

Livestock transport could signify close ties between humans and animals in the Bronze Age

September 9 2019, by Merijn Van Nuland



Depiction of a cattle burial in Bovenkarspel in West-Friesland. Credit: Leiden University

Livestock was already transported over long distances in the Bronze Age Netherlands. That is what researchers from Leiden University and VU Amsterdam have discovered. Publication in the *Journal of Archaeological Science: Reports*.

The researchers made their discovery after studying the teeth of 58 sheep/goats and <u>cattle</u> from the region of West-Friesland in the province of Noord-Holland. They concluded that at least three of the <u>animals</u> had



not been born in that area. That means that there was a long-distance livestock trade in the period between 2000 and 800 BC.

Long-distance trade

"This was a very surprising conclusion," says archaeologist Nathalie Brusgaard, one of the researchers from Leiden University—the other was Professor Harry Fokkens—who was involved in the study. "West-Friesland was very densely populated in that period, which made it very easy to get your hands on a bull stud, for instance, if you needed one. So why livestock was traded over such long distances?"

Brusgaard believes that "something else" is at play, but what that was is anybody's guess. What is clear, however, is that livestock played a more important role than it does nowadays. Burial mounds found in West-Friesland contain cattle bones in earthenware pots, for instance. Brusgaard: "Whereas you'd be more likely to expect a person to be buried with such ceremony."

Strontium isotopes

The researchers studied what are known as <u>strontium isotopes</u> in the teeth of sheep/goats (they could not distinguish between the two) and cattle. The animals ingested the element strontium through their food and it has been stored in their teeth ever since, where it forms a kind of fingerprint of their original environment. This enabled the researchers to conclude that at least three of the animals were not born in the claylike peat soil of North-Holland. Where they did come from is not fully clear, but it was not from within a radius of 50 km. Wieringen, Texel, Twente and Fries-Drents Plateau are among the possibilities.

What could have been the reason for this long-distance trade? Brusgaard



and her colleagues suspect that cattle might have played an important role in creating and maintaining social links, at weddings for instance. "Anthropological research has shown that this is still the case in different East-African societies," says Brusgaard. "The Nuer and Dinka are examples of such cattle complex societies, where humans and animals are closely linked. Cattle are roughly equal to people there."

Brusgaard and her colleagues found the 58 teeth in the depots of Noord-Holland archives. The region of West-Friesland is an ideal research location because the mixture of clay and peat helps preserve houses, stables and animal bones too.

Provided by Leiden University

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