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Evidence of animal offerings in Iron Age Scandinavia

Abstract

Written contemporary sources of animal sacrificial rituals in Iron Age Scandinavia are almost non-existent. However, we have some rare descriptions about the people of northern Europe from Roman historians. Most famous of these is of course Tacitus who gives us valuable information about life in Scandinavia during the first century AD. Among other things we learn about fertility rituals carried out in sacrificial bogs and we understand the close connection between the goddess and water. Tacitus' descriptions, as well as younger sources such as the Old Norse religious texts of Scandinavia, also clearly tell us about the magic role of different animals such as birds, wild boar, wolf and horse. In the archaeological material we try to recognize traces of religious acts that once took place. But how can we tell the difference and distinguish between the remains of ritual animal offerings on one hand and the normal kitchen waste on the other? This paper deals with some examples of horse offerings in bogs and ponds and with ritual deposits of animal bones in dry settlement contexts in Sweden. Zooarchaeological analysis gives us valuable data and a key to interpret the animal bone assemblages as evidence of animal offerings.

Introduction

In principle, there are no primary written sources from Iron Age Scandinavia (ca 500 BC to AD 1000). Apart from the rune stones, this era offers no domestic written records describing the lives of the people living on Europe's northern edge. However, there are a good number of descriptions from "outsider" writers, for example Roman chroniclers such as Tacitus (AD 55–120), whose *Germania* is the most frequently cited work. This gives details of, amongst other things, the cult of Nerthus, a goddess who, in the spring, travelled over fields and meadows in a wagon drawn by oxen. According to the description, the cult of this goddess included offerings in sacred lakes not only of carts and draught beasts, but also of humans.[1]

With a wealth of sagas describing events and customs in the times before the establishment of Christianity, northern literature hints at the making of offerings in connection with, for example, sacrifices or victories in battles. However, the value of these sources is limited by their having been written several hundred years after the events they relate. The picture stones from the 5th to 9th centuries AD also tell stories, but not in words. Among several motifs on these stones we can find examples of human sacrifice on some kind of altar.[2]

As regards conditions in pre-Christian Scandinavia, one often-cited source is *Description of the islands in the north* by Adam of Bremen (AD 1040–1081).[3] Adam tells, for example, that, every ninth year, there was a major ceremony in which the bodies of horses and human beings were hung in a sacred grove. This ceremony involved the slaughtering of offered animals, special handling of the blood and the giving of sacrificial gifts to the gods. It also included ritual meals of sacrificed animals and the offering of libations. The sources hint at the strong ties between animals and gods in Scandinavian mythology.[4]

The written sources present the official cult. However, restricted to aristocratic settings, this is a very limited and fragmentary picture. Domestic rituals in the private sphere of more ordinary homesteads are barely touched upon. There is nothing on votive offerings in wetlands and pits or under stones. Consequently, there is an evident discrepancy between the few written sources and the abundant archaeological finds.

[1] Näsström 2009.

[2] Nyhlén 1978, 63.

[3] Adam av Bremen 4.27.

[4] Jennbert 2002.

Fig. 1. Map of southern Sweden showing the geographical position of the case studies mentioned.

Different types of offerings

Archaeological material from settlements and burial grounds should be capable of providing a more detailed picture. But how is evidence of rituals and offerings to be recognized? This is a question that archaeologists often wrestle with when interpreting finds and structures within various cultural contexts. We cherish a desire to be able to distinguish the sacred from the secular. However, there are many difficulties to be overcome here. To begin with, in a prehistoric context, there was no clear dividing line between sacred and profane. The sacred was an integral part of everyday life and rites were observed in various household activities—sowing, harvesting, slaughtering, hunting, fishing, the brewing of beer, the baking of bread, the erecting of buildings and enclosures, etc. Through the making of offerings, there was communication with the sacred world. Votive offerings and ritual deposition gave an everyday object sacred importance, thereby obliterating the distinction between profane and sacred.

The making of offerings can leave evidence in the form of, for example, the deposition of animal bones. Even if animal bones found in archaeological excavations are most often interpreted as food or slaughter waste, other interpretations are sometimes justified. There are hundreds of examples of finds from archaeological excavations being interpreted as evidence of rituals. Yet, what is it that allows a deposition to be regarded as ritual and not just as ordinary kitchen waste? One criterion that is usually emphasized is the absence of functional explanations for a deposition. Other important criteria are the location of the deposition and the special nature or unusual treatment (for example, burning or crushing) of the deposition.[5] It is thus a question of evaluating the combination of artefact and context, i.e. *what* has been deposited and *where*.

Wetlands and various types of interments are the most common contexts for finds of ritual depositions of animal bones. This is a natural consequence of today's finds being whatever has been preserved beneath the surface of the ground. Ritual depositions above ground would not be preserved in the same way. It is thus entirely possible that what we find primarily reflects those ritual observances where the intended recipient of the offering was found either in the water or below the ground.

Animal bones can form part of various offerings—food, gift, protection, booty, etc. In these varying contexts, the offerings can be very different in nature and composition. Applying a simplified interpretation, bones from meaty parts of various animals could be seen as food offerings. Gift offerings could be whole animals sacrificed in a ritual manner and then neither butchered in the usual way (for slaughtered animals), nor eaten. Protection offerings could be specifically selected parts of various animals that symbolically have protective properties, e.g. crania or clawed paws. However, the picture is more complicated than this.

We shall take a closer look at some Swedish examples of various contexts of offerings that include ritual depositions of animal bones (*Fig. 1*). These examples comprise wetland offerings, offerings in wells and waterholes in close vicinity to settlements and dry depositions in pits within settlements. Another large group of finds in this connection (not dealt with in the present paper) is made up of animals offered at burials in both cremation and interment contexts. Such evidence of offerings is less complex in character and, on the face of it, easier to interpret and understand.[6]

[5] Capelle 1985.
[6] Sten & Vretemark 1988.

Fig. 2. Finnestorp votive bog in Västergötland in western Sweden. Offerings were made here from about AD 100 to 600. A lot of horse bones have been found along with metal objects such as weapons and high-quality equestrian equipment.

Evidence of offerings in bogs

From both the Iron Age and earlier, there are many examples of ritual depositions in water and wetlands. Bogs used for making offerings in the Iron Age have been found throughout southern Sweden and Denmark. Discovered in some of these bogs, archaeological artefacts in the form of broken weapons and parts broken from saddles and snaffles have been interpreted as war booty offerings. In other words, the victors offered the gear of the vanquished. Other bogs have yielded household utensils, ceramic vessels and farming implements that tie up with fertility offerings of a more private character in connection with harvests, planting, death, birth, etc. Finds of both these types are sometimes discovered together. This indicates that the bogs were returned to (most frequently from AD 100 to 600) to make offerings for varying purposes. All these votive bogs also yielded varying quantities of animal bones. Some of the most important wetland finds with large proportions of animal bones come from the Skedemosse bog on the island of Öland in eastern Sweden and from Finnestorp bog in Västergötland in western Sweden (*Fig. 2*).

Skedemosse is situated in the middle of Öland. The bog used for offerings was large (400 × 700 m). It is regarded as having been used by people from a wide area and not just the nearest settlements.[7] Around one ton of skeletal material has been recovered and analysed.[8] Most of this (35%) was horse. Cattle and sheep/goats made up 28% and 22% respectively. In addition to bones from pigs, dogs, red deer and a few other wild mammals, there were also human bones from some 40 individuals. In the skeletal material from the neighbouring settlements, horse accounts for only 4–5% while sheep and cattle were totally dominant. There is thus a striking difference between the bog and the settlements. This sets the bog material apart as unusual and specially selected.

Skedemosse has some concentrations of articulated bones from the same individual. This shows that entire animals sometimes ended up in the bog. However, such finds are in the minority. Predominantly, finds are of scattered bones that do not show signs of butchery. Nonetheless, as the bones are not in their articulations, the bodies were most often clearly dismembered before deposition. There is also a certain incidence of butchered bones and bones split for marrow. Coming from horses, cattle and sheep, these are interpreted as meal offerings and remains of ritual meals. A further observation is that the horse skulls show no signs of the death-blow (usually evident as crush damage) normal for slaughtered cattle

[7] Hagberg 1967, 79–81.
[8] Boessneck & von den Driesch 1968.

Fig. 3. Thin cut marks on the horse bones, such as this on a rib, show that the horses were flayed and their flesh cut away before the bones were thrown into the water of the Finnestorp votive bog.

Fig. 4. A horse sacrum from Finnestorp with clear cut marks. These marks may indicate that the tail was cut off.

and horses. This can be interpreted as horses being killed by exsanguination via a cut to the throat. Ritual killing thus used a method different from that employed in normal slaughter.

The votive bog at Finnestorp in Västergötland has been partially excavated at various times. Besides significant quantities of metal objects (weapons and parts of high-quality equestrian equipment), animal bones make up the finds here. The metal finds have been interpreted as war booty offerings from the 4th and 5th centuries AD.[9] However, ^{14}C-dating of the bones shows that offerings were made over a longer period from AD 100 to 600. Thus, the bones could be the result of annual ritual offerings (over several centuries) in a bog that was recurrently used by people from a wide area. The position on the boundary between two central rural settlement districts supports this theory.

Unlike Skedemosse, Finnestorp has yielded almost exclusively (99%) horse bones with a few individual bones from cattle, pigs and humans.[10] With other animal species being negligible here, this is thus a question of horse offerings. Bones from the same animal were only found together in exceptional cases. Otherwise, bones seem to have been scattered with no link to the individual animals and in no anatomical order. The horse bones are often intact and these bones, as well as the fragmented horse bones, show no signs of butchery. However, there are thin cut marks showing that the horses were flayed and their flesh cut away (*Figs. 3* & *4*). This gives the impression that there was conscious care not to damage the bones and that it was important for the bones to remain whole. The make-up of the bone collection shows that all the various body parts are present in the material (*Table 1*).

Based on the evidence of the Finnestorp bones, one possible scenario is that the horses were killed ritually in connection with sacrifices, special festivals, feasting or other important events. The bodies were flayed and the meat carefully cut from the bones. The meat was eaten at ritual meals, which most probably also involved entrails and blood. Subsequently, the bones were deposited in the bog as offerings.

Horses are central in wetland offerings where there are animal bones. This is clearly shown by the two examples presented here, the same picture being given by the Danish counterparts in, for example, Illerup and Nydam.[11] The horse was a special animal in Iron Age Scandinavia, a mediator between man and the world of the gods. In myths, the horse features as a steed of gods and a transporter of heavenly bodies. Horses are associated with warriors, the aristocracy and cults. Most probably, we here see evidence of a horse cult that was widely followed in southern Scandinavia and in which the making of offerings (i.e. the formal practice) was part of the official cult overseen by society's elite.

Offerings in wells and waterholes

By the Eketorp fortress on southern Öland, there is a waterhole where quantities of animal bones deposited between the 4th and 11th centuries AD have been found.[12] More than 50% of the bones are horse. In comparison, kitchen waste from the fortress is largely dominated by sheep, with horse being less common. There is thus a clear difference in the incidence of the species. Skulls, phalanges and caudal vertebrae are over-represented in the horse bones from the waterhole. This has been interpreted as the hides, with heads, hooves and tails intact, having been set up on poles around the waterhole.

[9] Nordqvist 2007.

[10] Vretemark 2004a; 2009.

[11] Ilkjaer 2001.

[12] Backe *et al*. 1993.

Table 1. Number of fragments from different horse bones representing all body parts found in the votive bogs of Skedemosse and Finnestorp. Most of the bones were scattered with no link to the individual animal and found in no anatomical order.

Horse bones	*Finnestorp*	*Skedemosse*
Cranium	27	611
Mandibula	27	294
Dens	145	723
Hyoid		77
Vertebrae	65	1025
Sacrum	5	34
Costae	91	961
Sternum		10
Scapula	14	107
Humerus	16	119
Radius/ulna	9	143
Carpalia	4	380
Metacarpus	8	128
Pelvis	22	129
Femur	21	172
Patella	2	24
Tibia	35	121
Malleolus		10
Tarsalia	13	408
Metatarsus	22	132
Metapod	8	351
Phalanx	16	777
Sesamoidea		424
Total number of fragments	**550**	**7160**

There they remained a while until decomposition resulted in the bones falling into the water. This is linked to the Old Scandinavian tradition of the *nidstang*, i.e. a pole on which a horse's head was set.[13] The waterhole is not large and it is probable that the offerings made here were of a local nature.

Hjärup in western Skåne in southern Sweden is a further good example of Iron Age animal offerings in water contexts near to homesteads. In the 1990s, the excavation here unearthed something that was interpreted as a well for offerings. This votive well was located in the open space just south of the long house. The well, which dates from between the 6th and 8th centuries AD, was surrounded by a number of small hearths. Bones accounted for most of the finds in the open area, but there were also ceramics, part of a millstone and the remains of a pointed oak pole driven into the bottom sediment of the well. Apart from a roe deer metatarsal, the animal bones were from domesticated animals. Cattle dominated, followed by horse, these together making up around 80% of the fragments from the well.[14] Other domesticated animals (sheep/goats and dogs) were represented by a small number of fragments.

The cattle and horse percentage in the material from the well was almost double that in the animal bone material from the rest of the settlement. It was also striking that skull fragments, lower jaws and foot bones dominated the finds. On the bones, there were marks showing that the meat had been cut away. The pointed oak pole that had stood in the well was interpreted as a *nidstang* on which horse or cow hides (with skulls and legs intact) had been hung.[15] The many hearths around the well were interpreted as evidence of collective food preparation for joint cult celebrations and feasting. Leftovers were then thrown into the votive well.

There is a broadly analogous example from Järrestad (in eastern Skåne) where a number of wells from the 9th and 10th centuries AD yielded contents similar to those of the votive well in Hjärup.[16] In Järrestad too, a millstone was found amongst the animal bones. Skulls and lower jaws dominate the bone finds and the incidence of species in the well differed from that in the settlement as a whole by the considerably higher percentage of horse and cattle bones in the well.[17]

Animal offerings in dry contexts in settlements

Based on the available finds, it may be observed that lakes and wetlands were the predominant contexts for offerings in the Iron Age up until the 6th and 7th centuries AD. A change began in the 5th and 6th centuries when the picture became more multifaceted. With the making of offerings being linked to settlements (and, in particular, large homesteads), a new pattern of rituals was emerging.[18] Ritual depositions became more common. This has been interpreted as a new ritual praxis linked to everyday settings partially taking over from an older praxis linked to the landscape.[19] Depositions of animal bones were made in pits, postholes, building founda-

[13] Loumand 2006.

[14] Nilsson 1998, 3ff.
[15] Carlie 2002, 672–675.
[16] Söderberg 2003.
[17] Nilsson 2009, 84–94.
[18] Carlie 2009, 26f.
[19] Fabech 2009, 335–338.

Fig. 5. Building offerings underneath floors, sills and thresholds were quite common during Iron Age in Sweden. These depositions were often animal bones, for example a horse cranium.

Fig. 6 (below). Ritual depositions of animal bones were made in different kinds of pits and stone constructions. In the Iron Age settlement area of Skultorp in Västergötland a number of small limestone chests with lamb bones were found.

tions, wells and hearths. Building offerings (often horse skulls underneath floors, sills and thresholds) were also comparatively common in Iron Age Scandinavia (*Fig. 5*).[20]

Archaeological excavations in central and southern Sweden have yielded several examples of animal offerings in settlement contexts. To show the great complexity and variation in this type of find, two of these examples (from Västergötland and Östergötland) are briefly touched upon here.

The first is from Västergötland. During road construction, there were large archaeological excavations at Skultorp (south of Skövde) between 2001 and 2003. Many Iron Age settlements were investigated. These included areas where there was evidence of rituals.[21] Depositions containing animal bones were found. While most of these were judged to be standard waste material, some were interpreted as votive pits. Examples of interesting features here are five small, buried, limestone chests, dated to the early Iron Age around 400 BC (*Fig. 6*). Two of them contained unburnt and intact extremity bones from lambs. The others were empty. The bones were interpreted as evidence of the making of an offering in which a slaughtered lamb was put into a container and buried, most probably with no consumption of the meat.[22] Could this have been a food offering as part of a fertility rite intended to ensure the homestead's good fortune?

Another example from the same investigation related to a pit with burnt and unburnt cattle and sheep bones, a few

[20] Paulsson-Holmberg 1997; Carlie 2004.
[21] Axelsson & Berglund 2005.
[22] Vretemark 2004b.

burnt human bones and ceramics. There was an iron axe at the bottom of the pit. Around the pit, traces of a wooden structure were most probably left by an enclosure.[23] Partly because of the unusual composition of the finds and partly because of the combination of pit and enclosure adjacent to an open, communal space in the settlement, the whole was interpreted as a votive pit. Another votive pit in the same settlement contained an intact ceramic vessel with the remains of cereal grain, burnt cattle and sheep bones and unburnt horse teeth.[24] In the votive pits, the animal bones were, apparently, ordinary food waste—mainly bones from the meaty parts of cattle and sheep. With the exception of the incidence of human bones, the species composition did not differ between the votive pits and the settlement's other bone collections.[25] Rather than as fine offerings to particular gods, the depositions were interpreted as food offerings to supernatural beings that, as regards the wellbeing of the humans and their livestock, were important in daily life.[26]

Fig. 7. Animal bones occur in 80% of all Iron Age ritual deposits in Sweden. Bones from domestic animal are most common but there are also examples of offering pits with remains from wild animals such as the elk antler shown, found in Skultorp in Västergötland.

At Abbetorp in the parish of Väderstad in Östergötland, the remains of two Iron Age homesteads were investigated. The larger of these homesteads had a ritual area that had been made most use of between AD 400 and 600.[27] In the excavation towards the end of the 1990s, a little over one hundred very small circular hearths and a number of pits were found in the ritual area. The pits and hearths contained a lot of burnt and unburnt animal bones along with, amongst other items, crushed ceramics and shards from glass beakers. The zooarchaeological analysis showed that 70% of the bone fragments were cattle followed by (in decreasing order of importance) horse, sheep/goat and pig.[28] Largely corresponding with that observed at contemporaneous settlements in the vicinity, this distribution of species does not present an anomalous pattern. Thus, it cannot be maintained that special animal species were selected for the ritual meals. The archaeologists sketched out a scenario in which animals were led to this area to be slaughtered and butchered. The meat was prepared for meals at regular, annual, ritual celebrations and feasting. Food remains were then deposited in hearths or pits or next to the large stone blocks in the area.

Animal bones—important evidence of rituals

In this paper, I have sought to point out the complexity of several contexts of offerings in Iron Age Scandinavia in which animal bones are the most important element. A general analysis indicates that animal bones are found in around 80% of all depositions that are considered to be ritual (*Fig. 7*). Bones may be found alone or with, for example, ceramics, cereal grain, iron objects and millstones. The zooarchaeological material thus plays a key role not only in determining whether there is evidence of rituals, but also in identifying private ritual praxis in Iron Age societies.

Without meticulous analysis of the animal bones, important information would be entirely lost to us. Nonetheless,

[23] Berglund 2005, 80f.
[24] Berglund 2005, 92.
[25] Vretemark 2004c.
[26] Axelsson & Berglund 2005, 255.
[27] Lindeblad & Pettersson 2009.
[28] Sigvallius 2000.

this review shows that, working solely from the bones, absolute certainty is not possible in determining whether finds are evidence of rituals. The incidence of species in the zooarchaeological material does not seem to be systematic, this indicating that various principles governed how domestic animals were included in rituals. Only in combination with the context of the archaeological find can evidence of rituals be deduced. Consequently, interpretation must be on a case-by-case basis. In principle, anything that, at the time, had a symbolic value could be used as an offering. Ritual activity was sometimes associated with a special place, but could just as easily occur within the framework of daily chores.

Thus, when is it appropriate to interpret finds of animal bones as evidence of rituals? The review of the various examples shows that, both during on-site excavation and osteological analysis of animal bones, special attention should be paid to certain criteria. Within the Iron Age Scandinavian context, where any one or more of the following ten criteria relating to the find context or the composition of the bones are met, an interpretation as ritual deposition of animal bones should be considered a possibility:

1. Atypical placement of animal bones (for example, in water).

2. Specific combinations of finds in which animal bones are found with, for example, ceramics, millstones, iron implements, etc.

3. Depositions of entire skeletons or many bones from a single individual.

4. Depositions with specially selected anatomical parts, for example crania, jaws and foot bones.

5. A large percentage of intact bones that do not show signs of standard butchery.

6. A high percentage of horse.

7. Atypical incidence of species compared with waste from nearby settlements.

8. Incidence of unusual species or comparatively large amounts of game.

9. Presence of human bones outside grave contexts.

10. Atypical handling where bones are partly burnt or crushed.

To summarize, the conclusion that can be drawn from the material is that archaeological excavations obviously have yielded countless examples of combinations of animal bones and find contexts that indicate Iron Age rituals. There is no written material detailing these rituals. Thus, the zooarchaeological material is the only remaining evidence. Consequently, it is extremely important to evaluate these finds as unique evidence of ritual praxis and of a mindset that was central in everyday Iron Age life in Scandinavia. Without the animal bone finds, this sphere of life would remain hidden to us.

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