Chapter 1

Tustrup

Palle Eriksen, Anne Birgitte Gebauer & Jørgen Rydén Rømer

Location, topography and geology

Palle Eriksen

The village of Tustrup is located in East Jutland, in the northern part of the Djursland peninsula, around halfway between the towns of Randers and Grenå.1 The area containing the monuments is around 1.5 km west of the village (Fig. 1.1). It consists of five protected ancient monuments: two dolmens, a passage grave, a ritual enclosure and a round mound (Fig. 1.2). They were all constructed between 3,300 and 3,200 BC and interacted with one another in the Middle Neolithic Funnel Beaker Culture (Fig. 1.3).

The round dolmen, passage dolmen, passage grave and ritual enclosure are located close together, 35-85 m apart, on a flat area covered by heather, which to the north-west is bounded by the steep slope down to the valley of a watercourse, Hevring Å (Fig. 1.4). To the south, the area is also bordered by a steep slope to a ravine, which flows into the watercourse. Parallel with this ravine, two smaller ravines cut down towards the valley of the watercourse, respectively 80 m and 120 m further to the north. Today, visitors pass through the northernmost ravine when they walk along the path from the car park and have crossed the valley. Only 100 m east of the megaliths is a grown-over bog measuring 120 x 40 m, which is known locally as Offermosen (Fig. 1.4:6).

The terrain with the megaliths is 30 m above sea level and 10 m above the 50 m-wide Hevring Å valley. The watercourse flows to the west, and after 7 km, into Hviding Kær. In the Atlantic period - 7000-3900 BC - the valley of the watercourse was probably full of water and was more reminiscent the branch of a fjord, whilst Hviding Kær at the mouth of the watercourse was a 2.5 km-wide fjord, which widened to the north into the open waters - today's Kattegat. The site at Tustrup was only 2 km away from the Kattegat in a northwards direction. At the end of Atlantic period around 3900 BC, - at the same time as the Neolithic began - the water level decreased somewhat, but was still much higher than it is today, so Djursland would have looked quite different. The peninsula was cut from west to east by the saltwater Kolindsund, and the regular coastline of today was interrupted by inlets, bays and small fjords (Fig. 1.5).

The soil in the megalith area is classified as moraine sand, and immediately to the east of this as meltwater sand.6 There are different sized areas of drifting sand in many parts of North Djursland, including a small area a few hundred metres to the south-east of the megalith area.7 The fact that drifting sand previously covered large areas at Tustrup, but later became mixed in with the soil as a result of cultivation, is supported by observations that were made during the excavations in the 1950s, when it was noted that wind-deposited sand had raised the ground surface by 40 cm, concealing a small, low 2000-year-old burial mound.8 This burial mound, Tustrup structure 6, midway between the passage grave and round dolmen, is discussed later on, in Chapter 6.

The large stones used for the construction of the three megalithic tombs and the ritual enclosure mainly consist of granitic gneiss. Wood-like stone amphibolite has been used for the doors and door frames, as is described in Chapter 11.
Fig. 1.1. The location of the Tustrup site is shown with a yellow square.

Fig. 1.2. Tustrup viewed from the air. The round dolmen can be seen at the bottom right, followed in a clockwise direction by the passage grave, passage dolmen and the ritual enclosure. View from the south-west.

Fig. 1.3. Chronological table showing the Funnel Beaker Culture in Djursland. Abbreviations: EN: Early Neolithic; FBC: Funnel Beaker Culture; MN: Middle Neolithic; PWC: Pitted Ware Culture.

Fig. 1.4. Map showing contours at an equidistance of 25 cm in the Tustrup area. 1: The round dolmen; 2: The passage dolmen; 3: The passage grave; 4: The ritual enclosure; 5: The round mound; 6: Bog (Offermosen).

Fig. 1.5. The relationship between land and water in Djursland when the megaliths were erected at the Tustrup site. The yellow square shows the location of Tustrup. The white line indicates the present coastline.
Land use in the modern period

Jørgen Rydén Rømer

In the decision giving protected status to the Tustrup megalith area of 1956, it is stated that the protected area has not obviously been intensively cultivated, as large moraine stones still lie on the ground surface. On the relief map from 2015, however, the contours of an extensive system of ridge and furrow can be made out in the area running in a north-west-south-east direction (Fig. 1.6). As the modern land register boundaries cross these fields, the area must have been previously cultivated. An examination of the historical sources provides further information.

The earliest example of a written source which illuminates the use of the area is Christian V’s land register, from the end of the seventeenth century. According to this, in 1683, the village of Tustrup consisted of 10 farms and 3 houses with land. The total cultivated and surveyed area of the village corresponded to 4259 tønder (581 acres) of land, i.e. each farm covered around 40 tønder (55 acres) of land, which was a considerable size for a farm. This must have been due to the very poor quality of land in the area, as there were around 10 tønder (14 acres) of land in a tønde hartkorn, which otherwise only applies to the least fertile heathlands of Central Jutland. The cultivated area in Nørager parish, which Tustrup is located in, was 31% in 1683. Village land register no. 1046 in Christian V’s land register states in the introduction that the common fields of the village of Tustrup were divided up into eight surge (fields), so that it had the same cropping system with surge as most other villages in Djursland. Three of the surge contained rye, two buckwheat and the remaining three surge were fallow areas, i.e. for grazing the livestock of the village.

There are unfortunately only a few field names relating to Tustrup in the village land register, and nor does the later Original 1 enclosure map surveyed in 1793/94, a copy of which dating to 1816 has survived, include field names. Fortunately, however, based upon the surge names in the village land register, we can tentatively identify the names of the various parts of the village field. The survey in 1683 must have started to the north of the village in Nøve Vangen, followed by Øster Vangen, Havre Vangen, Østre Lyecher Vang, Lushøys Vangen, Synder Toft Vang and Schouts Lands Vang, and finally the surge with the interesting name, Steen Gaards Vang (‘Stone farm’s surge’). This order must indicate that the survey began to the north of the village and moved to the east, south and west around it, finally ending up on the westernmost side of the village field at Steen Gaards Vang.

In the village land register, Steen Gaards Vang is recorded together with the two other surge, which were fallow land in 1683. The ridges and furrows in the surge are all described as running north-south, in total consisting of the three surge made up of 112 ridge and furrows. Steen Gaards Vangen must therefore have been the last of the fields that was surveyed. They are almost all rated as so-called poor or poorest buckwheat soil of red or white sand with gravel and stone, i.e. the worst soil rating in the land register. It should be noted that the ridge and furrow areas were interrupted by areas of heather. The information about the soil corresponds well with the modern soil description.

If we turn to Tustrup in 1793/94, when the village was enclosed, we can obtain information about the megalith area from a 1816 copy of the Original 1 map (Fig. 1.7). On this map, the area is shown without a symbol, i.e. as cultivated with soil of a quality rating 2, which is very low indeed, considering that the highest rating was 24. As the village lands were reorganized (stjerneadskiftet) without this leading to a scattering of the farms, there was still over 1 km from the nearest farm in the village to the archaeological remains. On the east side of the monument area there is a wetland – Offermosen – which is recorded on the map as having a rating of 1/8, corresponding to an uncultivated pasture area (Fig. 1.7). The considerable distance to the village must have meant that even after 1794 the area was less intensively utilised, whilst the more intensive use of the arable land was undertaken closer to the village. At the time of enclosure, the mound containing the passage grave was used as a viewing point and the boundary between matrikels 2 and 9 passed through the top of it (Fig. 1.7).

The next map of the area is det høje målebordsblad from 1874 (Fig. 1.8a). On this, the area containing the megaliths is not marked with a symbol, i.e. it is cultivated land. The surveyors of the land focused on its use, as a small area in the northernmost part of the map section is marked with the symbol for heather. In the next series of maps, det lave målebordsblad from 1910, there is now a heather symbol on the entire megalith area (Fig. 1.8b). But 40 years later, on the early 4 cm map from 1950, the area contains conifers (Fig. 1.8c). The earliest aerial photo of the area – Basic Cover from 1954 – shows a newly ploughed field, which catches the eye as a light, wide band 180 m long and 20 m wide (Fig. 1.9). 1954 was the year during which the ritual enclosure was excavated, and the excavation area is also visible in the photograph. It can be seen just above the light-coloured band, immediately to the right of where the...
with an arrow – is the excavation of the ritual enclosure.

The main results of this short description and analysis of the use of the area over time can be summarised as follows: In the seventeenth century, the area was predominantly grassy heathland with a certain degree of ridge and furrow. During the course of the 18th century, the area was probably more intensively cultivated, so that at the time of enclosure in 1793/94, it was mainly cultivated with a system of north-south-oriented ridge and furrow fields. When it was enclosed in 1793/94, the megalith area was still over 1 km from the village. In addition, as the area was characterised by poor-quality soils and was inaccessible due to the wetland area of Ósterlarsøn to the east, all of the evidence suggests that it was abandoned as arable land in the nineteenth century and used for grazing instead, with heather appearing in some places. In the twentieth century and until the monument area was designated with protected status in 1956, the area continued to be used for grazing and resting cattle. The newly ploughed belt, which can be seen in the aerial photograph from two years before, may well have been made using the new technology – the tractor (Fig. 1.9).

1887-1952 – before the Tustrup campaign

On 6 September 1887, the three megalithic tombs were designated as protected. The two landowners who were involved received a total of 140 Danish kroner from the Directions of the Preservation of Antiquarian Monuments. Apart from the protection document, we do not know of any other sources associated with the granting of protected status. The earliest examples of the protection of ancient monuments in a parish were often the result of contact between the landowners and those surveying the archaeological remains within an area. But at Tustrup in Nørager parish, another four years passed before the first individual responsible for recording archaeological remains, J.V. Nissen, appeared in 1891. As early as 1887, however, he was an official at Tustrup, as his signature is present on and provides evidence of the validity of the documents declaring protected status (Fig. 1.10).

The first national registration of Denmark’s archaeological remains began in 1873 and was completed in 1930. It is known as the district surveys – in Danish herredsrejserne. Each parish was visited by an archaeologist or an archaeological expert, and initially an illustrator was also involved.

Jacob Vilken Nissen (1835-1902) was a teacher in Ramten, which is 10 km south-east of Tustrup (Fig. 1.11). In 1895, he retired and then moved to Randers, Ramten-Nissen, as he was also known, had broad cul-
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In addition, Nissen participated in the registration of archaeological remains in the districts, and travelled to all the districts in Djursland, apart from Mols. In 1888-1894, he visited all the parishes except two in the five districts, a total of 61 parishes, recording archaeological remains, mainly burial mounds and megalithic monuments. He identified around 370 of the latter, which he carefully and expertly described. Nissen usually drew a plan of each dolmen or passage grave. This resulted in c. 200 drawings. Using simple symbols, the drawings show particular relationships, which are commented on in the accompanying texts. These texts are often very long, as Nissen’s descriptions are very detailed and often include associations with other archaeological remains. Nissen’s plan of the Tustrup round dolmen is assessed in the following chapter.

He visited Tustrup again in 1891, this time in connection with the district surveys. He carefully described the structures and produced a drawing showing the three megalithic structures (Fig. 1.12). These descriptions are very informative and useful in relation to the condition of the remains, for example, stating that the removed capstone of the passage dolmen lay nearby.

When all archaeological remains worthy of protection and still not protected became safeguarded by a law in 1937, possible candidates for protected status had to be inspected and selected. This new national registration – the scheduling surveys – which the National Museum – the popular name of the Museum of Nordic Antiquities, which since 1892 has been called the National Museum. He also carried out archaeological excavations, including trial excavations of castle mounds for the National Museum.20

In 1945, the archaeologist Povl Simonsen (1922-2003) visited Tstrup in connection with the scheduling surveys, concisely and objectively describing the protected monuments. The archaeological remains were in the same condition as they had been when J.V. Nissen visited them in 1891.

1953-1961 – the Tustrup campaign

In 1953, farm owner Hans Nielsen had started to expand his agricultural area in the Tustrup area by taking the adjacent heathlands into use. It became apparent that there was one place where there were a number of large stones.21 When he was given permission to blow up the stones and therefore also to use the necessary explosives, he immediately blew up the first five-six stones that he had dug free.1 (Carl Vindberg Jensen) accidentally bumped into him one day in ‘Brugsen’, and when he told me what he was involved with and where it was, I immediately became interested. Perhaps he himself had a slight suspicion that there was something unusual there, as he said, when he removed one stone, new stones continued to appear. He knew that I was an amateur archaeologist and that is why he told me about it, and when I asked his permission to investigate the remains more closely, he was immediately willing.19

Carl Vindberg Jensen (1887-1978) was 66 years old at this time (Fig. 1.13) and lived in the nearby village of Nørager. He had twice emigrated to Canada, attempting to settle there as a newcomer, helping open up the prairies, so had considerable experience of moving large stones.20 These were practical skills which he was subsequently able to use at Tstrup, where – Poul Kjærumb informed me he was very adept at moving and handling large stones.20 Carl Vindberg Jensen’s interest in and familiarity with prehistory meant that after a test excavation, he could inform Professor P.V. Glob at the Forhistorisk Museum in Aarhus in a letter dated Thursday 3 December 1953: ‘I guessed it was… or a burnt down house, but in that case why was there a covering of stones and arrangement of kerbstones?’ Furthermore, it may perhaps have a ceremonial association with the nearby passage grave. ... If you, professor, believe that the find is of more than just local interest, I hope to hear from you in the near future.” Here – before the museum had even become involved – Carl Vindberg Jensen proposed and anticipated the interpretation which has subsequently become generally accepted.

P.V. Glob sent two of his archaeological staff, museum assistant Jytte Lavsen and undergraduate Peder Mortensen, to Tstrup on Monday 7 December, and as they immediately confirmed the sensational nature of the remains, an excavation was planned for the coming year, 1954.

Tstrup was located within the area of responsibility of Randers Museum, and the Forhistorisk Museum also offered the museum in Randers the opportunity to undertake the excavation. But the employees of Randers Museum opposed the idea, due to the museum’s lack of available funds and staff for such a project. Carl Vindberg Jensen had also written to Randers Museum before sending the letter the Forhistorisk Museum, but did not receive a reply.22

A professorship in prehistoric archaeology was established at Aarhus University in 1949. This was taken up by the dynamic and charismatic P.V. Glob (1911-1985), who also became head of the Forhistorisk Museum, now Moesgaard Museum. A fertile archaeological research...
greatest archaeological discovery of his life: the cult house at Tustrup. Before the museum archaeologists had seen it, he interpreted the newly discovered structure as a building that had been involved in a cultic interaction with the passage grave in the Neolithic period.

Fig. 1.13. Carl Vindberg Jensen (1887-1978) was in his mid-sixties when he made the greatest archaeological discovery of his life: the cult house at Tustrup. Before the museum archaeologists had seen it, he interpreted the newly discovered structure as a building that had been involved in a cultic interaction with the passage grave in the Neolithic period.

The following year, in 1954, the 27-year-old archaeologist was employed as a curator at the Forhistorisk Museum. One of Poul Kjærums first tasks was the excavations at Tustrup. As early as the excavation of the ritual enclosure in 1954, Poul Kjærumb was aware that a more comprehensive understanding of this could only be achieved by excavating the whole site, i.e. the three protected megalithic tombs and the round mound, as well as the area between them. The campaign ended up lasting for four seasons, 1954-1957. The ritual enclosure, passage grave, passage dolmen and round dolmen were excavated and restored in that order. Finally in 1957, the round mound was excavated and restored, and the area between the five ancient monuments was investigated with several closely placed trial trenches, which covered 40% of the area.

Poul Kjærumb took part in the whole process, along with Carl Vindberg Jensen. In 1956-57, six workers were also employed, mainly to undertake work in the trial trenches. Several young archaeologists, archaeology students and volunteers also participated in the excavations. The costs of excavations, specifically the wages, were covered by the Forhistorisk Museum, although the six workers were employed as part of a job-creation scheme and paid by the state and municipality.

The excavation technique that was used involved digging off the surface in specific areas combined with sections, a method based on a Dutch model that had been introduced by young archaeologists after the war. Harald Andersen’s excavation of a long barrow at Goethe on Zealand was probably the first of this type. The three protected megalithic tombs at Tustrup were not completely uncovered, with at least a quarter of the areas left untouched. The equipment that was used for documentation included dumpy levels, tape measures and folding rulers. Photography in black and white was undertaken using 13 x 18 cm glass plates (Fig. 1.14) and colour photography involved 60 x 60 mm shots. The reports are available online.

The sensational find of the ‘cult house’ and its presentation in the newspapers aroused much public interest in the excavations at Tustrup, which were visited by hundreds of people. Shortly after the Tustrup campaign began in 1954, work was already in progress to protect the area containing the archaeological remains and improve access by constructing a path across the valley of the watercourse. Local interest led to Gjesing-Nørager parish council deciding to purchase the two plots of land containing the archaeological remains in September 1954. The following year, the Forhistorisk Museum raised the issue of protection and after a few meetings with the relevant parties, on 9 April 1956, the Protection Board – Fredningsnævnet – of Randers County announced the decision concerning the protection of a 17,275 m² area containing the ancient monuments and a 2 m-wide path to it from the parking place (Fig. 1.15). The three landowners who were involved received a total of 2,700 Danish kroner in compensation.

In the summer of 1961, Poul Kjærumb and Carl Vindberg Jensen undertook a subsequent small-scale excavation of the passage dolmen. Before the excavation, Poul Kjærumb wrote to Carl Vindberg Jensen: ‘see you in the hunting grounds. We hope the results are good.’

The period after the Tustrup campaign

In 1963, the Forhistorisk Museum was in the process of moving from Aarhus out to the manor house, Moesgaard, where large outdoor areas were available for a ‘prehistoric park’. The park ended up containing erected ancient remains which could not remain in their original locations, as well as copies of prehistoric houses. A reconstruction of the Tustrup ritual structure as it was thought to have looked at that time was also included (Fig. 1.16). When the first prehistoric exhibition opened at Moesgaard in 1970, Tustrup was
also well represented, with several clay vessels and clay spoons from the ritual structure.

The monument area at Tustrup was significantly improved from a social and recreational perspective, after in 1975, 1976 and 1980, Rougsø Municipality purchased extensive parts of the surrounding areas, which were mainly meadows or woodland. Gjesing-Nørager Municipality had also previously bought land next to the area containing monuments in the 1960s (Fig. 1.17). The large numbers of visitors resulted in damage to the archaeological remains, damage that was recorded in a 1982 plan focusing on the care of the monument area. The passage grave was especially badly affected where the passage opens out at the facade stones. Here, where a few stones were missing on both sides, Kjærum had sealed the holes with stacked turfs. These had now worn and eroded away, so that the earth from the mound had moved downwards and lay in a pile at the entrance. This was repaired the following year by erecting pieces of timbers in the corners. The opening after a missing orthostat at the bottom of the passage dol-
In 1887, the Tustrup round dolmen was protected. In 1989, a split orthostat in the passage dolmen was secured with four stainless steel bolts. This was old damage that dated back to before the monument was erected in the 1950s-1980s. Poul Kjærum suggested that they functioned as mortuary houses containing actual graves, based on the presence of a rectangular area covered by burnt flint and lined with stone slabs at the Frederik ‘cult house’, as well as the oblong pit in the north-western wall of the ritual enclosure at Tustrup. C.J. Becker, on the other hand, argued that the ‘cult houses’ were sanctuaries or a kind of temple rather than burial structures, because bones and typical grave goods in the form of amber beads and lithic artefacts were absent. Based on similarities in the pottery, the ceremonies at the ‘cult houses’ have also been interpreted as a regional variation of votive offerings associated with the megalithic tombs. Alternatively, these structures may have played a role in rites of passage. The rich ceramic inventory, especially the pedestal bowls and ladles, have been associated with rituals, including feasting, and related to entering and exiting public monuments. Another lengthy discussion has focused on the date of the pottery from the ritual enclosure at Tustrup and the other ‘cult houses’, as well as the use of these collections in chronological analyses. As mentioned above, a partial re-exca- vation of the ritual enclosure at Tustrup constituted part of preparations for this publication and was followed by a new interpretation of the construction. Based on these new results, the Danish ‘cult houses’ were re-evaluated in a recent study.

The three megalithic tombs at Tustrup are important in several respects. The passage grave has the second largest chamber of all passage graves in Jutland, as well as a side chamber attached to the main chamber. The two dolmens, their architecture and the question of whether mounds were included in the monuments have been the focus of a recent examination. The local and regional significance of this cluster of monuments has also been addressed in a recent study, together with a discussion of the identity and social affiliations of the builders. Finally, an area in the vicinity of the Tustrup site was recently investigated with ground-penetrating radar in the hope of finding a causewayed enclosure, but such a structure was not identified.

Research history

Anne Birgitte Gebauer

Ever since its discovery in the 1950s, Tustrup has been one of the key sites of the Danish Neolithic, because of the unusual combination of a ritual enclosure and a group of megalithic tombs. As an important feature of the early farming communities, the Tustrup site has been incorporated in most overviews of Danish prehistory. Tustrup has also been included in several studies of the Funnel Beaker Culture and contemporary periods of the European Neolithic.

Tustrup has played a significant role in the ongoing discussion of the function of the ‘cult houses’, as a small number of similar structures were uncovered in the 1960s-1980s. Poul Kjærum suggested that they functioned as mortuary houses containing actual graves, based on the presence of a rectangular area covered by burnt flint and lined with stone slabs at the Frederik ‘cult house’, as well as the oblong pit in the north-western wall of the ritual enclosure at Tustrup. C.J. Becker, on the other hand, argued that the ‘cult houses’ were sanctuaries or a kind of temple rather than burial structures, because bones and typical grave goods in the form of amber beads and lithic artefacts were absent. Based on similarities in the pottery, the ceremonies at the ‘cult houses’ have also been interpreted as a regional variation of votive offerings associated with the megalithic tombs. Alternatively, these structures may have played a role in rites of passage. The rich ceramic inventory, especially the pedestal bowls and ladles, have been associated with rituals, including feasting, and related to entering and exiting public monuments. Another lengthy discussion has focused on the date of the pottery from the ritual enclosure at Tustrup and the other ‘cult houses’, as well as the use of these collections in chronological analyses. As mentioned above, a partial re-exca- vation of the ritual enclosure at Tustrup constituted part of preparations for this publication and was followed by a new interpretation of the construction. Based on these new results, the Danish ‘cult houses’ were re-evaluated in a recent study.

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