Equus caballus in Iceland
From Landnám to Christianization

Author: Finn Leland


Illustration by
Madelaine Mae Dack

Keywords: Archaeology, Icelandic Horse, Literary Analysis, Norse Paganism, Old Norse Literature

Abstract:

In the late 9th century CE, Iceland was colonized by settlers from Norway and surrounding Norse settlement areas. With them, they brought the domestic horse, Equus caballus. This paper aims to examine how early Icelanders used horses to survive a hostile climate and how the relationships between Icelanders and their horses have changed over time. This examination is conducted primarily through literary analysis, in which literature from archaeologists, anthropologists, lawyers, and historians is considered. Archaeological sites in which horses have been intentionally buried are also consulted. Widely-accepted conclusions include that horses were initially used for transportation, but were also practical sources of meat when the need presented itself. Horses were also vital to several pagan rituals, including ritual consumption of horseflesh, horse sacrifice, and horse-fighting. After the Christianization circa 1000 CE, horses remained to be important symbols of the collective Icelandic identity. There remain gaps in archaeologists' understanding of how horses were actually used in pagan ritual. More research may illuminate the gaps between historical literature and the archaeological record.

1. Introduction

Equus caballus, the domestic horse, has been integral to Iceland's national identity since its establishment. Horses provided one of the mechanisms behind early Icelanders' ability to adapt and survive in an unfamiliar, hostile environment. They acted as spiritual ties between Icelanders, their landscape, and the supernatural, becoming the objects of several rituals. This article offers a brief overview of horses' many roles during the medieval period in Iceland, beginning with the Settlement period, covering the Viking period, and ending with the Christianization.

Horses were initially brought to Iceland from Norway as mounts. They helped to connect the small, dispersed communities across the island, and they provided a convenient food source. In addition to subsistence-based horsemeat consumption, Norse pagans ate horsemeat as part of their rituals. These rituals were accompanied by other practices such as horse-fighting, horse sacrifice, and ceremonial horse burial.

Changes in how Icelanders treated horses are visible through the archaeological record. Practices such as butchery or ritual burial waxed and waned over the Viking period. Such practices were strongly influenced by factors such as social status and location. By dating these sites, archaeologists can infer how the roles of the horse changed and developed over time. Archaeologists, accompanied by historians and anthropologists, might also infer how the shifting roles of the horse correlated with cultural changes in Iceland.

In this article, I review evidence published in primary archaeological reports and cross-reference literature published by archaeologists, anthropologists, historians, and lawyers. In Iceland, law, religious beliefs, the supernatural, and the landscape are all deeply connected and foundational to the structure of the collective Icelandic identity. Through studying horse remains, we can better understand how the associated daily and ritual practices were foundational to Iceland's modern identity.

Illustration by Madelaine Mae Dack

2. Background

2.1 Colonization and Christianization

The Icelandic medieval period may be split into three broad intervals for general applications. The Settlement period, the *Landnám*, began in 874 CE, during which settlers from Western Norway and Norse settlement areas in the British Isles began to colonize the island in waves (Bennett, 2014,p. 33; McGovern et al., 2007, p. 27; Smith, 1995, p. 319). The Viking period began in the late eighth century and lasted until circa 1100 CE, overlapping with Iceland's conversion from paganism to Christianity in 1000 CE (Bennett, 2014, p. 33). The Age of the Sturlungs began circa 1220 CE and lasted until Iceland was subjugated under Norway in the early 1260s (Bennett, 2014, p. 33; McGovern et al., 2007, p. 29). For this article, the second division will be placed at 1000 AD, bisecting the Viking and Conversion periods, the latter of which is also known as the Christianization. Dividing medieval Icelandic history into discrete periods in this way bars any finely nuanced interpretations of cultural changes. However, these divisions create benchmarks by which we can better understand those cultural changes that developed relatively distinctly.

The traditional narrative surrounding the Christianization in 1000 CE is that conversion was universally agreed upon, thereby promoting a collective Icelandic identity unified through a common legal system (Phelpstead, 2020, p. 54; Self, 2010, p. 182). Whether or not the conversion was actually peaceful has become a source of debate. However, archaeological evidence of burial practices has illustrated some of the cultural shifts that co-occurred with the Christianization.

2.2 The Icelandic Horse

Norse colonists imported several domesticated livestock species, including cattle (*Bos taurus*), pigs (*Sus scrofa*), sheep (*Ovis aries*), goats (*Capra aegagrus*), and horses (McGovern et al., 2007, p. 30). Early Icelanders relied heavily on cattle and pigs,

and only later would they begin to emphasize sheep and goats (Smith, 1995, p. 329; Stelter, 2014, p. 16). The volcanic soils were prone to erosion and were suboptimal for providing nutrients to plants. Colonists, therefore, could not establish the same agricultural practices and domestic grazing animals that they had succeeded with in the past, creating long-lasting impacts on farming (McGovern et al., 2007, pp. 29-30; Stelter, 2014, p. 15). Early Icelanders looked to other resources, such as seafood, to sustain their populations. They also needed to re-evaluate the cost and benefits of each livestock species and consider which were worth investing their resources into (Stelter, 2014, p. 16). Horses, being incredibly versatile in their uses, were an obvious choice.

Colonists began to import horses from the Settlement period until the Icelandic central governing body, the *Alþing*, was formed (Einarsson, 2010, p. 4; Stelter, 2014, p.14). In 982 CE, a law (which remains in place today) was enacted to ban the import of new horses. The earliest horses in Iceland were imported from Norway (Stelter, 2020, p. 30). Individuals were likely selected for their potential to survive the voyage rather than solely for their breed. Careful selection of imported animals and isolation of the population for over a millennium allowed Icelanders to tailor and maintain a breed optimized for their needs (Einarsson, 2010, p. 4; Stelter, 2014, p. 14). Modern Icelandic horses are similar to their earliest ancestors with their stout bodies and thick manes, each generation well-adapted to the arctic environment (Stelter, 2014, p. 11). These horses helped early Icelanders adapt to and navigate their newfound landscape.

3. Archaeological Evidence

Broadly, Icelandic burials can be divided between two characteristic traditions: *kuml* and Christian (Leifsson, 2018, p. 6; Vésteinsson, 2020, p. 187). *Kuml* burials preceded Christian practices and are typically defined by the inclusion of grave goods. These burials were highly exclusive as to whom they were offered and followed strict protocols. Typological, radiocarbon, and tephrochronological dating place most of these burials within the 10th century CE, with only a few occuring post-Christianization (Vésteinsson et al., 2019, p. 3). Not all pagan burials are *kuml* burials, but all *kuml* burials are pagan. There are pagan burials which do not fit under the definition of a *kuml* burial but clearly do not follow the Christian paradigm. For simplicity's sake, all *kuml* and pre-Christian burials will be referred to as 'pagan' henceforth.

Christian graves, in contrast, are relatively distinguishable. Christian burials are always placed in a graveyard associated with a church or chapel within the homefield (Friðriksson & Vésteinsson, 2011, p. 55; Vésteinsson et al., 2019, p. 3). Where pagan burials are heavily biased towards men, Christian burial sites frequently include women and children as well as men (Vésteinsson et al., 2019, p. 3). Christian graves also follow an east-west orientation and do not often contain grave goods or animal remains (Vésteinsson et al., 2019, p. 7; Vésteinsson, 2020, p. 191). Categorizing burials in this way aids in correlating Icelandic cultural and religious practices with their treatment of horses. Horses have always been an intrinsic part of Icelandic culture (Einarsson, 2010, p. 5). As a result, their remains are frequently found as part of the archaeological record (Figure 1), from which anthropologists may deduce their given role in society.

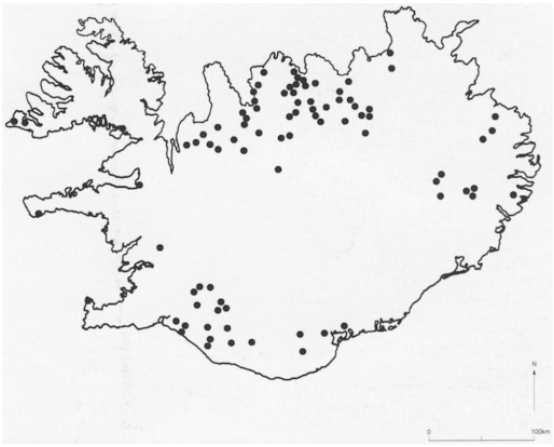


Figure 1. A map marking Viking Age horse graves in Iceland. Note. Image from Sikora (2003).

Illustration by Madelaine Mae Dack

4. Discussion

4.1 Horses as Transportation

Across countless temporal and geographic ranges, horses are most commonly used as transportation. Iceland is no different. Iceland's landscape is characterized by rocky terrain, rolling lava fields, and waterways that carve through the land. The earliest Icelandic horses were relatives of other sure-footed breeds, such as the Dølehest, the Coldblooded Trotter, and the Fjord (Stelter, 2020, p. 31). Horses played a vital role in Icelanders' ability to navigate land and water more efficiently than by foot or boat (Einarsson, 2010, pp. 5-6; Stelter, 2014, p. 17; Stelter, 2019, p. 31). This was necessary for establishing and maintaining interconnectedness between settlements.

The most direct line of evidence of horse riding is the presence of skeletal lesions. The physical burden resulting from carrying the rider, their gear, and any cargo may result in changes to the skeleton. These changes include ankylosis of joints or the formation of osteophytes. The young horse at Mörk (Figure 2) displayed the fusion of the metacarpal and the accessory second metacarpal, which may have resulted from riding (Leifsson, 2018, p. 68). An older adult horse at Öxnadalsheiði (Figure 2) had three ankylosed thoracic vertebrae and two ankylosed tarsals (Leifsson, 2018, p. 116). A young horse at Kolsholt had osteophytes forming along the articular surfaces of its thoracic vertebrae, which may have resulted from riding or other load-bearing activities. As investigated by Leifsson (2018), riding most frequently bore marks on the skeleton as changes to the thoracic vertebrae or podials.[1]

Indirect evidence for horse riding includes remnants of riding equipment (tack), regardless of whether the horse is present. Most components of a tack set are made of organic materials such as leather, wood or fabric. Therefore, the most commonly found remnants of tack are iron bits, such as those found at Mörk or Brimnes, or buckles, like those found at Öxnadalsheiði (Leifsson, 2018, pp. 67, 104, 116). Other notable artifacts include iron nails, decorative copper fittings, or, in rare cases, wooden saddles. Horseshoes, however, were not used during the Viking period and are absent from these assemblages (Stelter, 2014, p. 44). Tack is indirect rather than direct evidence because there are some cases in which tack

[1] "Podial" refers to the bones of the lower portion of any of the four limbs.

is associated with the remains of horses too young to have been ridden (Leifsson, 2018, p. iii). Regardless, the intentional burial of riding tack reinforces the importance of horses to early Icelanders.

4.2 Horses as Food

The presence of burned or tool-marked horse bones suggests that as well as being loyal steeds, horses were being eaten by medieval Icelanders. Some historical sources[2] express that horses were a crucial part of the Icelandic diet, either by necessity or by preference (Miller, 1991, pp. 2086-2087). However, the archaeological record suggests that horses were not nearly as large a portion of Icelanders' diets as cattle, sheep, goats, and pigs (Leifsson, 2018, pp. 264-265).

Horse bones in food waste middens often bear butchery marks (Leifsson, 2018, p. 263). For example, the horse remains at Hrísheimur (Figure 2) were part of a midden that also included cattle and caprines,[3] all of which bore chopping marks indicative of dismemberment (McGovern & Perdikaris, 2002). The horse bones at Vígishellir (Figure 2) are accompanied by cattle, pigs, and caprines, which had been highly processed but not burned (McGovern, 2003, p. 4). However, the horse bones at Aðalstræti (Figure 2) were burned in a hearth alongside other butchered animals (Tinsley & McGovern, 2001, p. 2).

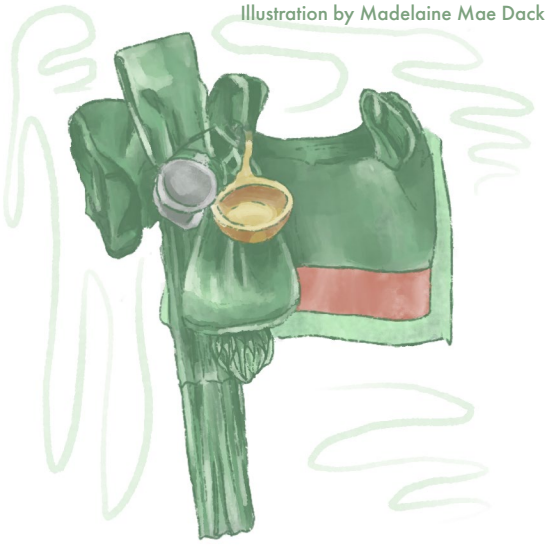
The consumption of horsemeat continued beyond the medieval period, but tapered after the Christianization (Hicks, 2010, p. 15; Leifsson, 2018, p. 264). The relative scarcity of horse bones in food middens suggests that eating horsemeat was likely a special occasion rather than a preferred subsistence strategy. Historians and archaeologists have deduced that Icelanders most likely consumed horsemeat as part of pagan rituals (Miller, 1991, pp. 2086-2087). This ritual activity was a remnant of Norwegian pagan practices and was outlawed following the implementation of Christian law (Einarsson, 2010, p. 6; Stelter, 2014, p. 28).

4.3 Horses as Pagan Ritual Objects

Horses were central figures of the Icelandic pagan ritual, possibly due to their associations with the gods Odin and Freyr (Sikora, 2003, p. 87; Leifsson, 2018, p. 10). Rituals such as horse-fights, horse sacrifice, consumption of horsemeat, and horse burials were pagan practices. Of these rituals, horse sacrifices and subsequent burials are most easily observed through the archaeological record.

Sacrifices may have been performed as offerings to the gods or as the basis for communal feasts, establishing and strengthening inter-communal connections (Gogosz, 2013, pp. 18, 31; Stelter, 2014, pp. 17, 18; Vesteinsson, 2020, p. 191). In cases where a horse was interred alongside a human, strict protocols were followed. Protocol dictated who received such a burial, how the horse was killed, how its carcass was arranged, and what artifacts the individuals were buried with (Leifsson, 2018, p. iii). Conversely, not every horse burial is associated with a human grave (Leifsson, 2018, p. iii; Stelter, 2019, p. 31).

Illustration by Madelaine Mae Dack



[2] Such as the sagas, a series of books describing Icelandic history written after the Christianization.
[3] Either sheep or goats, indistinguishable in the archaeological record.

The burials at Saltvík and Dadastaðir (Figure 2) illustrate the pagan burial paradigm, each including a horse burial with an associated human grave (McGovern, 2004a; 2004b). Each skeleton most likely represents a single adult horse. Unfortunately, both sites were looted before the 1477 tephra, so no artifacts have been recovered. Neither site report lists any evidence that these animals were butchered. However, they were likely sacrificed. These graves each fit within the expected temporal range for pagan burials and are representative of the Icelandic interpretation of this tradition.

4.4 From Norway to Iceland

Although Norwegian predecessors of Icelanders were primarily responsible for the ritual significance of horses, many of the traditional mainland Scandinavian practices were abandoned or modified in Iceland. For example, Norwegian horse remains were cremated before interment, but Icelandic horse remains were not (Sikora, 2003, p. 93). Additionally, the demographics of such burials shifted in Iceland. In Norway, horses are typically found buried alongside males, but in Iceland, this inequality is less exaggerated. Other rituals, such as horse-fighting, morphed from special yearly assemblies in Norway to more frequent sport-like gatherings in Iceland (Gogosz, 2013, p. 19).

Horses were cemented firmly as underpinnings of pagan practices, but they maintained their status as integral pieces of Icelandic identity even post-Christianization. Foremost, practices such as horse-fighting and consumption of horsemeat may have been outlawed on paper, but such laws were difficult to enforce in practice. Horses also gained roles in Christian practices, such as carrying coffins during funerals (Stelter, 2014, p. 18). Sites like Gásir (Figure 2) illustrate that horses remained culturally significant to Icelanders post-Conversion (Woollett & McGovern, 2002).

5. Conclusions

The archaeological record provides insight into the many uses Icelanders had for horses from the Settlement period onward. Horses were raised for practical uses, such as transportation and meat. They were also used as ritual offerings and burial objects. The boundaries between practical and ritual use, however, are not often as clear-cut as we might expect. Horsemeat was eaten as a pagan ritual practice as well as for nutrition, and sacrificial horse burials often included riding tack.

In most cases, it may be impossible to distinguish between practical and ritual use, assuming they were never one and the same. Currently, multimodal approaches from archaeologists and historians have revealed to a reasonable extent the practical uses for horses in medieval Iceland. However, ritual practices that used horses demand a more thorough understanding.

Although historical literature tends to mention that rituals such as eating horseflesh and horse-fighting happened, it rarely provides much detail. Usually, the intended audience would have already been familiar with these rituals and would not have needed them explained. However, when drawing from these historical sources, we lack information that might be revealed through improved or different archaeological approaches. Archaeologists may be able to carefully infer the frequency and seasonality of ritual practices such as horse sacrifice. They might also be able to investigate any skeletal lesions that may have resulted from horse-fighting or sacrificial killing. Continual comparison of horse burials in Iceland to those in Norway will reveal differences between practices. Ultimately, archaeological evidence of horse-based pagan rituals in Iceland has been largely restricted to excavating horse burials, so there is plenty of room for further exploration.

Works Cited

Bennett, L. (2014). Burial practices as sites of cultural memory in the *Íslendingasögur. Viking and medieval Scandinavia*, 10, 27–52. https://www.jstor.org/stable/48501879

Einarsson, S. Ö. (2010). *The role of the Icelandic horse in Icelandic history and its image in the Icelandic media* [Bachelor's Thesis, University of Akureyri]. Skemman. http://hdl.handle.net/1946/5857

Friðriksson, A., & Vésteinsson, O. (2011). Landscapes of burial: Contrasting the pagan and Christian paradigms of burial in Viking age and medieval Iceland. *Archaeologia Islandica*, 9, 50–64. https://www.researchgate.net/publication/255819192

Gogosz, R. (2013). Horse-fights: The brutal entertainment of the saga age Icelanders. *Średniowiecze Polskie i Powszechne*, 5 (9), 17-32. https://www.ceeol.com/search/article-detail?id=228657

Hicks, M. T. (2010). *Skútustaðir: An interim zooarchaeological report following the 2009 field season* (Report No. 48). CUNY Northern Science and Education Center. NABO. https://www.nabohome.org/download/skutustadir-an-interim-zooarchaeological-report-following-the-2009-field-season/

Leifsson, R. (2018). *Ritual animal killing and burial customs in Viking age Iceland* [Doctoral Dissertation, University of Iceland]. Opin Vísindi. https://hdl.handle.net/20.500.11815/1004

McGovern, T. H. (2003). *Animal bones from Vígishellir Cave, W Iceland*. (Report No. 8). CUNY Northern Science and Education Center. NABO. https://www.nabohome.org/download/animal-bones-from-vigishellir-cave-w-iceland/

McGovern, T. H. (2004a). *Report of bones from Dadastaðir, Mývatn District, Northern Iceland*. (Report No. 19). CUNY Northern Science and Education Center. NABO. https://www.nabohome.org/download/report-of-bones-from-dadastadir-myvatn-district-northern-iceland/

McGovern, T. H. (2004b). *Report of bones from Saltvík, Northern Iceland*. (Report No. 20). CUNY Northern Science and Education Center. NABO. https://www.nabohome.org/download/report-of-bones-from-saltvik-northern-iceland/

McGovern, T. H., & Perdikaris, S. (2002). *Preliminary report of animal bones from Hrísheimur, Mývatn District, Northern Iceland*. CUNY Northern Science and Education Center. NABO. https://www.nabohome.org/download/preliminary-report-of-animal-bones-from-hrisheimur-myvatn-district-northern-iceland/

McGovern, T. H., Vésteinsson, O., Friðriksson, A., Church, M., Lawson, I., Simpson, I. A., Einarsson, A., Dugmore, A., Cook, G., & Perdikaris, S. (2007). Landscapes of settlement in Northern Iceland: Historical ecology of human impact and climate fluctuation on

the millennial scale. *American Anthropologist*, 109(1), 27–51. https://doi.org/10.1525/aa.2007.109.1.27

Miller, W. I. (1991). Of outlaws, Christians, horsemeat, and writing: Uniform laws and saga Iceland. *Michigan Law Review*, 89(8), 2081-2095. https://www.academia.edu/92629239/Of_Outlaws_Christians_Horsemeat_and_Writing_Uniform_Laws_and_Saga_Iceland

Self, K. M. (2010). Remembering our violent conversion: Conflict in the Icelandic conversion narrative. *Religion*, 40(3), 182–192. https://doi.org/10.1016/j.religion.2009.10.011

Sikora, M. (2003). Diversity in Viking age horse burial: A comparative study of Norway, Iceland, Scotland and Ireland. *The Journal of Irish Archaeology*, 12/13, 87-109. http://www.jstor.org/stable/20650833

Stelter, K. D. (2014). *The horse and the Norse: Reconstructing the equine in Viking Iceland*. [Masters dissertation, University of Glasgow]. https://www.academia.edu/8039067/The_Horse_and_the_Norse_Reconstructing_the_Equine_in_Viking_Iceland_MLitt_Dissertation_

Stelter, K. D. (2019). Horses of the dead. *Icelandic Horse Quarterly*, (3), 31–33. https://icelandics.org/client_media/files/magazine/eQuarterly1903.pdf

Stelter, K. D. (2020). Iceland's first horse imports. *Icelandic Horse Quarterly*, (2), 30–31. https://icelandics.org/client_media/files/magazine/eQuarterly2002.pdf

Tinsley, C. M., & McGovern, T. H. (2001). *Zooarchaeology of Aðalstræti 14-16, 2001: Assessment report of the post-medieval contexts*. (Report No. 3). CUNY Northern Science and Education Center. NABO. https://www.nabohome.org/download/adalstraeti-norsec-3-1-zooarchaeology-of-adalstraeti-14-16-2001-assessment-report-of-the-post-medieval-contexts/

Vésteinsson, O., Sveinbjörnsdóttir, Á., Gestsdóttir, H., Heinemeier, J., & Friðriksson, A. (2019). Dating religious change: Pagan and Christian in Viking Age Iceland. *Journal of Social Archaeology*, 19(2), 162–180. https://doi.org/10.1177/1469605319833829

Vésteinsson, O. (2020). Three burial customs in late 10th-century Iceland: Preliminary observations. In A. Pedersen & S. M. Sindbæk (Eds.), *Viking Encounters: Proceedings of the Eighteenth Viking Congress* (pp. 186–197). Aarhus University Press. https://doi.org/10.2307/j.ctv34wmrzq.16

Woollett, J., & McGovern, T. H. (2002). *Interim report of animal bones from the 2002 excavations at Gásir, Eyjafjörður*, N Iceland. CUNY Northern Science and Education Center. NABO. https://www.nabohome.org/download/interim-report-of-animal-bones-from-the-2002-excavations-at-gasir-eyjafjordur-n-iceland/