

**A Beaver Tooth Amulet From The Aylsham Roman Project 2016 Excavation
Woodgate Nursery, Cawston Road, Aylsham.**

Report by Julie Curl. Sylvanus Archaeological, Natural History & Illustration Services. April 2017.

Description of the worked tooth

The object was examined under a USB microscope to determine material, to attempt to identify the species, to determine the working and use of the artefact and to allow more detailed photographs to be taken. This microscope examination help to clarify the layers of dentine and the pulp chamber running through the centre of the tooth (Plate 1) which holds the soft cellular tissue including the blood supply and nerves. The pulp chamber is visible and at its widest at the distal end of the object, with a small irregular area of the pulp cavity visible at the proximal, pointed end of the piece - see both end views in Figure 1.

The tooth is a lower incisor of a Beaver (*Castor fiber*), which is a relatively straight tusk-like tooth compared to the Beaver's upper incisor, which is highly curved. The tooth has been heavily, but rather crudely worked on all sides (see Figure 1). The sides of the object have been cut to produce a roughly rectangular shaped body. The greater length of the object is 24.90mm, with a maximum width of 9.10mm (tapering at the pointed end) and with a maximum thickness of 6.97mm, which is reduced at the broken distal end. The object weighs less than 1g.

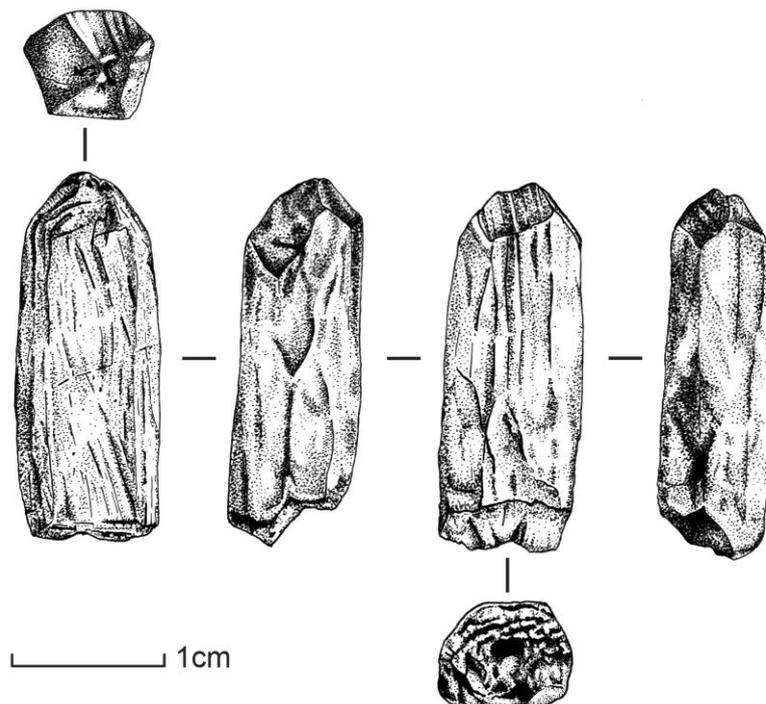


Figure 1. Drawing showing all views of the Beaver Amulet, SF26, Context 2026. Scale 2:1.

Illustration by Julie Curl.



Plate 1. Image taken with microscope showing the layers of dentine and the small area of pulp cavity visible at the pointed end of the tooth. Not scaled.

The amount of working on each surface varies. The original profile of the lower incisor would have been roughly triangular in appearance, with quite curved edges. On the widest surface, which would have originally had the orange outer enamel, the orange outer surface has been trimmed away, so none of the orange colouration survives. The thinner, originally almost pointed inner surface of the tooth has been cut to leave a flatter surface but with a narrower edge than its opposite side. Other surfaces have been trimmed down to form a roughly rectangular shape, with the distal (broken) end of the pieces showing a now six-sided profile, while retaining some of the original shape of the incisor. The pointed end of the object has been trimmed, but some of the facets of the point are more worn and smooth and are likely to have been from the original gnawing wear from tree-cutting on the tooth. The remaining surface show cuts and trimming to shape the piece, but there has been little or no attempt to smooth the cut surfaces, leaving a crudely formed piece with no refinement. At the distal end there are straight cuts that are parallel with the straight edge to one side of the bone and a similar straight cut to one side of the object, with these appearing to trim the object, perhaps to fit in a mount. Some breaking, probably prior to disposal, has also occurred. It should be noted here that the use of the terms distal and proximal are referring to the tooth itself, with the distal end originally within the jaw bone; terms would differ depending on the use of the object and, if suspended with the pointed end hanging down, the terms would be reversed.



Plate 2. Image taken with the microscope to show working at the pointed and the trimming of the distal end of the tooth. Not scaled.

Provenance and preservation

The object is in excellent condition, despite the quite acidic soil conditions in the area. The condition contrasted with the animal bone from the same deposit, which was much more fragile and showing some erosion. The Beaver tooth has retained a high shine which is seen with ivory and evidence of polishing that would have occurred when the tooth was worked.

The object, SF26, was recovered by sieving of the soils from deposit 2026. Associated finds in the fill 2026 included the skull and mandible of a small to medium sized dog of approximately 15 to 16 inches or c.39cm at the shoulder. The tooth wear suggested an adult, but relatively young dog, although the dog had lost two lower teeth and had suffered with some arthritis and injuries. There were some knife cuts on the dog on the tibia, metapodial, mandible and skull, all consistent with skinning. A cattle mandible showing skinning cuts was also seen in the same fill. These remains were in the same pit as further remains of the same dog, an equid tibia showing skinning cuts and pieces of Red Deer antler that showed some butchering evidence that indicated working waste (Curl, 2017).

The waste pit that the Beaver tooth and associated finds were produced from was found in close proximity to two pottery kilns of a Mid 2nd to Mid 3rd century date. Nearby is the site of a Roman Villa. The surrounding area includes prehistoric activity including Iron-Age remains and a non-funerary pot, of a Beaker style, dating to the Late Neolithic/Bronze-Age period.

Discussion

There are few Roman finds of Beaver known, with finds seen at Shapwick in Dorset with Beaver molars from 2nd century ditch fill associated with bones of cattle, sheep, deer, badger and Raven and in a 2nd to 3rd century wealthy house in Corbridge in Northumberland with a mandible tool (Coles, 2006). In East Anglia there was a single Beaver radius found in a Roman ditch fill at Mildenhall (Curl, 2013); this Beaver radius had been chopped, attesting to the use for meat and probably fur. Beaver finds from secure Roman contexts are certainly rare. The Beaver tooth find from Woodgate in Aylsham is the first known Roman evidence for Beaver from Norfolk. However, it must be stressed that it is not certain that this tooth came from a Beaver living in Norfolk at that time. There is a possibility that the tooth originated from elsewhere in the country, or even from Europe, and was brought to the site by a travelling person, such as a potter or villa builder and may have been in the persons possession for many years.

The Beaver remains from Shapwick and Corbridge came from relatively wealthy contexts (Coles, 2006). The remains from Mildenhall (Curl, 2013) probably of less high status, but in an area close to wetland sites where Beavers may have lived and at Mildenhall they might have been readily available for use. Overall, Coles (2006) states that there is no cultural evidence to suggest Romano-British use of beaver incisors, molars or jaws as tools.

Aside from Roman finds, numerous Prehistoric sites have produced Beaver, with evidence for skinning, probable consumption and some tool use. Beaver tooth amulets are known from Britain, but these have only been recovered from Anglo-Saxon deposits. A notable feature of Anglo-Saxon people is the burial of the dead with grave goods and several sites have produced graves with Beaver tooth artefacts in the form of pendants or amulets, many with collars and suspension rings or piercings for hanging. It is interesting to note that the graves with these Beaver teeth are usually women or children. Teeth of domestic stock, including cattle, pig horse and dog are also used as pendants, boars teeth and bears teeth have been seen with suspension holes from a Prehistoric and later date range. Teeth were thought to have had protective properties for the wearer and thought to help the health and strength of the teeth.

The Beaver was a much sought after animal for its high quality pelt, medicinal uses (aspirin from consumed Willows in the glands), meat and the tail is a good source of fat. The Beaver was relatively common in wetland areas until the medieval period in parts of East Anglia, although more so in Suffolk, Cambridgeshire and the Fens, with Norfolk finds uncommon in all periods. An undated find of Beaver is known from Mildenhall and pre-Roman finds are known from Norfolk at Hockwold cum Wilton, Micklemoor Hill and Poppylot (Coles, 2006) and an Iron-Age Beaver was identified from Long Melford (Curl, 2012). Saxon examples are known from Suffolk at Sutton Hoo (Coles, 2006) and Eriswell (Curl, 2010), 8th century Beaver remains were seen at York (O'Connor, 1991), in Norfolk, there was Beaver in one burial in the Anglo-Saxon cemetery at Spong Hill (Bond, 1994).

It is possible that the scarcity of Beaver in Roman contexts might suggest that these animals had become relatively scarce, even locally extinct, by the Roman period, probably from over-hunting for fur and by-products in the Iron-Age, although their remains are known locally from Saxon and occasionally Medieval sites. It is likely that the Beavers reacted to the pressures of hunting and adapted to human predation with a change of habits and perhaps

even a change in Roman preferences, resulting in a decline in Romano-British evidence. If there might have been a lack of a need for Beavers in the Roman period, this may have led to an increase in later centuries (Coles, 2006).

This piece was initially thought to be a possible bone tool and perhaps a potters stamp due to its discovery in a waste pit close to the two Roman kilns. However, the trimming of the object far exceeds what would be required if this was simply a stamp, where the pointed end would presumably be used for leaving impressions. Also, the size of the piece might be too small for manipulation while working with clay and decorating pots. If used as a stamp, a beaver tooth tool might be left whole so that the long length of the original tooth could be held and only the pointed end would be worked, it might have even been left in the mandible to provide a larger area to hold, as with some Prehistoric finds.

The pointed end would have been worn from the Beaver gnawing at wood and this wear, with its smooth facets, have been extended manually to create more of an aesthetically pleasing point. The distal end of the piece has been straightened by cutting, although it shows some breakage, such trimming of the tooth is most likely to have been done to fit the worked tooth into a mount. No evidence of a mount was found and there are no traces of copper or iron staining on the tooth, but it is likely that this piece was an amulet, either in a mount or carried in a small bag, perhaps with other objects. It should be noted that a mount of silver or gold would leave no staining on the ivory, so this material might be possible if a mount was used, but is lost. Audrey Meaney (1981; Coles, 2006) notes that while a range of species teeth have suspension with a variety of less expensive materials, only Beaver teeth have been set in gold, indicating that they are particularly valued.

Conclusions

The Beaver incisor object from Aylsham is most likely to be an amulet, rather than a tool. The piece appears to have been worked for a mount and the lack of staining on the surfaces might suggest a gold or silver mount, which may have been lost or perhaps re-used when the worked tooth was broken at the end of the bone. It may be possible that while the object appears to be worked for a mount, this may not have been possible and the object was carried in a bag.

While the working suggests a mount, the object is crudely made and not finished to a high, aesthetically pleasing standard that might be seen if it was intended for suspension on mount for a high status item. The discovery of this object in a waste pit with dog, cattle and equid skinning waste and antler working waste further suggest this particular object was not thought of as high status, at least not at its time of deposition.

The lack of a mount, the crude working and lack of refinement in this piece, its final burial place and associated finds could perhaps lead to questions regarding the owner and carrier of this amulet, especially taking into account the protective properties that teeth held for protecting the teeth of the wearer, with Beaver teeth probably noted for their strength to cut down trees.

Given that the Beaver tooth amulet at Aylsham was found in the same deposit as the remains of the dog and in the same soils as the dog skull and mandible, might it be possible that the dog could have been wearing this amulet in a small bag or just stitched into cloth or leather on the dog's collar? The dog, while relatively young, had suffered with her teeth and

had a lower mandible tooth missing on both the left and right side, where the bone had healed over (Curl, 2017). Taking into account that modern, 21st century dogs can be seen wearing a variety of collars, some with objects like beads, crosses and even one seen wearing a St. Christopher for protection, it may be possible to speculate that the Aylsham Roman dog's owner might have collected, traded, bought, found or even stolen a beaver tooth to provide protection for the dog's teeth. If in a bag or stitched into a collar itself, the valuable and rare amulet may have gone unnoticed when the dog was skinned and discarded – hence the burial of such an unusual item with a skinned dog in a Roman waste pit?



Plate 3. SF26, Beaver incisor amulet from context 2026. 1cm scale.

Further work

This is a rare and important find that has potential to provide more information on the use of amulets in the Roman period and extends the finds for this species in the Roman period. The crude working and uncertain ownership of this object further adds to the interest. While this report and illustrations have been produced, there is scope for further work. Additional references to Roman and other period Beaver finds will be sought. It may be possible to access other Beaver finds for comparison. Copies of this report will be sent to Ian Riddler and Nicola Trzaska-Nartowski, both small finds specialists with a particular interest in worked bone, antler and ivory for their reference with future finds of Beaver artefacts. A copy of the report will also be sent to Bryony Coles, who produced the book *Beavers in Britain's Past* and who has extensively studied Beavers in Britain for many years as the Aylsham Roman project find is likely to be of great interest to her.

Acknowledgements

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