# ARCHAEOLOGY AND RITUAL: A CASE STUDY ON TRACES OF RITUALISATION IN ARCHAEOLOGICAL REMAINS FROM LINDÄNGELUND, SOUTHERN SWEDEN

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Abstract: The aim of this article is to discuss traces of ritualised actions in archaeological material. The basis for the discussion is the archaeological site Lindängelund, near Malmö, in southern Sweden, where recent excavations have revealed a large settlement complex dating from Neolithic, Iron Age and Early Medieval Times. I focus here on the period 150 BC-AD 300, in which traces of ritualised actions stand out in the archaeological record, represented by wooden poles/artefacts, assemblages of animal bones, sherds of pottery vessels, etc. It is suggested that a small wetland area with wells/waterholes containing ritual waste, lying next to the Iron Age village, was used as a ceremonial place for ritual feasting. Later on in the same period, as traces of ritualisation decline in the archaeological record at the central place, similar deposits of ritual waste have been found in private wells on big farm sites. This shift in the ritualisation strategies is suggested to reflect a strengthening social competition between the leading families in the village.

**Keywords**: archaeology, Neolithic Era, Early Iron Age, ritualisation strategies, ritual killings and feasting

# INTRODUCTION

This article is concerned with the identification of traces of ritual actions in archaeological material. In previous research rituals were mainly linked to sacred phenomena. However, in later years this approach has been criticised by scholars in the field of ritual theory, who from a practice perspective see rituals as a social activity with its own participants. Thus, the criteria often used to separate rituals from acts performed in everyday life – that is, their formalism, constancy and repetitive character – can also be used to describe other types of social actions (Bell 1992: 88–93, with reference to, for example, Julian Huxley 1966). What Catherine Bell is interested in is why certain actions distinguish themselves by being ritualising, and thus are assigned greater importance than other social acts. Here she compares the qualities of the ritual with a kind of separation strategy, which also includes the ritualisation of agents (ibid.:

140–142, 220). Through its qualities the ritual creates and reproduces social relations, for example, hierarchical relations. The ritual becomes a strategy to create and maintain power relations, i.e., a strategy to keep social control (ibid.: 169–181). On the other hand, ritualised actions are not to be seen as instruments of social control, but rather require both the consent and, to some degree, also resistance of the participants (ibid.: 200–221).

Swedish archaeologist Ann-Britt Falk has tried to use the concept of ritualisation in her thesis on building sacrifices (Falk 2008). According to Falk, there are several benefits in using ritualisation as an analytical concept when reading the archaeological record. One of the benefits is that the focus is moved from the meaning of the ritual to the social action as such, which we know was actually performed. By applying a ritualisation perspective, new questions can be addressed to the actions themselves. What characterises the ritual? How does it change over time and why? Why were rituals carried out, in what context and in whose interests (ibid.: 55)? Here Falk emphasises changes in the archaeological record as a point of departure for the analysis, as change gives an opportunity to confront different records with each other. Thus, changes in the structures or patterns of the archaeological record could be interpreted as changes in meaning (ibid.: 59).

The aim of this paper is to discuss the possible traces of ritual actions in archaeological material, and to explore how people in the past used ritualisation as a strategy for social change. The point of departure is taken in recent excavations of a settlement complex at Lindängelund, Malmö, in southern Sweden (Fig. 1), dating from the Neolithic and Iron Age to Early Middle Ages (c. 3000 BC–AD 1200).



Figure 1. Location of the Lindängelund site, Malmö. Map by Henrik Pihl 2013.

#### THE ARCHAEOLOGICAL SITE

The excavations at Lindängelund were carried out in 2008–2010, by the Swedish National Heritage Board excavation department in Lund. During three seasons an area of some 90,000 square metres was excavated (Strömberg et al. forthcoming; Carlie & Lagergren forthcoming). Altogether, remains of about 70 houses were found, mostly post-built longhouses, but also outbuildings and pithouses. In two periods, 150 BC–AD 300 and AD 700–1100, when the population was slightly bigger in the area, the farms probably belonged to a village-like structure. It is also during these two periods that traces of possible ritual actions are more profound in the archaeological record (Strömberg & Carlie 2012; Schmidt Sabo & Söderberg 2012).

In this article I will focus on the period 150 BC-AD 300, during which the settlement was organised in three phases as a dispersed Iron Age village. In the first phase, c. 150 BC-AD 1, it consisted of four farmsteads. Three of them were large units, consisting of a multifunctional longhouse, 25 to 35 metres long, with four or five rooms. One of the farms, located in the northern part of the village, stands out, as it had a separate granary and its own well on the plot.

In the two following phases, from AD 1 to c. AD 300, the village consisted of five to six units. During this period several changes occurred in the settlement. Besides a greater variation in house sizes, from 15 to 40 metres, some farm sites were given a more structured organisation by adding a post-built fence surrounding the plot, complementary buildings or its own well. Some farms were also distinguished for having a burial site on the plot. It is highly likely that these changes in size and organisation indicate an increase in social differences between households.

There was a small wetland area in the vicinity of the Iron Age village. As the peat layer was removed during the excavation, numerous wells/waterholes of different sizes were found in the ground. None of the excavated structures contained any wooden or stone constructions, for example, to support the earth walls or to sift the water. Therefore the structures should not be characterised as wells in the proper sense, but rather as some kind of water sources. Thus, in the following they are called wells/waterholes.

The structures consisted of a pit dug in the ground to reach the water-bearing sediments. They usually had a round shape, between 1.5 to 3 metres in diameter. However, there were also larger structures, c. 10–12 metres, containing several small wells/waterholes. Based on radiocarbon dating, the wells/waterholes had been constructed over a very long time, from c. 3300 BC to AD 1200.

Many wells/waterholes contained archaeological material, consisting mainly of animal bones and wooden poles/artefacts, but also finds of pottery, grind-

ing- and hammerstones, fossils and human bones. Some wells/waterholes also contained huge amounts of fire-cracked stone. The most numerous and complex archaeological record was found in three areas of wells/waterholes contemporary with the Early Iron Age village. Judging by radiocarbon and pottery dates, most depositions dated from the period 150 BC–AD 150. In the 2nd century of our era, the activities seem to have decreased or were perhaps exercised more sporadically. This could indicate a change in the functions of the site.

# TRACES OF RITUAL ACTIONS

There are many traces of action in the archaeological record from Lindängelund that may represent ritual acts. However, as human practice may be seen as acts in a continuum of formalism, from everyday routines to formal ceremonies, we cannot equalise a high degree of formalism with ritual. Instead, we may apply Catherine Bell's concept on ritualisation, based on the idea that all acts can be ritualised to make them more important (Bell 1992). Thus, ritualised actions could be carried out on special occasions or at particular places, which were not accessible to everyone. Strategies of ritualisation also often include material things, as, for example, objects, particular clothing or buildings with a special function – all categories that can be identified in the archaeological record.

A way of identifying strategies of ritualisation in the archaeological material could be to look for special objects or features at a site, in what context they appear and if the spatial distribution shows particular patterns that may indicate some kind of separation from everyday activities (Berggren 2010: 114–123). Furthermore, as meaning created by ritualisation is relational, the relations between people, places and things are part of these acts, reflected in the archaeological record (ibid.: 379–380).

There are in particular two find categories from wells/waterholes at Lindängelund, which due to their special character may reflect traces of ritual actions: wooden poles/artefacts and bones from human skeletons (Fig. 2). These two categories were mainly found in wells/waterholes lying in or near the small wetland area, which could indicate a ritualisation strategy. This assumption is supported by the spatial distribution of other find categories in the archaeological record, such as animal bones, pottery and grinding-/hammerstones, which appear not only in the same area but also in the same archaeological contexts (Figs. 3–4).

In the following I will discuss four categories in the archaeological record, which due to similarities in spatial distribution and specific traces of practice probably reflect ritualisation strategies.

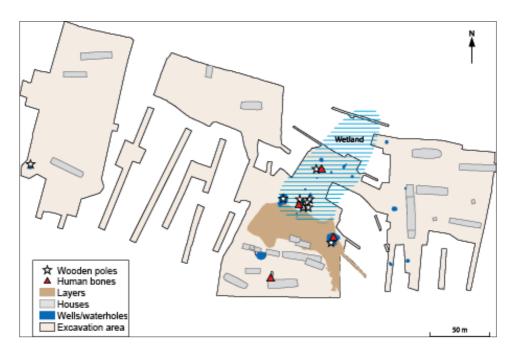


Figure 2. Spatial distribution of wooden poles and human bones at Lindängelund.

Illustration by Henrik Pihl 2013.

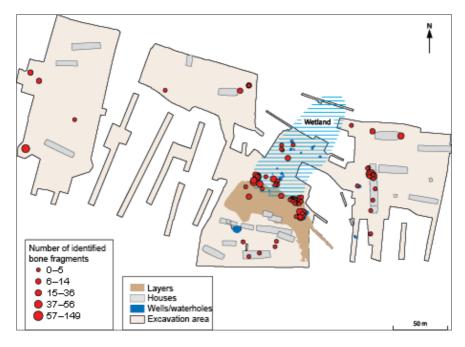


Figure 3. Spatial distribution of animal bones at Lindängelund. Illustration by Henrik Pihl 2013.

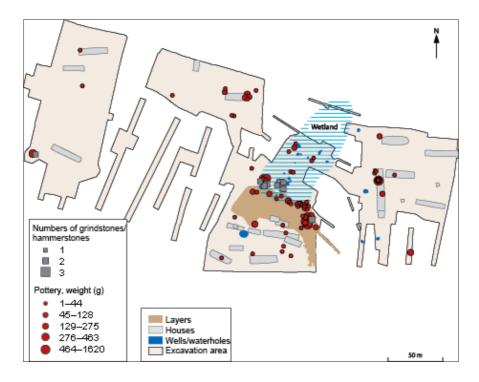


Figure 4. Spatial distribution of pottery and stone artefacts at Lindängelund.

Illustration by Henrik Pihl 2013.

# PRACTICES WITH WOODEN POLES/ARTEFACTS

Altogether fourteen finds of wooden poles/artefacts appeared in the wells/waterholes that dated from the Neolithic to the Viking Age. An interesting feature that reappears over time is that the objects were found in a standing position, having been hammered into the bottom of the waterholes. Thus, the poles/artefacts were put in place when the waterholes were dug, which indicates that they were part of some kind of foundation rituals.

In the Neolithic and Bronze Age, the people at Lindängelund used natural branches or small stems sometimes chopped at the base in the rituals (Fig. 5a). In the Early Iron Age, the practice changed and, instead, people used different wooden artefacts, complete or in parts. Among the objects found at Lindängelund, where it has been possible to interpret their functions, there is an ard share, a wooden nail and the axle of a small cart. The first two objects date back to the Early Iron Age, while the latter dates from the Viking Age (Figs. 5b–d).



**Figures 5a-d.** Examples of wooden poles/artefacts from wells/waterholes at Lindängelund: a) natural stem – Early Neolithic; b) wooden nail – Early Iron Age; c) ard share – Early Iron Age; d) axle of a cart – Viking Age. Photos a, c–d by Anne Carlie 2009 & 2010, photo b by Håkan Svensson 2010.

In the case of the ard share, it was found, stuck into the ground, with the point downwards, in the bottom of a small well (Fig. 5c). At the time of deposition the share, which was made of oak, was new and almost unused, with only discreet traces of wear and some marks of fire. This could indicate that the share was used in other rituals before being placed in the well/waterhole (Fig. 6) (Carlie & Lagergren forthcoming: Appendix 3).

In archaeological literature finds of complete or partial ards in wetlands have often been interpreted as having been deposited in connection with ritual ploughing. In support of this interpretation, archaeologist P.V. Glob emphasises that many of the objects were not designed for practical use; i.e., they are incomplete or made of soft wood, which makes them unsuitable as working tools. But there are also examples of tools that are completely worn out (Glob 1951: 104–105).

The ard share from Lindängelund perfectly fits into this picture. As mentioned above, the share was not only practically unused, but was also made of oak sapwood, which is not as resistant to wear as heartwood (Melin & Linderson forthcoming). Furthermore, it had marks of fire, indicating that the ritual actions probably included the use of fire. In this context it seems likely that the ard share, before it was placed in the well, was used in ritual ploughing, perhaps in order to fertilise Mother Earth to ensure soil regeneration, fertility and regrowth.

Many of the wooden items from wells/waterholes are difficult to interpret in terms of function. Thus, a four-sided pointed artefact could either have been used as a wooden nail to fix road planks to the ground in waterlogged areas, or it may have been used as a tethering pole (Fig. 5b). Also, there is a pointed tool which, judging by the use wear, was probably used as a digging stick (ibid.). The wheel axle mentioned above was found in a well situated at a short distance from the small wetland. It is radiocarbon-dated to the Late Viking Age and is thus between eight and nine hundred years younger than the ard share (Strömberg et al. forthcoming: Appendix 7). The almost complete axle was found in a standing position in the middle of a well basket, where it had been hammered down some twenty centimetres into the underlying subsoil. This position, as in the other cases from the small wetland, indicates that the axle was deposited in the well basket in connection with inauguration rituals. The axle, made of beech wood, is likely to have belonged to a small wagon or cart with spoked wheels (Melin & Linderson forthcoming). Unlike the ard share above, the axle had extensive traces of wear, i.e., it had been in practical use before it was deposited. Could it be that the wheel axle had been a ritual object used in fertility rites before it was placed in the well?



Figure 6. Ard share dating from the Early Roman Iron Age. The share is 65.5 centimetres long.

Photo by Staffan Hyll 2012.

In the Norse sources there are several examples of stories where gods and goddesses travel in chariots in processions of a religious character. In the *Flatey Book*, a medieval Icelandic script on the old Norse kings, there is a story about a young priestess who would go, with God Frey's image placed on her wagon, around the villages to secure the year's growth and crop for the farmers. A young man named Gunnar followed her on the trip. The party was taken by surprise by bad weather and stopped to rest. This angered the god, who wrestled the young man down. When Gunnar felt his strength decline, he swore in his mind that he would have himself converted and serve King Olav Tryggvasson. Then the devil that had lived in him disappeared and Gunnar broke the image of Frey into pieces, and it became a lifeless block. The story ends with Gunnar and the priestess managing to escape back to Norway, to be baptised by King Olav (after Näsström 2009: 273–274).

Regarding the use of wagons, one can also recall the much older Nerthus cult, which according to the ancient writer Cornelius Tacitus was practised by some Germanic tribes, who probably lived in today's Schleswig-Holstein, Jutland and the surrounding islands (Tacitus 1969: 144–145). Also, in the cult of Goddess Nerthus, whom Tacitus compares with *Terra Mater* – Mother Earth – there is a story about a procession in which the goddess, accompanied by a

priest, travels around in a holy chariot drawn by cows. The description has been interpreted by various scholars to mean that the goddess, or rather an image of the goddess, was taken around the villages by her servants to promote the fertility of humans, animals and fields (ibid.; Näsström 2009: 273).

In this context, religion historian Britt-Mari Näsström has drawn attention to Tacitus's statement which claims that when the festivities were held there was "peace and quiet" (pax et quies) (Tacitus 1969: 90–91). The Germanic word for peace (in Swedish frid) actually derives from a verb meaning "to love", which according to Näsström shows a direct link to sexuality and the time when all living beings could reproduce (Näsström 2009: 274).

Thus, there is plenty to indicate that ritualisation strategies at Lindängelund were conducted in connection with religious ceremonies, in which fertility rites were a dominant feature, in order to ensure the continuity of fertility and regrowth of the earth.

In the more than four thousand years that the ritual acts of poles in wet holes can be observed at the Lindängelund site, the rituals changed in character to a certain extent. It is possible that the changing practice of poles in the Early Iron Age, ranging from natural stems to various tools related to tillage and agriculture, reflects new elements and an increased complexity in the rituals. Furthermore, it is possible that changes in ritual practice, besides cosmology and myths, were also based on changes in social structure and social relations. In the following sections I will look more closely into how other traces of ritualised actions stand out at Lindängelund in the Early Iron Age.

# PRACTICES WITH HUMAN BONES

Six finds of human bones occurred in four wells/waterholes, of which three were situated in or near the small wetland. The oldest find is radiocarbon-dated to the Late Neolithic period (c. 2000 BC). It consists of an almost complete skeleton belonging to a five-year-old child. The skeleton, which unfortunately was partly damaged at the excavation, was found in a sitting position with both legs in front of the body. According to the field observations made by osteologist Caroline Arcini, the upper body and head were probably folded over the legs (Arcini & Magnell forthcoming). The forensic analysis of bone marrow from the upper right arm (humerus) shows the presence of diatoms of a similar type as the ones found in reference samples from the well sediment. This, according to professor Henrik Druid from Karolinska Institute, Stockholm, who conducted the analysis, indicates that the child died from drowning (Druid & Risberg forthcoming; Carlie et al. forthcoming).

In the same well/waterhole that contained the child, three wooden poles and three complete digging sticks were also found. The poles had been hammered into the subsurface of the well/waterhole, while the digging sticks were found in the same sediments as the child's skeleton (Carlie et al. forthcoming).

The other five finds of human bones are all radiocarbon-dated to the Early Iron Age (c. 160 BC-AD 75). The human bones are mainly fragments of skulls, but there are also fragments from two femurs (Carlie & Lagergren forthcoming: Appendix 3). The identification of the bones shows that they come from three or four individuals, two of whom were probably of female gender. The individuals were all adults at the time of death (Arcini & Magnell forthcoming). There are no traces of cut marks on the bones to suggest violence. However, gnawing marks on the two femurs show that they had been exposed for some time before being covered with sediments. Of special interest for the interpretation of the human bones are the remains of an almost complete cranium from a woman probably in her thirties (Fig. 7). The skull was found in the same well/waterhole as the ard share mentioned above, but in the sediments in the well, indicating that the two depositions took place on different occasions. The cranium had old fractures and the facial bones were missing, which indicates that the skull was old at the time of deposition. This, along with the absence of violence marks, could indicate that we are not dealing with human sacrifice, but rather with ritual practices of "old" bones, perhaps from ancestral burials.



Figure 7. Human skull belonging to a thirty-year-old woman, found in the same well as the ard share in Figure 6. Photo by Staffan Hyll 2012.

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# PRACTICES WITH ANIMAL BONES

In addition to the ritualised actions with wooden poles/artefacts, the handling and deposition of bones from slaughtered animals is the most prominent feature in the material from Lindängelund. From Lindängelund 1 site alone, some 32 kilos of animal bones including 1,300 identified fragments were recovered. The majority of the bones date back to the Early Iron Age. Most of the bones were found in wells/waterholes, in particular in the small wetland area mentioned earlier, but also in wells at individual farm sites.

Most of the bones were thrown into the wells/waterholes when they were no longer used for water supply. However, one big well/waterhole stands out, which was used for depositions already from the first days of its construction. The osteological analysis shows that the animals selected for ritual killing were mainly domestic animals, especially cattle, sheep/goats, pigs, horses, and dogs. However, there is also a small marine element present in the form of seal bones (Cardell forthcoming). In many societies ritual killing is not associated with rare species, but mostly with animals that form a central part of the economy (Magnell 2011: 194).

The osteological analysis also indicates that young animals in particular were chosen for ritual killings. Here we are mainly dealing with young adults (> 3.5–4 years), but there are also several very young individuals aged between a month and one year (Cardell forthcoming). In the rituals different body parts were deposited. Thus, there are bones both from meaty parts such as from the trunk, represented by vertebrae from the neck, chest and lower back (spine and pelvis), but also bones from parts with less meat, such as the head (skull and jaw) and feet (metapodes and phalanges). Bones from the latter parts are usually seen as debris from slaughter, while bones from meaty parts can be assumed to represent remnants of meals. An examination of the occurrence of bones with cut marks and bones split to extract the marrow shows that most of these bones were found in watery places. This, according to Annica Cardell, supports the assumption that ritual waste from slaughtering and butchering carcasses was thrown into wells/waterholes (ibid.).

As argued above, it is probable that bones from meaty parts come from meals. In addition to these finds there are several examples of very young individuals (a sucking calf and two yearling lambs) which are represented by bones from all body parts. This could indicate that the bodies were cooked in one piece and that these bones also represent remnants from meals (ibid.).

# PRACTICES WITH POTTERY, STONE ARTEFACTS AND FIRE-CRACKED STONES

Besides animal bones, the wells/waterholes also contained finds of pottery and various kinds of stone artefacts. The pottery vessels are in general highly fragmented (approx. 8 kilos, 855 sherds). This is probably due to the ritual handling of the objects, as well as bad preservation conditions and our excavation methods. However, there are also a few finds of almost complete vessels. Among the ceramics there are sherds both from thicker-walled vessels, which were probably used for storage or cooking, and thin-walled, occasionally polished sherds of fine ware. Among the fine ware pottery there are parts of a pedestalled beaker and an almost complete cup – vessels that were probably used as dishes for serving foods and drinks (Brorsson forthcoming) (Fig. 8).

The stone artefacts consist of some thirty items made of rock and flint (Fig. 9). No analysis of the material has yet been performed. Judging by their appearance and traces of use wear, the stone artefacts had different functions. Thus, some stones were probably used for grinding cereals, while others look like hammerstones, although we do not know exactly for what purpose they were used. Similarly to the animal bones and pottery, most of the stone artefacts were found in the same wells/waterholes, indicating that they too were part of the ritualisation strategies. Perhaps the stones were used in the different processes of preparing food and drinks in connection with the ritual meals?

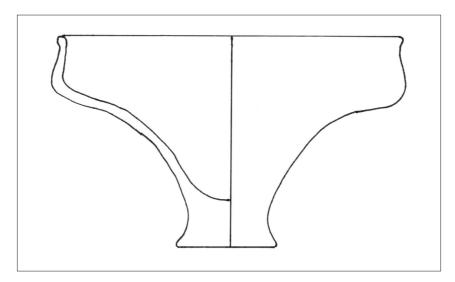


Figure 8. Example of pottery from wells/waterholes at Lindängelund 1: Ceramic vessel – pedestalled beaker. Drawing by Torbjörn Brorsson (forthcoming).



Figure 9. Example of stone artefacts from wells/waterholes at Lindängelund 1: Grindstones and hammerstones. Photo by Staffan Hyll 2012.

A third element that occurs at Lindängelund is large amounts of natural stones, often with traces of weathering or cracking from fire and heating. The stones vary in size, but usually they are the size of a fist. Most stones were found in the fillings of wells/waterholes, both in the bottom layers and along the edges. In the latter case, the stones were probably used to stabilise the moist soil close to water. As for the stones deposited in the centre of the wells/waterholes, the fact that they lie mixed together with bones, pottery and stone artefacts indicates that the stones were part of the rituals as well. We may assume that the fire-cracked stones come from cleaned-out fireplaces. Thus, traces of an activity area with a number of hearths and pits contemporary with the Iron Age wells/waterholes were found on an elevation near the small wetland area. The use of fire-cracked stones in rituals is well known from other ceremonial places, both in wetlands, such as Hindby votive fen (Berggren 2007: 66–78) and Röekillorna in Skåne (Stjernquist 1997), and in a so-called ritual field with hearths and cooking pits (Fendin 2005: 374–378).

To conclude, I present my interpretation of the archaeological record from wells/waterholes at Lindängelund as remains of ritualisation practices, probably related to feasting. The interpretation is based on different characteristics, which have often been used in the anthropological and archaeological literature to identify ritual feasting, such as the selection of special foods, the use of special vessels for preparing and serving food and drinks, as well as for greater

wastage than normal (Hayden 1996: 137–139; Groot 2008: 106–108). Thus, the ritualisation strategies at Lindängelund included not only the selection, killing and butchering of a large number of domestic animals, in particular young individuals, but also the handling of special serving vessels and different stone items. Furthermore, large quantities of ritual waste from the feasting activities – mainly animal bones and fire-cracked stones – were deposited at the site.

# CONNECTIONS WITH CALENDAR FESTIVALS

Certainly, an interesting question in this context is how often the ceremonial site was used for feasting activities. One way to elucidate this issue is to estimate the number of sacrificed animals. Here, a calculation based on animal bones from the two biggest wells/waterholes (features 58377 and 152645), shows that a relatively large number of animals (approx. 50 individuals) were killed and consumed at the site. From feature 58377, there are bones of at least 33 animals, including 12 cattle, 7 sheep, 5 pigs, 4 horses and 5 dogs. Bones from cattle and sheep also dominate in feature 152645. Of the 20 animals represented among the bones from this well/waterhole, 7 are cattle, 5 sheep, 3 pigs, 2 horses and 3 dogs (Cardell forthcoming). Although the above calculations are based on a minor part of the bone assemblage (386 of roughly 1,300 identified fragments), the figures still give some idea of the proportions of animal killings at the site.

One problem that arises when we try to estimate the scale of feasting is that the dating evidence, based on radiocarbon and pottery, gives little guidance as to the time frame of the ritual activities. Are we dealing with many recurrent activities or events in just a few decades, or were the wells/waterholes used for gatherings on special occasions over several centuries? In fact, we do not know and will probably never get a clear picture of this. Therefore, we can only suggest different scenarios.

If we take a closer look at the animals selected for ritual killing, we can conclude that no less than half of the individuals from the two big wells/waterholes are big meaty animals (19 cattle and 6 horses). The ritual killing of a cow or a horse cannot be considered a minor gift, but rather a special killing carried out on occasions when a greater number of people took part in the ritual activities. This could indicate that at least some of the ritual killings were carried out in connection with big religious ceremonies or social events, which required large amounts of food. This type of feasting may have gathered not only the inhabitants of the local village, but also people from villages in the neighbouring area. If the wells/waterholes were used more or less at the same time as the archaeological record and dating suggest, it is also possible that different wells/waterholes were used by people from different farms or villages.

We do not know what the ritual calendar looked like in the Early Iron Age, but it probably resembled the annual festival cycle in pre-Christian times, mentioned in the Old Norse written sources. From these sources we know that the festival cycle contained at least three, but probably four, major religious festivities, linked to the year's four quarters. In the old Norse folk tale *Ynglinga saga*, Chapter 8, Snorri Sturluson recounts: "One should sacrifice (*blóta*) towards winter for regrowth, in the middle of winter for harvest and the third time at the beginning of summer" (after Nordberg 2009: 285).

Furthermore, we know that in addition to the annual festival cycle, which was linked to the lunar year, there were also large religious gatherings which, according to contemporary written sources – Adam of Bremen's *Gesta Hammaburgensis ecclesiae pontificum* and Thietmar of Merseburg's *Chronicon*, both recorded in the 11th century – took place "once every nine years". According to religion historian Andreas Nordberg, there is much evidence that this festival cycle was related to the eight-year cycle of the bound lunar year. This would mean that the very large sacrifices in fact took place every eight and not every nine years (ibid.: 294–295).

# RITUALISED ACTIONS IN SOCIAL EVENTS

If we briefly return to the question of which animals were selected for ritual killing, the analysis of bones from the two big wells/waterholes mentioned above shows that the other half of the sacrifices is small animals: 12 sheep, 8 pigs and 8 dogs. Of these, we may assume that the sheep and pigs were killed for their meat. As for the dogs, however, they were probably killed for other reasons.

Feasts are often part of different kinds of rites of passage, which serve to secure the transition from one social status to another, such as childbirth, weddings and funerals. In traditional societies, the lives of important buildings are also often accompanied by foundation or closure rituals, to promote a long life or a safe transition when the house is abandoned. Different kinds of rituals may also have been practised at events of a more private nature, such as to promote fertility in the event of childlessness or to cure diseases (Carlie 2004: 28–30 and references therein).

There are several finds in the archaeological record from Lindängelund 1, which could be interpreted as parts of rituals in connection with rites of passage, represented by the handling of special, perhaps magical, objects such as fossilised sea urchins, animal skulls and selected human bones (Carlie 2004: 136, 141–143, 155–160).

Another interesting find from one of the big wells/waterholes consists of hemp remains. The hemp has been radiocarbon-dated to the Early Roman Iron Age (AD 55–130) (Carlie & Lagergren forthcoming: Appendix 3). The palaeoecological analysis shows that all parts of the plant are represented in the sample: straws, seeds and pollen. This suggests, according to palaeontologist Mikael Larsson, that the plant remains are probably waste from retting (Larsson & Lagerås forthcoming). Whether retting was done in the well, or the waste was ritually deposited there, cannot be stated with certainty. However, the small amounts of plant material found at the excavation could speak in favour of the latter.

Generally it can be said that hemp was grown in Scandinavia throughout most of the Iron Age, with an expansion during the Late Iron Age and Viking Age, along with the increasing need for materials for ropes in connection with ship construction. Besides ropes, the hemp was also used for making nets, warp yarn and fabrics. After the Viking Age the use of hemp in Scandinavia is supposed to have decreased (Pedersen & Widgren 1998: 381–382).

As for the plant as such, we do not know if people in the Early Iron Age used hemp for its narcotic properties. The fact is that we do not even know whether the kind of hemp that was cultivated in Scandinavia at the time contained such levels of cannabinoids that it could have been used as a drug or for medicinal purposes (see http://en.wikipedia.org/wiki/Cannabis, last accessed on October 9, 2013).

For whatever purposes hemp was grown and used by the Iron Age people at Lindängelund, the find is interesting as the plant remains were probably used in the ritualised actions at the site.

# CHANGES IN RITUALISATION STRATEGIES

Gradual changes can be seen in the archaeological record from Lindängelund dating from the 1st and 2nd centuries AD. In the period when the central ceremonial place was still used for gatherings and feasting, traces of ritual actions began to appear in wells/waterholes at individual farm sites in the Iron Age village.

The archaeological record from these wells shows many characteristics similar to those of the ceremonial place, i.e., assemblages of bones from domestic animals (mainly cattle), sherds from pottery vessels, stone artefacts and clusters of fire-cracked stones. In one case we also found a wooden stick with an edge, hammered into the bottom of a well. From these finds we can conclude that ritual feasting did not take place only at the central place, but also on

individual farms in the village. The question is: why? How should we interpret the changes in ritualisation strategies?

As I mentioned earlier, there are signs in the archaeological record of an increased social stratification between households and farms in the Iron Age village in the first centuries AD. The increasing social and economic differences are mainly manifested in the construction of large multifunctional longhouses, often provided with a small outhouse and a private well. Sometimes these big farms also had a surrounding fence or a private burial site on the plot.

The increased prosperity and social stratification most probably resulted in a growing competition between different households/families in the village, in which ritual feasting was used as a strategy to create or maintain social status and control. What supports this presumption is that the traces of ritualisation in wells on individual farm sites were often related to closure rituals, i.e., as the wells were taken out of use and closed. This could indicate that the ritualisation strategies on single farms were not performed at calendar festivals, but rather at social events related to important transitions or rites of passage. This could have happened when village leadership changed from one family (farm) to another. Hopefully, research continued in this field will shed further light on this issue.

# REFERENCES

Arcini, Caroline & Magnell, Ola forthcoming. Bilaga 8: Osteologisk rapport av humanmaterialet från Lindängelund 1. [Supplement 8: Osteological Report on the Human Material from Lindängelund 1.] In: A. Carlie & A. Lagergren (eds.) Lockarp 44:1 m fl. (Lindängelund 1). Basdokumentation. Bebyggelse och offerplats från yngre stenålder, järnålder samt vikingatid/tidig medeltid, Skåne, Malmö kommun, Bunkeflo socken, RAÄ Bunkeflo 77:1, 78:1, 150, 151, 152 och 153. Arkeologisk undersökning 2010, Del 2 bilagor Kontextbeskrivningar och analysresultat. *Riksantikvarieämbetet UV Rapport 2013:93*.

Bell, Catherine M. 1992. Ritual Theory, Ritual Practice. Oxford: Oxford University Press. Berggren, Åsa 2007. Till och från ett kärr. Den arkeologiska undersökningen av Hindbygården. [To and from a Fen: The Archaeological Excavation at Hindbygården.] Malmöfynd 17. Malmö: Malmö Kulturmiljö.

Berggren, Åsa 2010. *Med kärret som källa. Om begreppen offer och ritual inom archaeologin*. [With the Fen as a Source: On the Concepts of Sacrifice and Ritual in Archaeology.] Vägar till Midgård 13. Lund: Nordic Academic Press.

Brorsson, Torbjörn forthcoming. Bilaga 7: Keramik från äldre järnålder, tidig medeltid och modern tid i Lindängelund 1. [Supplement 7: Pottery from the Early Iron Age, Early Middle Ages and Modern Times at Lindängelund 1.] In: A. Carlie & A. Lagergren (eds.) Lockarp 44:1 m fl. (Lindängelund 1). Basdokumentation. Bebyggelse och offerplats från yngre stenålder, järnålder samt vikingatid/tidig

- medeltid, Skåne, Malmö kommun, Bunkeflo socken, RAÄ Bunkeflo 77:1, 78:1, 150, 151, 152 och 153. Arkeologisk undersökning 2010, Del 2 bilagor Kontextbeskrivningar och analysresultat. *Riksantikvarieämbetet UV Rapport 2013:93*.
- Cardell, Annica 2013. Bilaga 9: Slaktavfall i brunnar och måltidsrester i gropar. Osteo-logisk rapport. Lindängelund 1. [Supplement 9: Waste from Slaughter in Wells and from Meals in Pits.] In: A. Carlie & A. Lagergren (eds.) Lockarp 44:1 m fl. (Lindängelund 1). Basdokumentation. Bebyggelse och offerplats från yngre stenålder, järnålder samt vikingatid/tidig medeltid, Skåne, Malmö kommun, Bunkeflo socken, RAÄ Bunkeflo 77:1, 78:1, 150, 151, 152 och 153. Arkeologisk undersökning 2010, Del 1 Huvudtext och Del 2 bilagor Kontextbeskrivningar och analysresultat. Riksantikvarieämbetet UV Rapport 2013:93.
- Carlie, Anne 2004. Forntida byggnadskult. Tradition och regionalitet i södra Skandinavien. [Prehistoric Building Cult: Tradition and Regionality in Southern Scandinavia.] Arkeologiska Undersökningar Skrifter No. 57. Stockholm: Riksantikvarieämbetet.
- Carlie, Anne & Lagergren, Anna forthcoming. Lockarp 44:1 m fl. (Lindängelund 1). Basdokumentation. Bebyggelse och offerplats från yngre stenålder, bronsålder, järnålder samt vikingatid/tidig medeltid. Skåne, Malmö kommun, Bunkeflo socken. [Lockarp 44:1 etc. (Lindängelund 1). Documentation. Settlement and Sacrificial Site from the Neolithic, Bronze Age, Iron Age and Viking Age/Early Middle Ages.] RAÄ Bunkeflo 77:1, 78:1, 150, 151, 152 och 153. Arkeologisk slutundersökning 2010. Dnr 3.1.1-0781-2010. Del 1 Huvudtext. Riksantikvarieämbetet UV Rapport 2013:93.
- Carlie, Anne & Arcini, Caroline & Druid, Henrik & Risberg, Jan forthcoming. Archaeology and Forensics: The Death of a 4000-Year-Old Child in Southern Scandinavia and its Interpretation. *Antiquity*.
- Druid, Henrik & Risberg, Jan forthcoming. Supplement: Forensic Analysis Concerning the Presence of Diatoms in Human Skeletal Remains from Lindängelund, Malmö. *Antiquity*.
- Falk, Ann-Britt 2008. En grundläggande handling. Byggnadsoffer och dagligt liv i medeltid. [A Foundation Act: Building Sacrifice and Everyday Life in Medieval Times.] Vägar till Midgård 12. Lund: Nordic Academic Press.
- Fendin, Titti 2005. De rituella fälten på Glumslövs backar. [The Ritual Fields at Glumslövs Backar.] In: P. Lagerås & P. Karsten (eds.) *Bronsåldersbygd 2300–500 f. Kr.* Skånska spår arkeologi längs Västkustbanan. Lund: Riksantikvarieämbetet, pp. 366–419.
- Glob, Peter Vilhelm 1951. Ard og Plov i Nordens Oldtid. [Ard and Plough in Prehistoric Scandinavia.] Jysk Arkæologisk Selskabs Skrifter, Bind I. Aarhus: Universitetsforlaget i Aarhus.
- Groot, Maaike 2008. Animals in Ritual and Economy in a Roman Frontier Community.

  Excavations in Tiel-Passewaaij. Amsterdam: Amsterdam University Press.
- Hayden, Brian 1996. Feasting in Prehistoric and Traditional Societies. In: P. Wiessner & W. Schiefenövel (eds.) Food and the Status Quest. An Interdisciplinary Perspective, pp. 127–148. Berghahn Books.
- Larsson, Mikael & Lagerås, Per forthcoming. Bilaga 5: Rapport avseende analyser av växtmakrofossil och pollen från Lindängelund 1. [Supplement 5: Report on the

- Analysis of Plant Macrofossils and Pollen from Lindängelund 1.] In: A. Carlie & A. Lagergren (eds.) Lockarp 44:1 m fl. (Lindängelund 1). Basdokumentation. Bebyggelse och offerplats från yngre stenålder, järnålder samt vikingatid/tidig medeltid, Skåne, Malmö kommun, Bunkeflo socken, RAÄ Bunkeflo 77:1, 78:1, 150, 151, 152 och 153. Arkeologisk undersökning 2010, Del 2 bilagor Kontextbeskrivningar och analysresultat. *Riksantikvarieämbetet UV Rapport 2013:93*.
- Magnell, Ola 2011. Sacred Cows or Old Beasts? A Taphonomic Approach to Studying Ritual Killing with an Example from Iron Age Uppåkra, Sweden. In: A. Pluskowski (ed.) *The Ritual Killing and Burial of Animals. European Perspectives.* Oxford & Oakville: Oxbow Books, pp. 192–204.
- Melin, Karl-Magnus & Linderson, Hans forthcoming. Bilaga 6: Lindängelund 1 och 4, Bunkeflo sn, Skåne. Analys av träföremål från senneolitikum till sen vikingatid/tidig medeltid. Knadriks kulturbygg Rapport 2011:4. [Supplement 6: Lindängelund 1 and 4, Bunkeflo Parish, Skåne. Analysis of Wooden Objects from the Late Neolithic until the Late Viking Age/Early Middle Ages.] In: A. Carlie & A. Lagergren (eds). Lockarp 44:1 m fl. (Lindängelund 1). Basdokumentation. Bebyggelse och offerplats från yngre stenålder, järnålder samt vikingatid/tidig medeltid, Skåne, Malmö kommun, Bunkeflo socken, RAÄ Bunkeflo 77:1, 78:1, 150, 151, 152 och 153. Arkeologisk undersökning 2010, Del 2 bilagor Kontextbeskrivningar och analysresultat. Riksantikvarieämbetet UV Rapport 2013:93.
- Näsström, Britt-Mari 2009. Vem var Nerthus? Spåren efter en gudinna. [Who was Nerthus? Traces of a Goddess.] In: A. Carlie (ed.) *Järnålderns rituella platser*, Utskrift 9. Halmstad: Stiftelsen Hallands länsmuseer, Kulturmiljö Halland, pp. 265–280.
- Nordberg, Andreas 2009. Tid, tideräkning och talsymbolik i Adam av Bremens skildring av kulten i Uppsala. [Time, Calendar and Symbolism of Numbers in Adam of Bremen's Description of the Uppsala Cult.] In: A. Carlie (ed.) *Järnålderns rituella platser*, Utskrift 9. Halmstad: Stiftelsen Hallands länsmuseer, Kulturmiljö Halland, pp. 281–297.
- Pedersen, Ellen Anne & Widgren, Mats 1998. Järnålder 500 f. Kr.–1000 e. Kr. [Iron Age 500 BC–AD 1000.] In: *Det svenska jordbrukets historia. Jordbrukets första femtusen år*. Stockholm: Natur och Kultur / LTs Förlag, pp. 237–459.
- Schmidt Sabo, Katalin & Söderberg, Bengt 2012. Vinna eller försvinna? Avgörande val i bybildningstid. [To Win or Disappear? Decisive Choices at the Time of Village Formation.] *In Situ Archaeologica* 2011–2012, pp. 139–163.
- Stjernquist, Berta 1997. *The Röekillorna Spring: Spring-Cults in Scandinavian Prehistory*. Stockholm: Almquist & Wiksell International.
- Strömberg, Bo & Carlie, Anne 2012. Samhällen i förändring 300–700 e. Kr. ekonomisk kris eller social nyordning? [Changing Societies AD 300–700: Economic Crises or Social Reorganisation.] *In Situ Archaeologica* 2011–2012, pp. 103–137.
- Strömberg, Bo & Carlie, Anne & Lagergren, Anna forthcoming. Lindängelund 4, Malmö kommun, Skåne län. [Lindängelund 4, Malmö Municipality, Skåne County.] Skåne, Lockarps sn, Lockarp 42:1, 43:1 och 24:1, fornlämning 76, 129, 144, 146, 147 & 148, Bunkeflo sn, fornlämning 50 & 92, Lockarps socken. Arkeologisk undersökning 2008–2009. Riksantikvarieämbetet UV Rapport 2013:80.
- Tacitus, Cornelius 1969. *Germania*. Translated by A. Önnerfors. Originalets text med svensk tolkning jämte inledning och kommentar. Stockholm: Natur och Kultur.