows clear signs of having been exposed to great heat, being grey-green and glazed, especially on the bowl of the crucible. Cubic capacity of the crucibles is calculated at around 25-40 cm^3.

Although the outer ends of the spouts are broken off (figs. 10-13), they seem to have been closed at their outermost ends. Fragments of conical clay tubes were found (figs. 14-15), which are probably the outer ends of the crucible spouts. Fig. 16 shows a reconstruction of a crucible.

Analysis of the crucibles show that they are made of local clay mixed with the fine quartz sand from the find area. They are thus locally made using available raw materials.

A small *cup* made of the same sandy clay as the crucibles was also found (fig. 19). Several fragments of moulds were also found (figs. 20-22). These are also made of sandy clay, and must have been used for casting small objects such as pins or jewellery.

X-ray flourescense analysis of the crucibles shows clear traces of bronze. Analysis of the slag from the pit reveals it to be iron slag. Vitved is thus an example of both local bronze casting and iron production in the earliest part of the pre-Roman iron age, period I.

The moulds from Vitved are the first find of this type from the earlier iron age in Denmark. Finds of bronze casting workshops are known from several places in the later bronze age, but finds have hitherto been totally lacking from the iron age. Apart from Vitved, only one single fragment of a crucible is known, from the settlement at Klattrup, southwest of Vejle (unpublished) (fig. 18). This find, dating from the 1st century AD, is so far the only parallel to Vitved. The closest contemporary parallel is from Nieder-Neundorf in East Germany (fig. 23), where evidence of casting was found including some very similar crucibles. Nieder-Neundorf is referred to the local Billendorf Group, which is contemporary with period I of the Danish pre-Roman iron age.

The total find material from this period in the Skanderborg region shows a high settlement density in the earliest iron age. Major settlements are known, such as Ris-Tebstrup, Sdr. Vissing, and Bruneborg (with iron procurement), as well as large votive offerings of finger rings at Falling, Smederup and Sattrup, and also "bog pots". Grave finds are on the other hand not known.

During excavation a large area around the pit was uncovered, but no other finds were made. The presence of typical settlement refuse in the pit shows that the metal working took place in a domestic context, but exactly how is not known. The contents and stratigraphy of the pit, and the fact that the crucibles and moulds lay grouped into small concentrations, argue that smalting and casting was not very common and/or frequently undertaken at the time the pit was open. The impression is rather gained of a single or a few periods of activity on the site. The contents of the pit are presumably the remains of "clearing up" after casting.

If the Vitved area had been a major east Jutland metal producing centre, then one might have expected that a series of rich settlements or graves might have been found in the area dating to this period. This is not the case. Neither the settlements nor the graves

and votive finds from east Jutland at this time suggest a production centre, or economic or social power concentration. All in all the finds suggest small communities engaged in the occasional production of iron and bronze for local use.

Cairns in Fields

By Palle Eriksen

An ancient field system lies in Thorskoven wood south of Århus. This contains seven cairns (fig. 1), of which two – cairns I and II – have been excavated.

Cairn I lay on a low natural hill (fig. 2). It was circular, with a diameter of 8 m (fig. 3), and consisted of a single layer of stones surrounded by three rings of kerbstones (fig. 4). Immediately under the stone layer were 8 cremations: 4 in urns, and 4 in the form of burnt patches. In the fill above the stone layer and outside the cairn, 253 pieces of flint waste and cores were collected. The centre of the cairn was disturbed, 2 graves being destroyed. Two fragments of bronze rings (fig. 6) probably derive from these destroyed graves.

Cairn II lay on the top of one of the highest hills in the field system. This cairn was circular, with a diameter of 9 m, and consisted of a single layer of stones surrounded by two rings of kerbstones. Beside the cairn was a cobbled area (fig. 7). In the cairn and the cobbled area were two burnt patches and two urn cremations, but other graves could have been destroyed. Flint was found of the same type as associated with cairn I, and in the soil above the cobbled area was a fragment of a powerful blade (fig. 9a).

Some of the pots – pots 2 and 7 from cairn I (fig. 5 b and f) and pots e and f from cairn II (fig. 8 e and f) – can be dated to period VI of the bronze age. Other pots – pot 8 from cairn I (fig. 5 g) and pots a, c and d from cairn II and the cobbled area (fig. 8 a, c, d) – date from period I of the pre-Roman iron age. Thus the cairns were established in the later part of the late bronze age, and continued as funerary sites into the early iron age.

The two cairns lie together with 5 others on natural rises in the ground in the field system. They were not destroyed in ancient times because of the respect the early farmers had for the graves. It is thus probable that the cairns are contemporary with the field system. Finds of querns in the cairns and blades with sickle gloss (fig. 9) are added evidence for an agricultural economy in the later late bronze age.

The 7 cairns do not lie together in a group, so that each one might have been the cemetery for a particular farm in the village. The average holding per farm was 9.5 ha, as the entire preserved field system consists of 32 ha. Dutch and Swedish investigations suggest that an iron age farm would have needed 2.2-3.6 ha, exclusive of field boundaries and fallow fields. Within the Thorskov system the cultivated area was less than 32 ha, as a large proportion of the area was taken up with field boundaries etc.

An Urn Cremation with an Iron Fibula from Markvænget, Parish of Aars, Western Himmerland (Jutland)

By Mogens Hansen

An urn cremation was found in an iron age village, excavated in 1979 for the Museum of West Himmerland in Aars. Four houses (I-IV) were found on the site, dating from either the late bronze age or the early pre-Roman iron age. They were covered by shifting sand, into which a house (V) was dug during period IIIa of the late pre-Roman iron age. Over this was another layer of shifting sand, into which was dug a house (VI) dating from the early Roman iron age, and also the urn cremation.

The cremation consisted of an urn (fig. 4a) containing burnt human bones and an iron fibula. Next to the urn was a cup (fig. 4b) and parts of a small vessel (fig. 4c). The fibula is a swayed fibula of late La Tène outline with an inner cross thread (Kostrzewski type N). It is made of iron with small inlaid bronze threads on each side of the bow.

In north Germany the fibula can be dated to the late pre-Roman iron age, or to the 1st century AD. The dating of the fibula type in Denmark is discussed, the conclusion being that the most likely dating will be the early Roman iron age.

The question is raised of the existence of burial sites in Himmerland, and their relations to the actual settlements of the early iron age – but more research is needed before this problem can be thoroughly examined.

A 2000 Year old Grave of a Woman from Tobøl on the Kongeå River

By Stig Jensen and Helge Brinch Madsen

The Antiquarian Collection in Ribe excavated an early iron age urn near the Kongeå River, northeast of Ribe, in June 1982 (fig. 1). It was found in the course of laying electrical cables, and contained the burnt bones of a 20 to 40 year old woman, together with a few bones of sheep or goat.

The grave goods, all of which were found within the urn (fig. 2), consisted of the following: a clay cup (fig. 3), an iron fibula of Kostrzewski type M (fig. 4), an ornamented iron knife (fig. 5), a needle in a bone sheath (fig. 6) and an unidentified iron object (fig. 7). The nearest parallels to the grave are those from the large women's cemetery at Hornbek in Holstein, and can be dated to about the time of the birth of Christ.

The Tobøl grave is located on a terrace overlooking the wide valley of the Kongeå River (fig. 1), being one of a number of finds pertaining to settlement round the margin of the valley, which exploited the valley for grazing and the terraces for cultivation.

Danish Ball Fibulae

By Jesper Laursen

This article discusses an examination of the chronology and distribution of Danish ball fibulae. They are divided into fibulae of middle La Tene type (group I: figs. 1-3), and cast fibulae (group II). The latter were subdivided into type 1 fibulae with a simple wireformed foot (fig. 4), and types 2 and 3 with profiled cylindrical or conical foot terminating with (type 2) or without (type 3) and upper disc or collar (figs. 5-8 and 9-12 respectively), and type 4 fibulae with a pointed or globular foot termination (figs. 14-15).

The ball fibulae are as a whole dated to period III a of the pre-Roman iron age, presumably mainly its early part. The dating is among other things based on some new graves with pottery (figs. 8-9 and 12-13).

Almost every fibula type has a specific main distribution limited to certain parts of the country (fig. 16), probably corresponding to the regional divisions of the period.

The Double Yoke from Bredmose, Fjends Herred, N.W. Jutland

By John Simonsen

A well preserved double-yoke (fig. 1 and 2) was found in 1948 during peat cutting in a small bog "Bredmose" (Lundgaardshede) near Skive in the north western part of Jutland. The yoke is made of maple wood. Length is 127 centimeters.

In use the yoke was placed on the nape of the neck of two draught-animals and tied around the neck probably by means of leather straps, as indicated by preserved pieces (fig. 3).

The shape of the double yoke is strictly symmetrical and from the middle it could be connected with for instance a cart.

It has been radiocarbon dated by the National Museum in Copenhagen. The result was 330 BC ± 100 before 1950.

It is argued that from the La Tène finds in Switzerland one of the double yokes published by P. Vouga (fig. 4) is especially comparable to the Bredmose specimen. Several details from the two double-yokes seem almost identical.

The bronzemountings from Maloměřice in Czechoslovakia (fig. 5) are also mentioned. Quite different from the view of K. Hucke and O. Klindt-Jensen is the suggestion for reconstruction made by A. Radnoti. He is of the opinion that the mountings belong to a double-yoke of wood with a shape to some degree resembling the La Tène-yoke.

It does not seem possible to determine whether the draughtanimals tied to the Bredmose-yoke would have been horses or oxen. It seems to be a fact that oxen had the heavy duties connected with ploughing and transport in the early Iron Age. But the fairly light and elegant construction of the double-yoke leave some doubt whether it was used in connection with heavy work.

Gundestrup og Titelberg

Af Elsebeth Sander-Jørgensen Rowlett og Ralph M. Rowlett

Siden Gundestrup-kedlen blev fundet i 1891, har dens oprindelsessted og dens billedverden været stærkt diskuteret. Ole Klindt-Jensen og andre forskere var af den opfattelse, at kedlen var fremstillet

et eller andet sted i det sydlige eller centrale Gallien, mens Powell, Allen m.fl. antog en mere østlig oprindelse. Senest har Olmsted på grundlag af sammenligninger med daterede keltiske mønter henvist til et nordvest-gallisk område, hvor kedlen så skulle være fremstillet i perioden 80-50 f.Kr. f.

I artiklen analyseres to løsfundne figurfibler fra Titelberg i Luxembourg. Begge har motiver, som viser stor lighed med Gundestrup-kedlens billedverden.

Udgravningerne ved Titelberg, der foretages af Luxembourgs Nationalmuseum i samarbejde med Missouri-Columbia-universitetet, har afsløret en kontinuerlig og ubrudt lagserie, der dækker perioden fra La Tene II og frem til ca. 400 e.Kr. f. I denne sammenhæng interesserer det især, at der er påvist ialt fem gulvlag, som ud fra mønter og keramik kan dateres til 80-50 f.Kr. f.

På den ene fibula består motivet af et ansigt mellem to delfiner. Et næsten tilsvarende stykke kendes fra Vindonissa lidt nordvest for Zürich og begge eksemplarer minder slående om Gundestrup-kedlens inderplade B. Den anden fibula, hvis motiv er en rytter, viser stor overensstemmelse med de spydbærende ryttere på kedlens inderplade A. Disse ryttere er tidligere blevet sat i forbindelse med Freisen-hesten fra Trier-området.

Gundestrup-kedlen findaterer således de løsfundne Titelberg-fibler og de giver sammen med Freisen-hesten en formodning om, at kedlens oprindelsesområde måske bør udvides til også at omfatte den del af Øst-Gallien, som var beboet af Treveri-stammen.

Bulbjerg. An Analysis of the Pottery from a Cemetery in East Jutland from the early Roman Iron Age

By Mette Høj

The concept of pottery-graves results from the excavations of large cemeteries in East Jutland – among others Lisbjerg north of Århus. The excavations were carried out at the turn of the century by the National Museum. Each of these graves contains on average seven clay vessels.

The large group of ceramic material was catalogued by H. Norling-Christensen, but was never followed up by an analysis because of his death.

This article is an attempt to construct a pottery chronology on the basis of the material from one of the largest cemeteries in the area: Bulbjerg.

Three main categories have been selected and classified in a number of types by means of vessel proportions (fig. 1). The definitions are given next to the figures of the different types. On the basis of the percentage distribution of ornamental elements a relative pottery chronology has been established by means of a matrix analysis – the so-called Robinson-Brainerd method. Only the foot-vessels and vases have been seriated, since the insufficient classification of the bowls makes it impossible to use the method. The results of the seriations are seen in fig. 3-4. The ordered matrices show a break in the ornamental tradition among the foot-vessels and vases. The break results from the appearance of the three-lined meander.

The ordering of the ceramic sequences is confirmed by cross-finds between the clay vessels of the different types (fig. 5).

By means of cross-finds between pot types and fibulae an absolute chronology has been attained resulting in a division of the material in per. I and per. II (fig. 6-7).

Three Pottery-Graves from West Jutland. A Stratigraphic Find from the Early Roman Iron Age

By Jens Aarup Jensen

The article describes 3 iron age inhumations dating from the 1st and 2nd centuries AD. The graves were situated in Hover parish, 15 km NE of Ringkøbing in West Jutland, and were excavated in 1980 by the Ringkøbing Museum. Several graves from this period of the iron age are known, but very few have previously been published. Graves I and II were placed one above the other. The decomposition of the wooden construction of the lower grave is estimated to have taken at least 50 years, and it could be seen that grave I was not constructed until the wooden sides and lid of grave II had collapsed. The pottery from the older grave is black, has a smoothed surface, and is rather thin-walled. One of the pots is decorated with a meander pattern. The pottery from grave I, the later of the two, is more coarse and heavy, and has a cruder decoration consisting of soft strokes and incised lines. This type of decoration is well-known from the 2nd century AD houses on the Nørre Fjand settlement, excavated and published by Gudmund Hatt. It is

interesting that this tendency in the development of pottery decoration has now been documented stratigraphically.

Nr. Broby – a Princely Grave from the Early Roman Iron Age with Wagon and Harness

By Lotte Hedeager and Kristian Kristiansen

The richly furnished female burial from Nr. Broby on Funen belongs to the well known group of North European princely graves from the early Roman iron age (0-200 AD). Some previously undetermined objects (figs. 3-4) are interpreted as belonging to a prestige wagon of Dejbjerg type. The two horse bits from the grave (fig. 2) now make more sense. Thus, in addition to an incomplete Roman drinking set and a Roman silver mirror (fig. 1), the burial contained, in symbolic form, a horse-drawn wagon of "Celtic" type. Both the horse bits and the mountings were made by a single person, probably locally.

The custom of depositing prestige wagons in burials belongs to the late pre-Roman iron age (150 BC – 0), in Denmark represented by Langå on Funen and Kraghede in north Jutland. Nr. Broby thus represents both Celtic and Roman influences.

Ein Brandgrab mit einer Distelfibula aus der Trudsholm-Gegend, Ostjütland

Von Per Lysdahl

Der Artikel beschreibt einen Grabfund von Trudsholm, Kastbjerg Ksp. (nördlich Randers), Ostjütland. Der Fund besteht aus einer Urne mit verbrannten Knochen, einem Eisenmesser, einer Bronzenadel und einer defekten Bronzefibula (Abb. 1). Tongefäss, Messer und Nadel zeigen gewöhnliche Formen der älteren römischen Kaiserzeit Jütlands auf. Die Fibula ist eine Distelfibula (Almgren 240) – die einzige aus Dänemark bekannte.

Die Distelfibula ist vom provinzialrömischen Typ (Abb. 2), der besonders in den Rhein- und Mosel-Gegenden vorkommt (Abb. 3), aus der augustäisch-claudischen Zeit. Sie ist in den römischen Kastellen nur selten gefunden worden (Ritterling 1912, S 138). Die in Gräbern gefundenen Eksemplare stammen aus Gräbern, die der einheimischen Bevölkerung (Behrens 1927, S 53) oder den römischen Hilfstruppen (Fremersdorf 1927, S 262 ff) zugeschrieben werden. Man kennt eine einzelne bildliche Darstellung der Distelfibula, nämlich von der Frauenstatue aus Niederingelheim (Abb. 5). Die Distelfibeln sind also von der einheimischen Bevölkerung verwendet worden, während sich die Benutzung der Fibula bei den römischen Soldaten nicht klar durch Funde belegen lässt. Die Bezeichnung »Militärfibula« ist also unzutreffend.

Zum Schluss wird über Handelswege auf Grundlage der Abb. 7 gesprochen, wo die Vorkommen provinzialrömischer Fibeln aus dem 1. Jahrh. von Dänemark und Norddeutschland dargestellt sind. Die Ausbreitung der Fibulatypen vom Rheingebiet her macht es wahrscheinlich, dass es einen Seeweg entlang der Nordseeküste von Nordwestdeutschland zum südlichen Jütland gegeben hat.

An Early Roman Iron Age Smith's Grave from Tolstrup near Års

By Karin Levinsen

In 1931 four iron age urns were found during the removal of the last stones from the kerb of a neolithic mound. The excavation was unskilled, but information which was most probably correct was collected by Vestergård Nielsen in 1932.

Two urns contained only burnt bone, while urn 3 contained a knife (fig. 11) and a file (figs. 4-5). Urn 4 contained the following: a set of blacksmith's tools comprising a hammer (fig. 2), a pair of tongs (fig. 3) and a file (figs. 4-5); two spearheads (figs. 6-7) and a sword (fig. 8); one knife, one razor (fig. 9), and among some rusty objects were identifed a key and part of a lock (fig. 10). All the objects were made of iron.

The two urns without gravegoods were not preserved, and grave 3 is dated to the Roman iron age by the knife. Grave 4 is more complicated. The urn itself has its closest parallels in pre-Roman iron age period III, and the combination of weapons relates the grave to the late pre-Roman warrior graves, dated by the razor, key and lock to the early Roman iron age, phase B1. Tolstrup grave 4 therefore represents a very early example of blacksmith's tools.

Blacksmith's tools known from the Roman iron age are generally small and intended for fine work, and are found in rich graves (fig. 13). Finds of slag in villages and graves show that iron working was much more common throughout the country than smiths' graves would suggest (fig. 12).

There is reason to believe that the graves represent blacksmiths with a certain status in society, acquired for instance by their ability to forge weapons. The Vimose find shows that the blacksmith (as well as the carpenter) had some military connection. It is possible that the Tolstrup smith was a person of high status connected with the nearby village of Tolstrup, which is now being totally excavated. This village seems to be similar to Hodde, with a stratified society, which would probably have had the economic basis to support a blacksmith of high status.

A simple *Prunkfibel* from Northern Jutland

By Mette Iversen

In a woman's grave (fig. 1) at a small cemetery in Foulum near Viborg were found one silver-plated brooch (figs. 1-2) and 3 small silver brooches with high catch-plate (fig. 4), c. 70 amber beads and c. 120 glass beads (fig. 5), a belt buckle, a knife, and 2 pots (fig. 6) (note 1). Based upon the brooches the grave is dated to the middle of the Late Roman Iron Age.

The silver-plate brooch (figs. 2-3) has a pointed foot-plate with a hemispherical transparent pale green piece of glass in an indented setting of sheet-silver with an impressed imitation of a beaded thread at the outside. The bow is decorated with beaded threads and there are perforations for 2 spirals; obviously the brooch has never had a head-plate.

The brooch belongs to *Mackeprang type XI* or *Albrectsen type 31* (note 2, see figs. 64-71 in N. Åberg 1956 and fig. 60 i in O. Klindt-Jensen 1978), and in M. Schulze's very detailed subdivision of *Almgren VI:2*-brooches it would be classified as *IVxAg1a* (note 9).

By elements like precious metal, a double spiral, rich ornamentation of beaded thread, silver-foil, and glass, the brooch differs from the ordinary brooches and by some of these characteristics it can be grouped with the *Prunkfibeln* (note 3), the most distinguished of which are the brooches from Hassleben, Leuna, Sanderumgaard, Stráže, and Zakrzów/Sackrau. As regards quality and costliness the great distance between the Foulum-brooch and these brooches is obvious, nevertheless it seems very likely that the underlying inspiration to the Folum-brooch and a few other more simple brooches from Denmark (note 5) comes from the magnificent Continental brooches.

The most noteworthy among the beads is a breloque made from a medium blue bead and a cobalt-blue lump of glass (fig. 7). Almost all of the few finds with glass breloques (19 in Continental Europe (notes 11 and 19), 2 in Norway (notes 11, 16, and 20), 1 in Scania (note 15), and 2 in Denmark (note 14 and 1)) are very rich graves, and the breloques from the Continental graves are considered to have been produced in North Italian glassworks. It is very unlikely that this is the case for the clumsy Foulum breloque; it might have been made in the Nordic area.

In the breloque and the brooch we find an example of local striving towards a foreign model. It is rather remarkable that Iron Age man in the centre of Jutland was so familiar with the accessories of Continental upper class women that somebody in a small village felt it important to imitate them as well as possible.

The Continental *Prunkfibeln* are attributed to princely houses in the Germanic societies, where an increasing segregation of the upper class is assumed (note 22). It is easy to imagine how close contacts with the Roman Empire had an important influence on the stratification of the Germanic societies near the *Limes,* but likewise one would imagine that distant Nordic societies would be *less* influenced by *Imitatio Imperii.*

To what degree the Nordic societies in Late Roman Iron Age in fact were stratified is not clear. In Jutland several better-class graves have been excavated (note 23), and among them some are situated in the immediate neighbourhood of contemporary settlement sites with fenced-in farms (fig. 8) (note 24), which, however, do not bear witness of greater social differences, although the graves show that some inhabitants in the village wanted and were able to mark a higher status. They were well-informed, with an obviously completely European view. Is it just because too few settlements have been excavated that the farm of the big farmer does not stand out, or is the prosperity based on something other than daily production? On Funen and Zealand the picture is different; among the graves we find princely ones, but we have no settlements, so it cannot be determined if the difference between the provinces is due to bad representativity or if the societies are unlike each other. All in all one gets an impression of regional communities with at least some social variation.

Stjær. An Old Find in a New Light

By Birgit M. Rasmussen

During the years 1898, 1899 and 1908 a number of finds were received at Aarhus Museum from a barrow at Stjær west of Århus. These were a wooden bucket with horsehead mounts (figs. 1-2), a bronze ladle (fig. 11), a fragment of bronze with silver gilt (fig. 12), a silver finger ring (fig. 13), a bronze vessel with straight sides (fig. 14), a glass beaker (fig. 16a-b), a three-layered comb (fig. 12) and two pots (figs. 10 and 15).

These objects all derive from the later Roman iron age and make up the Stjær find; they have always been interpreted as the finds from a single grave, even though the objects arrived in three separate groups, and the information concerning them is scanty and not completely clear.

The dating of the individual objects is gone through as the basis for a consideration of whether the find can be regarded as coming from a single grave. A survey of wooden buckets with horsehead mounts is presented (fig. 9), which on the basis of the find from Tibble (Sweden) and the profile view of the horseheads are referred to the late 4th and early 5th centuries AD. These wooden buckets with horsehead mounts are hardly likely to be locally made; they were probably produced in southwest or northwest Germany, where profiled horseheads of similar shape and composition are common on combs and strap-end mountings.

The 1898 find: Dating of objects with horseheads in profile shows that the wooden bucket can be made no earlier than the second half of the 4th century, and no later than the beginning of the 5th century AD. The handled bowl cannot be dated more accurately than to the 3rd century AD. The most common date of ladles and strainers of Eggers type 161 is the 3rd century AD, but the ladle from Stjær belongs to typologically late forms so it is reasonable to date it to the later 3rd and early 4th centuries AD. The wooden bucket must thus be somewhat later than the ladle and the bowl, even though the finder did state that they were all found together. It cannot be proved that the objects did not come from the same grave; but if they did, the ladle would have had to be a very old object and the bucket completely new when they were placed in the grave.

The 1899 find: The silver finger ring is probably to be referred to the later part of the later Roman iron age, although there is some doubt as to the time the type persisted in circulation. The bronze fragment with silver gilt cannot be dated more precisely than to the later Roman iron age. These two objects could perfectly well have been found together, but whether they belong to the find made the previous year (as the finder said) cannot be determined on chronological grounds due to the wide dating limits.

The 1908 find: The bronze vessel, the handled bowl and the glass beaker are described as a "closed find". The lack of precisely dated parallels makes it difficult to be sure that the objects all come from the same grave, but this cannot be dismissed.

The objects found in 1898 and 1899 seem on the basis of the dating of the wooden bucket to around 400 AD hardly likely all to come from the same grave; the rest of the objects in the two finds all seem to belong to the middle of the later Roman iron age, and are thus to some degree likely all to come from the same grave. The 1908 find is also fairly likely to represent a single grave from the end of the 3rd century AD.

The earlier view of the Stjær find as a single closed assemblage is thus incorrect. The dates of the various objects show that the find is composed of objects from 2 or 3 graves, which between them span the time from the end of period C1 to the transition between the later Roman and early Germanic iron age.

The Golden "Knights"

By Søren Nancke-Krogh

In origin, C-bracteates (fig. 1) apparently imitate equestrian figures, but the harness is not the type used for mounted riding. It is similar to that used for Roman chariot horses. The evolution might be visible in a copy of a medallion of Constantine I (337-360) from Godøy in Norway (fig. 9). On the reverse is a charioteer and two horses – the Roman biga has disappeared. On the obverse the body of the charioteer has disappeared and the two horses under his head are amalgamated with a head at each end of the body. Remove one of these heads and the result is a C-bracteate.

Other details do not derive from Roman prototypes. The helmet with the eagle's head in front is inspired by Sassanian coins (fig. 10), showing the God of Victory, Verethragna, transformed into the bird Varagn ("far seeing", a raven or eagle). The Iranian God transformed himself into a "beautiful, golden-horned horse" (23),

and the whole C-bracteate can be explained as an illustration of his metamorphosis, because the horse has horns. Other Nordic bracteates also seem to illustrate the transformations of the Sassanian God Verethragna (24-26), and later, in the Vendel Period, he became a true equestrian, associated with the Nordic God Odin, with eagle helmet and two flying ravens (fig. 12).

A statistical examination of a group of almost identical C-bracteates (A-N) shows differences (fig. 2) in small details. To see how related they really are, we compare the sum of likenesses (fig. 3) and the sum of differences (fig. 4); the results are found to be not quite identical. A combination is therefore made (fig. 5) by subtracting the sum of differences from the sum of likenesses after doubling the sum of likenesses, because the differences are counted in two rows in fig. 2. From this scheme is taken the five bracteates with the greatest sum of likenesses (fig. 6): C:45, L:42, K:37, M:34, B:32. Bound to each other the succession of numbers is different from the succession in other connections. Thus it is possible to determine whether an individual bracteate belongs to one group or another (figs. 7-8 and further calculations). Thus we arrive at:

Group I: CLMK. C from a late 4th century burial, *L* found with a gold coin dating from 364-375 AD, and D-bracteates. Area: Bohuslän, Sweden, Sørtrøndelag, Hannover and Holland.

Group IA: FA. A and D-bracteates. Area: north Jutland and south Norway. This may be a west Scandinavian group, contemporary with group II.

Group II: NEB. Rune-A-bracteates, D-bracteates, *E* with clasps in developed style I: late 5th century. Area: Västergötland, Scania, Wesermünde/Niedersachsen, i.e. the most eastern local group.

Group III: IDGH. H with other bracteates: B, C (with riders: development from charioteers is accomplished) and *D*, with mount of gold scabbard in late style I, 500 AD or later. Area: local group in south Norway and adjacent parts of Dalsland.

There is no reason to doubt that the objects found together are contemporary, as they show no heavy signs of wear. Datings indicate that this special type of C-bracteates had an unexpectedly long continuity, some 150 years without substantial alteration.

On the other hand the find area changed during the period. At the time of origin, in the late 4th century AD, it was a widespread group. Later it subdivided into local groups, continuing longest in south Norway. The same pattern can be followed in other things in the early migration period, starting with a more continental pattern at the time of the last wars against the Romans, followed by peace, wealth and local centres of production.

The Ellegård Grave

By Birgit Lind

The Prehistoric Museum at Moesgård contains a display of jewellery from the later Germanic iron age (fig. 1). The find is from Ellegård on Bornholm, and was excavated in 1955 by Ole Klindt-Jensen, but never published, The grave was in a small cemetery found during gravel digging, and several objects were found apart from the jewellery. The corpse was interred on its left side, with legs bent and head to the north. Apart from the tooth enamel nothing was left of the skeleton itself but it was visible as a dark stain in the soil (the excavated grave with finds in situ is shown in fig. 2).

The finds include 3 bronze brooches, one of which, a small oval brooch (Ørsnes' type N 1 c) with animal decoration in South-Scandinavian style D/F, was found below the jaw (fig. 3 and 4). On each shoulder was an animal-shaped brooch (Ørsnes' type 0 2 a). Two arm rings of bronze (Ørsnes' type Q 5) with stamp ornamentation were also found (figs. 3 and 6). In the chest region were 49 beads of various material (figs. 7-8). Nine are of bronze, including two large ones with traces of gilding and with interlaced decoration (fig. 8). Two of the other bronze beads are segmented, while the remaining 5 are of spiral wire. Only one bead is of amber; the rest are glass, 24 being monochrome, dominated by blue and green colours. 12 others are polychrome, with inlayed eyes and glass threads. Finally there are three of clear glass inlayed with silver foil. Under the jaw of the corpse were the fragments of a little bronze bell and two fragments of an iron object with one end bent round – probably a needle (figs. 3 and 9). Finally, a fragmented iron knife lay in the pelvic region (fig. 11).

The jewellery from Ellegård is characteristic of the later Germanic iron age and can be referred to Ørsnes' phase 3 a (about 725-750 AD). The brooches are of local Bornholm types, and are regarded as being locally manufactured, and the arm rings are also of Bornholm type. These same types are known from other settlements on Bornholm: Bækkegård, Lillevang-Melsted, Lousgård and Nørre Sandegård. The large bronze beads with interlaced decoration are known from the Nørre Sandegård cemetery on Bornholm, and similar ones are known from contemporary Swedish graves and one on the Åland Islands. The beads often appear in pairs, and are of Scandinavian origin; smaller ones without decoration, or with simple ornamentation of lines and stamps, are known from the earlier

Germanic iron age onwards. The glass beads need not necessarily all be imports from the Continent, as the presence of contemporary bead manufacturing workshops on Helgö and elsewhere shows. The little bronze bell is of Finnish/East Baltic type. They are rare in Scandinavia, usually being found in Viking Age contexts; they are known from Birka and Gotland in Sweden, as well as in Lapland and northern Norway in finds of eastern type. In Finland and the east Baltic they are used as pendants hung from chains with other objects or sown onto clothing, but do also occur alone. Single bells were found in childrens' graves at Birka, where they were interpreted as toys or rattles. One has been found on Bornholm (fig. 10), at Brændegård, together with Slavonic pottery dating from about 800-1 000 AD.

The symmetrical setting of the jewellery reflects the fashion of the time, a normal set consisting of two identical brooches with a third of another type, a set of beads, and two arm rings. The two identical brooches on the shoulders and the one of different type are characteristic of the Viking period, when two tortoise brooches fasten a garment over the shoulders, and a small fibula is sometimes found in the neck region on an undergarment over which a cloak is worn. Textile fragments from Ellegård show that the outer cloak was of wool, while the undergarments were of linen.

The beads form a pectoral ornament which apparently hung in two rows (fig. 12). Scandinavian finds from the later Roman iron age onwards commonly show the trait of beads hung on the chest. The fashion of wearing them in the later Germanic iron age is, like the number of beads used, their type, and their colour, dependant on time and fashion. Many beads of the same size, in yellow and red colours, are characteristic of phase 1 b-2a. They were worn in several rows across the chest, between special end pieces. In phases 2 b-c blue and green colours are added to the red and yellow ones; in phase 3 the necklaces have fewer beads, of varying sizes, and in colours dominated by blue and green, which together with polychrome beads give a more varied appearance. The set of beads from Ellegård is a typical example of this type.

A late Viking-period/twelfth-century Boatyard situated by the Fribrødre River in the Island of Falster

By Jan Skamby Madsen

In the autumn of 1981, during the dredging of the River Fribrødre, a number of pieces of ship's timbers were found at a position about 2 km south of Stubbekøbing (fig. 1). An excavation was carried out at the site in June 1982 by the Viking Ship Museum, the Institute of Maritime Archaeology of the National Museum and the local museum, Falsters Minder, in collaboration. The excavation yielded a rich selection of timbers from several eleventh-twelfth century ships, showing both Scandinavian and Slavic details in their construction (figs. 3 and 6). Tools, pottery and a great deal of wood waste were also found.

The material would seem to have been deposited in a rush-grown part of the old course of the river and the composition of the finds suggests that ships were broken up here to provide material for the construction of new ships on the river-bank.

The site of a ford has been located at a distance of 50-100 m from the yard. At both sites there has been found pottery from the Baltic region (fig. 8).

This supports the view that the river-name Fribrødre (1354 Pribrødre) may be derived from Wendish Prybrode = at the ford. Can it have been the yard here at the ford, which may have been under Wendish direction, that gave its name to the river?

The investigation is to continue for the next few years.

Dendrochronological Investigations on Ship's Timbers from Fribrødre River on Falster

By Niels Bonde

The results of a preliminary dendrochronological investigation are very encouraging, although no master-chronology exists for the area yet. Dating was carried out with reference to master-chronologies from southern Sweden, southern Jutland and Schleswig-Holstein.

It is possible to date some samples from at least one vessel to the period 1055-60 AD.

Brovold

By Jan Koch

Brovold, on the island of Als, is a fortified village from the medieval period, which was investigated in 1931-33. During a re-evaluation in 1971-72 it became clear that there were many uncertainties and questions with the excavations in the 1930's. Many things suggested that a re-examination would be fruitful. This was carried out, and the results of this critical archaeological evaluation is put forward here. This leads on to a broader examination and cultural evaluation of the uniform house type on the site.

In the periodical *Kuml* for the year 1978 Brovold is presented, dated, and put in a historical perspective.

Viking Carts

By Per Ole Schousboe

The author is in the process of publishing Danish and Northwest European finds of wooden parts of carts. In this article he attempts to assemble various lines of evidence concerning Viking carts, which to some degree contradict prevailing views. Besides the wooden objects themselves, the sources are grave finds, depictions of carts on textiles and in stone carvings, and written and linguistic evidence.

The cart from the Oseberg burial, Vestfold, Norway (fig. 1) is of central importance for this investigation, as are the fragments of embroidery with pictures of carts from the same grave (figs. 2-5), dated to the middle of the 9th century. It turns out, however, that only the chassis of the Oseberg cart is replicated in bog finds (fig. 6), and the cart bodies from the rich female graves in Jutland and Schlesvig-Holstein, dating from the 10th century, are also lacking from the bog finds. The bog finds therefore presumably represent real working carts of wood; these become ever more efficient through the Viking period (fig. 7), and acquire new methods of harnessing the draught animals (fig. 8).

Oseberg type cart bodies from the rich female graves must therefore be regarded more as containers for personal belongings which could be transported by both cart and ship, rather than as true cart bodies. There is no clear evidence from any grave except Oseberg that the cart body actually belonged to the chassis; and in the Oseberg case, the chassis is apparently for show. The embroidered pictures are unclear, as are the few carvings on stone from Gotland. They are often illustrations of Nordic myths, and probably do not represent Viking material culture.

An interesting Fibula from Samsø

By Hans Jørgen Madsen

The paper describes a Viking Age fibula recently found in a field near Alstrup on the island of Samsø, and two similar fibulae from Denmark are mentioned. The shape of the fibulae is clearly derived from hilts belonging to Viking swords of Jan Petersen's type D and so are their ornaments. This means that the fibulae can be dated to the 9th century and possibly to the period around 900, which agrees with the fact that one of them was found in a grave belonging to the first half of the 9th century.

The place where the Alstrup fibula was found was visited during the spring of 1983, and on the surface of the field could be found dark areas and potsherds of Viking Age types. Thus the site is probably a Viking Age settlement; it will be more thoroughly investigated at a future date because of its situation near Stavnsfjord from where an 8th century canal (Kanhavekanalen) previously led to the Kattegat.

Winchester-»vindfløjen« i nyt lys

Af Birthe Kjølbye Biddle

Winchester-pladen, der længe har været anset for at være del af en vindfløj, er efter alt at dømme beslag til et skrin af samme størrelse som Bambergskrinet. Det foreslåes, at beslaget skildrer kampen mellem »det store dyr og slangen/slanger«, og at mønsterets blomsterlignende udseende er sekundært i forhold til dyret. Stilen forekommer mere skandinavisk end angelsaksisk. Som mulig datering foreslås 1. halvdel af 11. årh. I artiklen fremlægges to nye tegninger,

udført af Nicholas Griffith, samt fotografier taget efter konservering af pladen.

A bronze Pin of the Norwegian Vestfold "Stikknål" Type from Vindebjerg on the Peninsular of Knudshoved, Southzealand

By Wava Armfelt

In the escarpment West of the small inlet, called Mikkels Havn, situated on the South coast, and not far from the tip of the peninsular of Knudshoved there came to light the remnants of a Late Bronze Age site in the year 1963.

The habitation layer, although thin, was easily detectable, and had thus attracted the attention of others than the archaeological team, who started work on the site in 1966. Thus one day a bronze pin was delivered to Sydsjællands Museum in Vordingborg, and it was claimed that the pin originated from the above-mentioned site, called Vindebjerg. The National Museum of Copenhagen was dubious as to the period to which the bronze pin might belong, since no close parallels had hitherto appeared in Denmark.

The bronze pin (fig. 1a, b, c) has a circular, flat head 1 cm in diameter of 2 mm. Just below the head, on either side, there is an indentation rather like a notch. The top part of the stalk of the pin itself – roughly 1 cm – is decorated with a simple, irregular pattern, consisting of small punches holes, underneath which, but on one side only, is a notch similar to the two above the punched ornamentation. The full length of the pin in its present state is 10,8 cm, and in shape slightly curved towards the broken tip. The cross-section of the pin is circular, 5 mm thick and thinning out towards its point.

The bronze pin from Vindebjerg seems related to a type of pin, well known in the county of Vestfold in Norway. They undoubtedly date from the Viking Age, and several have been found in and around the important site of Kaupang, which also yielded material that could point to a local production. Because of the concentration of finds in this part of Southern Norway, and the fact that so very few of this type have come to light in the rest of Scandinavia, they are now known as Vestfold pins or "Stikknåle", an untranslatable word meaning a pin to stick into something. The Norwegian pins (such as fig. 4 a-b) are slightly more elaborate than the Vindebjerg specimen, and they may have been cast although no moulds have so far been retrieved.

Having established that the find from Vindebjerg is probably of the Vestfold type, it should be mentioned that there does exist one other Vestfold "Stikknål" from a Danish site, namely from the habitationlayer underneath the Viking Age fortress of Aggersborg in Northern Jutland (fig. 2).

From the island of Gotland, belonging to Sweden, come three Vestfold pins, of which the one from Fardhem (fig. 3a) bears resemblance to the Aggersborg pin, whereas the find from Burge, Lummelunda (fig. 3b) has more in common with the Vindebjerg specimen. Three pins from Iceland complete so far the list of finds of the Vestfold type in Scandinavia outside Norway.

It is interesting to note that a Viking Age bronze pin from Inchbofin, Ireland (fig. 5a) is somewhat similar to the Nordic finds, and that Liam de Paor (note 8) suggests that it might be of Scandinavian origin, and compares it with two finds from Haithabu, Schleswig (fig. 5b and c).

Distribution of the Conical Spindle Whorl

By Peter Birkedahl Christensen

During excavations of the Viking Age village of Søby on the island of Samsø a number of spindle whorls were found, one being of an unusual type (fig. 1). A similar one was found in the Viking Age village beneath the Viking fortress of Trelleborg. These are intermediate in form between the domed spindle whorls of fine-grained sandstone known from Zealand, Scania and the Slavic regions (fig. 3), and the simple conical type made of burnt clay which is known from Jutland (fig. 2).

The Fate of the Flensborg Collection

By Jørgen Ilkjær and Jørn Lønstrup

Ole Klindt-Jensen carried out research into the history of archaeology with the greatest success. This inspired us to examine and interpret the sources dealing with the early bog finds from Thorsbjerg and Nydam in southern Jutland.

In the period 1852-1864 Conrad Engelhardt assembled "The Royal Collection of Scandinavian Antiquities" in Flensborg. When war with Prussia threatened in 1864, he packed most of the Flensborg Collection into 32 cases, which were sent to Nordborg on the island of Als.

At the same time he sent a letter to Copenhagen, to Regenburg, who was Director of the 3rd office in the Royal Ministry of the Duchy of Slesvig. In this he wrote: "I respectfully take the liberty of recommending the accompanying case to your concern. It contains a number of important objects from the bog finds, and I hope you will not be offended if I request you to keep it in a secure place until peace is re-established.«

Apart from the 32 cases sent to Nordborg and later on to Korsør, Engelhardt must thus also have sent a collection of finds from Thorsbjerg and Nydam to Copenhagen.

The location of the cases in Korsør was known only to a few people. According to article XIV of the Treaty of Vienna, they were to be surrendered to the victors, but this was delayed because nobody in authority seems to have known where the cases were hidden.

That Engelhardt knew the hiding place is clear from a letter he wrote to Regenburg, in which he wrote: "– to your very kind letter from the Foreign Ministry I reply that in my earlier letters I have communicated everything which I, as Inspector of the Collection, know about it. The circle is in the mean time getting narrower and narrower, and it may soon be time to drop a small hint as to the place."

The whole conspiracy achieved nothing. In February 1868, just four years after the Flensburg Collection was evacuated to Korsør, it was taken to Kiel. As early as November 1866 a Dane had informed the Prussian Legation in Copenhagen that he knew the hiding place, and that he would reveal it for 25,000 *rigsdaler*. He received his pieces of silver.

But what happened to the case that Engelhardt sent to Regenburg in Copenhagen? It is necessary to examine the visits King Frederik VII paid to Engelhardt's excavations. The "livskytte" Jørgensen has left a description of one of these.

After the description of the investigations of October 27th 1863, he adds: "I received for His Majesty's private collection two mounts for a shield and small tweezers of bronze from the objects found."

This note is somewhat confusing, because King Frederik VII's collection, now in the National Museum with its documentation, contains nearly 250 objects described as "finds from Nydam bog, mostly excavated by His Majesty the King, 27th October 1863".

This description is clearly misleading, but it does legitimise the objects it covers as belonging to the group of "objects which the late King had excavated from Nydam bog at his own expense".

As early as 1861 Engelhardt had, entirely legally, sent a small collection of finds from Thorsbjerg and Nydam to the Museum of Scandinavian Antiquities, and a larger group to the King's private collection. This latter group was entered in the back of the Royal register as a special collection, leaving space for further entries. This space was used, and it is beyond all reasonable doubt that the c. 550 objects entered here are those the case containing "a number of important objects from the bog finds" which Engelhardt sent to Regenburg in 1864.

Frederik VII had died on November 15th 1863 and so was in no position to protest; but he would surely have been royally amused by the events of 1864, and by the fact that Worsaae was in 1866 quietly able to add some 650 objects from Thorsbjerg and Nydam to the Museum of Scandinavian Antiquities, which had previously possessed only about 80.

C.J. Thomsens museum og treperiodesystemet

Af Peter Rowley-Conwy

Frances Williams Wynn, en fjern slægning til forfatteren, besøgte i 1827 Danmark, og i hendes efterladte dagbøger beskriver hun et besøg på Oldnordisk Museum den 27. august samme år. Hun blev vist rundt af Thomsen selv, og var meget imponeret af museets indretning.

Af hendes beskrivelse fremgår det klart, at treperiodesystemet var helt færdigt og i brug i 1827, selv om det først publiceredes i 1836. Mange af de idéer, som Thomsen fremsatte i breve til andre forskere i 1824 og 1825 kommer til udtryk i Frances' beskrivelse af hendes rundgang i museet. Thomsen brugte øjensynlig allerede tidligt udstillingerne til at vise sin opfattelse af treperiodesystemet. I beskrivelsen af udstillingen går Frances frem i kronologisk rækkefølge, og det fremgår klart, at hun foretrak Thomsens museum fremfor andre museer, hun så under sit besøg i København, og som ikke var ordnet så klart og logisk.