

Animal Bells in Early Scandinavian Soundscapes

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ZUSAMMENFASSUNG

Tierglocken sind in Ausgrabungen Skandinaviens keine ungewöhnlichen Artefakte. Die Mehrheit dieser archäologischen Funde stammt aus der Wikingerzeit (800–1050 n. Chr.). In diesem Beitrag wird ein neues Projekt zu den Tierglocken in der frühen Klangwelt Skandinaviens vorgestellt. Gebrauch, Funktion, kulturelle Bedeutung und Kontinuität dieser Objekte werden dabei geklärt. Eines der hier diskutierten Probleme ist, ob die Glocken in der Tierzucht, beim Reiten oder in beiden Bereichen Verwendung fanden. Bei der Reise zu Pferde wären dabei Signalgebung und Vorwarnung die wichtigste Funktion der Glocken, denn es war wichtig, die Näherung des Fahrzeugs anzukündigen, besonders wenn man per Schlitten in ruhiger Winterlandschaft unterwegs war. Es ist jedoch sehr wahrscheinlich, dass die Glocken mehrere Funktionen inne hatten und z. B. neben den praktischen auch zu magischen und rituellen Zwecken eingesetzt wurden. Die Glockenklänge waren in mancherlei Hinsicht bedeutungsvolle Symbole für die Menschen. Besonders wichtig für die Funktion der Tierglocken war, dass sie dazu beitrugen, (Klang-) Räume zu bilden sowie menschliche Aktivitäten innerhalb dieser Räume abzugrenzen. Darüber hinaus schützten sie Tiere gegen üble Mächte und vor Raubtieren.

1 INTRODUCTION

At winter sports events the use of various sound tools creates a characteristic sonic atmosphere. The supporters of cross-country skiing seem to have favoured animal bells, especially sheep bells, when gathering along the tracks, cheering on their favourite athletes. This modern use of animal bells started seriously at the Olympic Winter Games in Lillehammer in 1994, where more than 200,000 bells were sold. In 2002 an entire aircraft from The Scandinavian Airlines transported 42 tons of Norwegian animal bells to the Winter Olympics in Salt Lake City, according to one of the manufacturers¹.

This re-contextualizing of animal bells appears new or invented, detached from customary usage. What is interesting, however, is that such uses of bells as an expression of collective enthusiasm and *high spirits* are found in more traditional settings also.

To exemplify, one archaic custom known from Norway is that of *bjølling*, which means literally “making sounds with bells”: Young people gathered at night outside a house where they knew that a boy and girl were courting, and decided that the time had come to announce the new relationship. They then made a terrible noise with bells and other sound tools outside the house for the purpose of celebrating and consolidating the establishment of the couple². Related customs are described from elsewhere in Europe and might be interpreted as transition rituals. The sound from the bells also had a protective function in such rituals.

Without bringing a direct analogy into the interpretation of archaeological materials, the intention with these initial ethnographical cases is merely to illustrate that bells have had multiple functions, in these cases as signalling, encouraging, celebrating and protecting devices. The magical properties of bells are universal, but they are often connected to practical and also aesthetical significances.

This article introduces material, objectives and ideas from a new project about animal bells in the soundscapes of Scandinavia³. The project seeks to clarify use, function, cultural significance and continuity. While the entire project takes into account material from a long time-span, reaching from pre-historic times up to the present, this paper focuses on the archaeology of the earliest period, which is the Iron Age, prior to the introduction of Christianity in the 11th century.

¹ Åsmund Moen, at Moen Bells, personal communication.

² Hovet 1970.

³ Thanks to Ingrid Landmark, Museum of Cultural History, Oslo, for access to the material at the museum, Jostein Kolltveit for information about traditional use of animal bells, and Trevor Ford for correcting the English text.

2 CLASSIFICATION

It is often difficult to recognise the function of a bell, not at least because there might be several functions at one time, as mentioned above. Accordingly, it would not be wise to exclude items lacking a safe identification as animal bells. I have included all potential bells, even though some of them may not have been used for animals.

So far I have compiled approximately 150 Iron Age bells in the archaeological collections of Scandinavia⁴, but I am sure there are more. The material is mixed, consisting of several types. The oldest bells are cast bronze items from the Roman Iron Age (1st to the 4th century AD). These *tintinnabula*, which were imported from the Roman Empire, are found around the Baltic Sea, four in Sweden and five in Denmark⁵. The established theory is that they were used in magical or religious practices. Being used as animal bells, for instance, as an additional function, is still not implausible. Some scholars have suggested that these artefacts were used in connection with horse races⁶.

Apart from the material of manufacture, we can distinguish between open and ‘closed’ or crotal bells⁷. In the Swedish language there is a distinction between these: *bjällra* denotes a crotal bell, whereas *skälla* means an open bell. I have not yet arrived at any exact number of crotal bells; provisionally there are at least 60. They are found both in cast and forged versions. Most of them were excavated in Sweden⁸.

Regarding the forged iron open bells, the great majority – more than 70 examples – were discovered in Norway. Three types stand out (Figs. 1–3):

- (1) The first is made of one piece of metal⁹ with two joinings, one at each side. The type displays variation in shapes and sizes, but the bells have typically an oval or rectangular opening. This is by far the most common type.
- (2) The second type is made of two pieces of metal. One rectangular sheet is curved like a pipe and joined, while another circular sheet forms the top. These bells have therefore a circular opening, and are often small.
- (3) The third type is funnel-shaped, made of one piece. The narrow end is forged entirely into a loop, then continued down into the bell, providing a fastening for the striker. The sides are *not* joined. These bells are forged of a thick material. Due to the heavy material and the open shape, I would guess their sound would be less ringing and probably darker than the others. This type is only found in one part of Eastern Norway. I have not been able to identify such bells elsewhere in Europe, but – ethno-

graphically interestingly – very similar ones are found in Eastern Africa¹⁰!

3 USE AND FUNCTION

We assume that all these open iron bells were used as animal bells. As for cattle breeding we do not know much about the significance of bells in the earliest times, but there is a rich traditional folklore regarding animal bells that might suggest something about their significance.

Apart from the purposes of keeping the flock together and providing the possibility to find missing animals, a repeated theme in the sources is that the bells had a protective function¹¹. They protected against evil forces, predators included. Traditionally, only the leading cow or sheep in the herd wore a bell. This bell was prized, and its magical and protective power was secured by rituals. For example, they were silenced in certain places or on certain occasions, because they should not disturb the underworld beings. Especially the day on which the cattle left the farm for summer pasture, various rituals took place. Some people used to put salt in the bell. This salt was then given to the cattle to ensure that the flock followed the bell cow.

These cultural meanings are definitely old, perhaps pre-Christian, even if the structures of pastoralism were different in that time. The custom of taking the cattle from the farm to a summer pasture was not instituted everywhere, although this is not yet clarified. Regardless of the age of this kind of folklore, another question is whether the archaeological bells in question here were used for cattle breeding in reality. Let us therefore take a look at the find circumstances.

4 FIND CIRCUMSTANCES

Apart from the Roman *tintinnabula* and a few other bells, the well-dated finds were discovered in

⁴ The provisional count is based on Petersen 1951, Neubert 1969, and museum accession catalogues available in the Internet.

⁵ Emsheimer 1988; Nowakowski 1994.

⁶ Nowakowski 1994, 137.

⁷ Crotal bells are also referred to as pellet bells or jingle bells.

⁸ There are more crotal bells in Finland than in Scandinavia. Riita Rainio, who researches Finnish Iron Age bells, has recorded 295 crotal bells in the National Museum of Finland (see Rainio, this volume).

⁹ Not counting the striker and its point of suspension.

¹⁰ Hörmann 1913, 83, Fig. 40, Pl. XII. Caption for the illustration: “Schelle der Wahehe, D. Ostafrika; a.d. Samlg. Stadtl. bauer, München”. If anyone knows more about this kind of bell, I would be grateful to be informed.

¹¹ Solheim 1952; Emsheimer 1991.

graves, especially from the Viking Age. They were deposited as grave goods, along with horse equipment, indicating a function as horse bells. For most of the small crotal bells, this is the most plausible interpretation. Sometimes they are found with strap mountings (Fig. 4). For the open forged bells, which were unearthed chiefly in Eastern Norway, the situation is more difficult.

A surprising coincidence is that the famous rattles, called *rangler*, from the same period are distributed in the same area as the Norwegian open bells. These artefacts, of which around 140 have been discovered, were in all probability horse equipment used as rattles attached to the straps of wagons or sledges¹². One suggestion is that the *rangler* were used when travelling by horse, whereas bells were used for cattle breeding. However, the find of a *rangle* with both metal rings and a bell suggests the possibility that *rangler* and bells were used for the same purpose (Fig. 5).

When travelling by horse, signalling and warning was the most important practical function of bells (and *rangler*). It was important to simply indicate the approach of the vehicle, especially when travelling by sledge in silent winter landscapes. Up to the last century Norway had laws ordering the use of bell for horse when travelling by sledge. It was required to use bells from the autumnal equinox (September 23rd) to the vernal equinox (March 20th). In the summer, there was so much clattering from the wagon that the signalling bell would be unnecessary. Furthermore, in the Viking Age, people travelled predominantly in winter, because there were no roads for wagons in the summer.

The protective functions of bells would also apply to horses, not only cattle. Moreover, bells (and *rangler*) could also be used in the cult of the Norse deity *Frey*. We know that rattles and bells were a part of fertility rites in many cultures, and *Frey* was the fertility god of the Vikings¹³. The connection between *Frey* and horse rituals is well known from the sagas. One possibility would be that the Vikings decorated sacrificial horses with bells and/or *rangler*.

Following this reasoning, one theory would be that bells were not used for cattle breeding at all in pre-Christian times, because there is no clear evidence, neither in archaeological materials nor iconography, that Iron Age people actually used bells on their cattle.

However, this is only a theory. There is, conversely, neither any evidence pointing against the use of bells in cattle breeding. It is possible that cattle bells were not buried as grave goods. Pursuing this track, cattle bells would only rarely appear in archaeological material, and when they do, they are chance finds. Secondly, the hypothesis that

bells discovered in graves with horse equipment were horse bells might be wrong, at least in some of the cases. A number of the graves are furnished with more than horse equipment alone. For instance, we find artefacts such as axes, scythes and whetstones, giving agricultural and pastoral associations. Thirdly, the most common type of bells found in the graves is identical to the type later known as cow bells. Bells for horses were traditionally been smaller. They were either cast open bells, or crotal bells.

Whether the forged open bells in the Iron Age were used primarily for travelling by horse, cattle breeding or both, remains unresolved so far. A closer and more systematic examination of the find circumstances as well as the artefacts themselves will hopefully clarify this question.

5 ANIMAL BELLS IN SOUNDSCAPES

The functions of bells also reach beyond those that are intentional and man-made. Whether used for riding or cattle breeding, they were part of a larger sonic environment, in which they joined with and overlapped polyphonically other human made sounds as well as sounds from wind, water, vegetation and animals. For modern people, animal bells are associated with nature. One reason for this might be that cattle traditionally grazed in environments where human activities have apparently had minor impact, such as forests or above the tree line, away from villages and houses. Regardless of their place in natural soundscapes, however, bells should always be regarded as cultural artefacts.

As such, one purpose of bells in human perception is that they are makers of time and space¹⁴. Especially relevant for animal bells is that they form, define and shape space. They add distance and dimension to the landscape and demarcate human activities in space. More specifically, we can imagine that bells were territorial markers, acting as symbolic borders around the area that people

¹² Lund 1974.

¹³ Lund 1974, 87–88.

¹⁴ The anthropologist Steven Feld, who has worked extensively with rainforest soundscapes of Papua New Guinea, says that “bells stand to European time as birds do to rainforest time. Daily time, seasonal time, work time, ritual time, social time, collective time, cosmological time – all have their parallels, with rainforest birds sounding as quotidian clocks and spirit voices, and European bells heralding civil and religious time” (Feld 2004). Although Feld refers to a variety of bells, of which the majority are large bells, also animal bells might be ‘sounding time’ in many ways.

used and controlled. This is similar to how fire was used in the Norse pre- and protohistory, when settlers transformed new areas into their own land: They carried fire across the territory, symbolically, in order to exorcise and tame evil spirits¹⁵.

Again, suggestive data is provided by ethnographical sources, telling about rituals, in which cattle bells were used to exorcise spirits or beings that could turn wolves and bear on the cattle. Before the cattle were driven to their summer pasture, the village communities performed magical hunting drives, in which the youths shook bundles of cow bells and other sound producing devices (rattles, horns etc.) for the entire day. The purpose of this ritual was to banish predatory animals for the entire year from the area of the pastures covered by the sound¹⁶.

Moreover, bells might be shaping space acoustically by expressing social differentiation, such as class or sex. Horse bells, for instance, were

context of entire soundscapes. The term soundscape here refers to a physical sonic environment as well as “a way of perceiving that environment; it is both a world and a culture constructed to make sense of that world”¹⁸.

The core problem will be how to approach the human perception belonging to a distant and mythical past. This is indeed a difficult challenge. However, some research contributions provide gateways. Examples include a study of French village bells from the 19th century¹⁹ and the aural culture of early historical America²⁰. Of special importance here is the work of the British archaeologist Steve Mills, who has introduced an *auditory archaeology*, which – in short – seeks to identify and reconstruct the significance of sound and hearing in daily life of the past²¹. Through experimental and computer-based analysis, Mills has been able to identify what he calls “auditory character areas” in some locations. His material has

	Horse Bells	Cattle Bells
Practically	<ul style="list-style-type: none"> • Indicating approach of vehicle 	<ul style="list-style-type: none"> • Keeping the flock together • Finding missing animals • Keeping predators away • Marking territories
Ritually	<ul style="list-style-type: none"> • Protection against evil spirits • Decoration • Fertility rites (cult of <i>Frey</i>?) • Horse races? 	<ul style="list-style-type: none"> • Protection against evil spirits (= keeping predators away) • Marking territories • Transition rituals
Aesthetically	<ul style="list-style-type: none"> • Acoustic presence in soundscapes • Decoration • Motion • Forming space and time • Horse races? 	<ul style="list-style-type: none"> • Acoustic presence in soundscapes • Forming space and time • Shaping territories
Socially	<ul style="list-style-type: none"> • Symbol of power and wealth • Male power? 	<ul style="list-style-type: none"> • Symbol of power and wealth?

Tab. 1 Significances of Animal Bells

symbols of power and rank. This is demonstrated by their frequent appearances in rich graves, similar to the *rangle* finds. Regarding sex, the great number of excavated bells derives from male graves. Only very few belonged to females, including a find from northern Norway, where a buried woman was found with a bell by her left hand¹⁷. However, it is rather unlikely that bells produced exclusively male or female soundscapes. Table 1 summarizes the plausible significances of animal bells discussed here.

Finally, the main challenges for my project will be to clarify the use and function of the bells in the

been Neolithic landscapes and settlements in Romania and Turkey, and a Post-medieval mining landscape in Cornwall, UK.

These fresh studies and ideas show new ways of studying soundscapes that do not overlook the

¹⁵ Emsheimer 1991, 43.

¹⁶ Emsheimer 1991, 43.

¹⁷ Viking Age burial at Hagbartholmen, Steigen, Nordland (Tromsø Museum, Ts 5281).

¹⁸ Thompson 2002, 1.

¹⁹ Corbin 1998.

²⁰ Smith 2001; Cullen Rath 2003.

²¹ Mills 2001; Mills 2005.

people inhabiting them. For my own project, the challenge will be to demonstrate how animal bells were meaningful tools and sound signals to people. I shall develop the interim results given in

this paper and delve into the acoustic spaces of animal bells from the distant past, to capture the beginning of the story leading to the Winter Olympics.

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Fig. 1 Viking Age iron bell from Flatland, Hjartdal, Telemark Co., Norway (C27518). Length without striker: 9.1 cm. Largest width: 8.2 cm. Courtesy of the Museum of Cultural History, Oslo. Photo: G. Kolltveit.



Fig. 2 Viking Age iron bell, unprovenanced, Eastern Norway (C10461). Length without striker: 6.1 cm. Largest width: 4.7 cm. Courtesy of the Museum of Cultural History, Oslo. Photo: G. Kolltveit.



Fig. 3 a–b: Viking Age iron bell from Liberg, Vang, Hedemark Co., Norway (C25952a). Length without striker: 12.6 cm. Largest width: 6.2 cm. Courtesy of the Museum of Cultural History, Oslo. Photo: G. Kolltveit.



Fig. 4 Crotal iron bells with strap mountings from a Viking Age grave find at Raglunda, Västmanland Co., Sweden (from Lund 1991, 55). The bell second from the left measures about 3 x 2.2 cm.

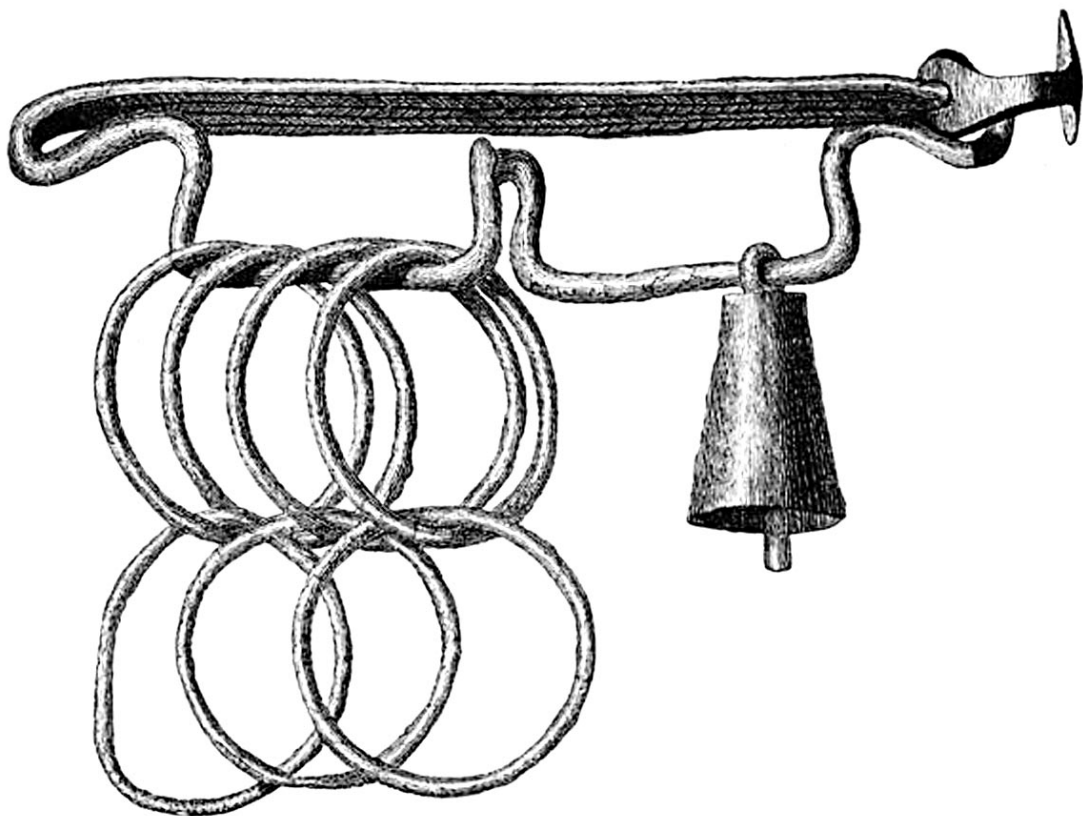


Fig. 5 Viking Age *Rangle* with bell, 11th century. From Utgården, Seljord, Telemark Co., Norway (C1649). Original in the Museum of Cultural History, Oslo (from Rygh 1999, Fig. 461).