Kirkjubæjarklaustur Faunal Report 2002-2006 Excavation Season

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The animal remains recovered during excavations between 2002 and 2006 number 1535 in total. Preservation of these remains was better than those recovered further south on the site during later excavations. However, storage conditions since their recovery appear to have been detrimental to the remains as fragmentation and cracking was notably more frequent than evident from the original inventory photographs. No sieving was undertaken, so all remains are hand-collected.

The assemblage is heavily dominated by cattle remains, making up over half of the remains (Tab. 1). Fish are the next most common, however, their NISP is inflated by both fragmentation and likely partial skeletons, e.g. several rib fragments found together and likely originating from the same individual. The majority of fish remains was indeterminate due to fragmentation and preservation, while those that could be identified to a taxonomic level all belonged to the gadid family, with cod (*Gadus morhua*) being the most common species. Among mammals, caprines were the second most frequent animals with 13%. No goats could be identified securely. Bird remains were virtually absent, except for two bones which were not identifiable to a lower taxonomic level. A single coxa fragment of a canid likely belonged to dog. Horse was mostly represented by teeth, frequently fragmented, as well as three limb bones. The high degree of fragmentation of the horse remains overestimates the presence of the species on site; the MNI is 1. One canine indicates the presence of at least one male horse at Kirkjubæjarklaustur.

Less than a third of the assemblage could be dated to the Monastic period of the site. However, the pattern is the same with cattle being the most dominant, followed by caprines and large mammals. Fish are, as before, overrepresented in NISP; only cod and pollack could be identified securely.

Species/Area	**NISP**	**%**	**Modification**	**NISP**	**%**
Cattle	786	51.2	Butchery	52	3.4
Horse	45	2.9	Gnawing	5	0.3
Sheep/goat	149	9.7	Burning	6	0.4
Bovidae	5	0.3	None	1418	92.4
Pig	1	0.1	**Pisces**	**NISP**	**%**
Canid	1	0.1	Gadid	21	5
Phocids	4	0.3	Cod	139	35
Mammal	59	3.8	Haddock	5	1

Mammal large	71	4.6	Pollack	4	1
Mammal medium	9	0.6	Indet.	233	58
Bird	3	0.2	**TOTAL**	**402**	100
Fish	402	26.2			
TOTAL	**1535**	100			

Tab. 1: Number of identified specimens per taxonomic group and percentage of remains affected by anthropogenic modifications.

Cranial fragments are the most common anatomical element, represented mostly by teeth (Fig. 1). Indeterminate fragments make up 13% of the remains and include long bone fragments that could not be identified any closer. Vertebral remains are similarly common while the appendicular skeleton is largely underrepresented. Metapodia are the most frequent limb bones present but only constitute approximately 6% of the assemblage.

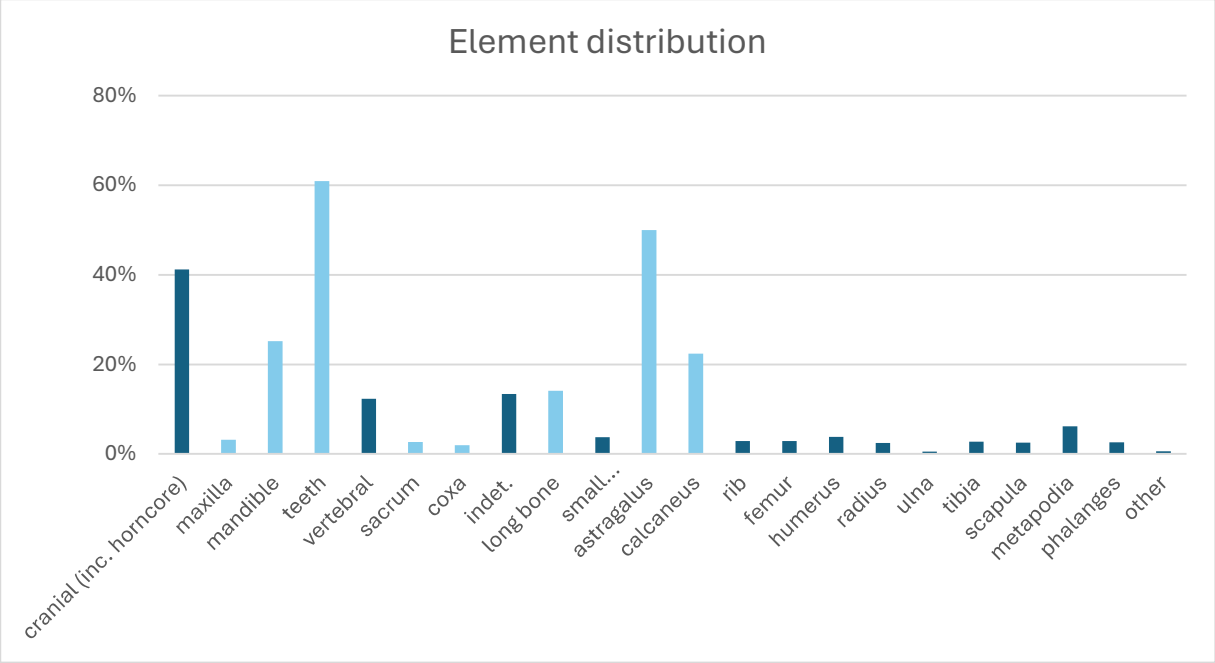

Fig. 1: Distribution of anatomical elements in %. Light blue – subcategories of the anatomical group to the left; their percentages are to the total of their parent category.

Modification of faunal remains is scarce: less than 4% are affected by butchery, burning or gnawing (Tab. 1). Burning and gnawing are especially rare. Three sheep metapodia (two metacarpals, one metatarsal) were double perforated to extract bone marrow (Hamilton-Dyer 2010). Both vivianite and manganese staining was very common in this assemblage.

Fig. 2: Bones with heavy vivianite staining, making them appear bright blue. The often poor preservation and high degree of fragmentation is also evident from this photo. Photo: H. Benkert

Pathologies were observed in 44 instances and presented only in bovids, i.e. cattle and caprines. The majority of these were related to teeth, often showing as abnormal wear. No fractures or other severe pathologies were observed.

Dental wear shows that both caprines and cattle lived mostly into adulthood, although there are some indications for animals at the edge of maturity. This is further supported by epiphyseal fusion which shows at least one calf younger than 7-10 months, and two further bones indicate cattle under 2 years of age. Similarly, one unfused horse radius indicates a horse younger than 15-18 months.

Conclusion

The people at Kirkjubæjarklaustur relied mostly on cattle for their daily subsistence. In contrast, an inventory of the monastery's home farm in the 14th century lists only 94 cattle to 750 sheep (Kristjánsdóttir 2021). The monastery was renowned for the production of woollen textiles, therefore, the relatively low number of caprine remains is unexpected, but may be explained by taphonomical processes. Larger bones tend to preserve better, thus making cattle remains more likely to survive in the soil. Depositional practices may also have influenced the species representation in the archaeological record.

The scarcity of the meatier limb bones may indicate that those parts were sold or traded to other sites, likely as a means of income. This may perhaps suggest that the inhabitants of the monastery followed the dietary restrictions of the Benedictine rule faithfully. As most

animals reached adulthood it can be assumed that they were at least partially exploited for secondary products such as milk. Fish remains were exclusively of gadids, common for Icelandic sites of all periods. Cod in particular seems to have been a favourite during monastic times. The fish was likely brought in from coastal farms owned by the monastery (Júlíusson 2023).

Bone modification was very rare at the site. The lack of gnawing marks indicates that refuse was not easily accessible by scavengers while the scarcity of butchery and burning marks might be suggestive of the relatively meat-free diet of the nuns and other inhabitants. However, the carcass processing may have taken place elsewhere and only boneless cuts were delivered to the monastery.

Due to the size and preservation of the assemblage the scope of the material is limited. However, further analysis of the material may reveal more details about the monastic life at Kirkjubæjarklaustur.

References:

Hamilton-Dyer, Sheila. 2010. “Skriðuklaustur Monastery, Iceland Animal Bones 2003-2007.” 26. Reykjavík: Skriðuklaustursrannsóknir.

Júlíusson, Á. D. (2023). *A tale of two valleys: Settlement, land use and ownership in medieval Iceland*. Reykjavík: The University of Iceland Press.

Kristjánsdóttir, S. 2021. Medieval Monasticism in Iceland and Norse Greenland. *Religions*, *12*(6), 374. https://doi.org/10.3390/rel12060374