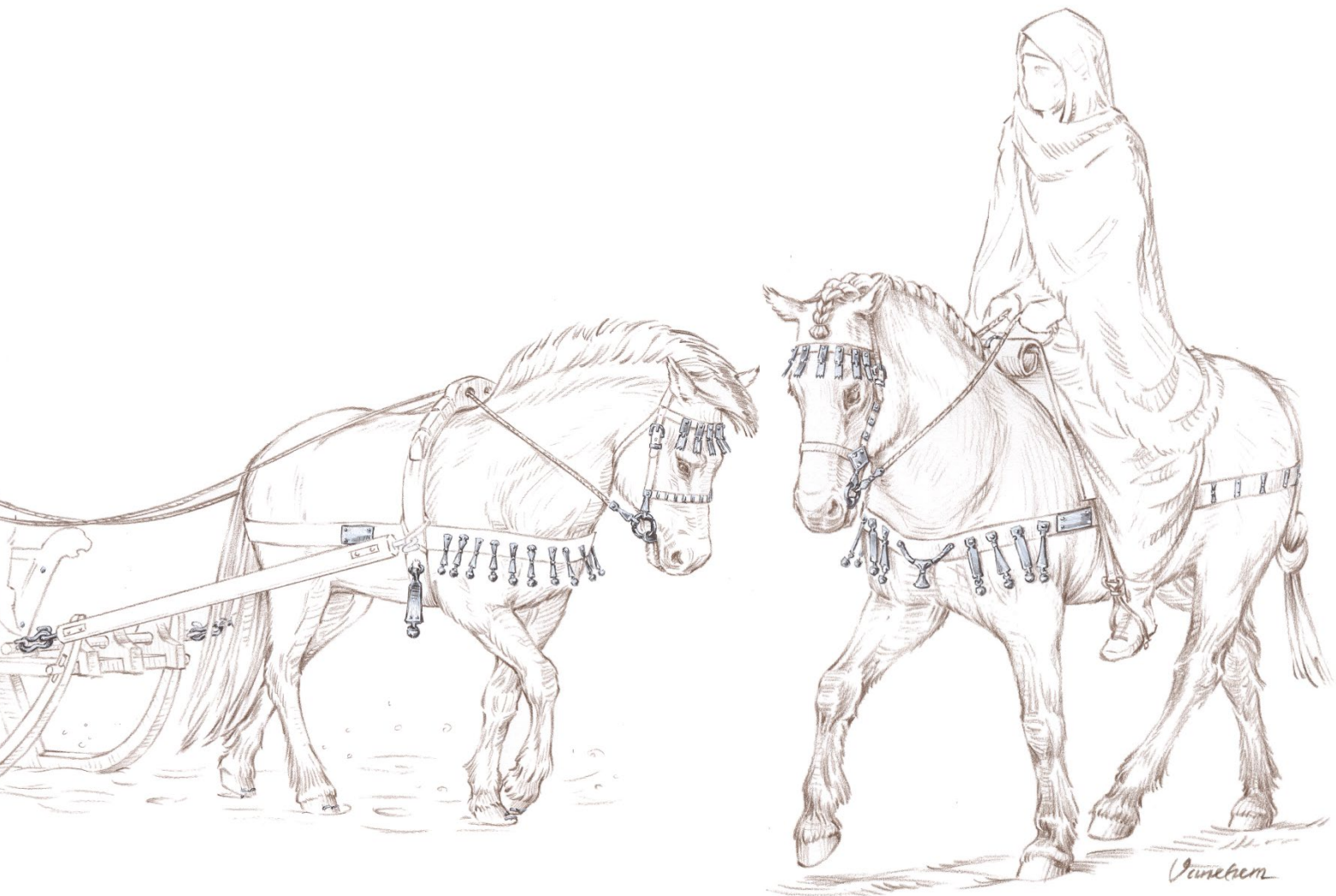


Current Archaeology

NEW FINDS – BELOVED HORSES!

- Unique Horse Equipment from the Viking Age

The Swedish History Museum in collaboration with The Archaeologists 2026



Illustrations of the horse equipment found in graves 630 and 621. The grey details indicate the preserved parts. Illustrations by Mats Vänehem.

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INTRODUCTION

When archaeologists investigated a burial ground in Sylta, Västmanland, in 2021 ahead of the widening of the motorway (E18) between Köping and Västerås, they uncovered unique horse equipment from the Viking Age.

The finds show that the people of Sylta had strong bonds with their horses – one of the Iron Age’s most important domesticated animals.

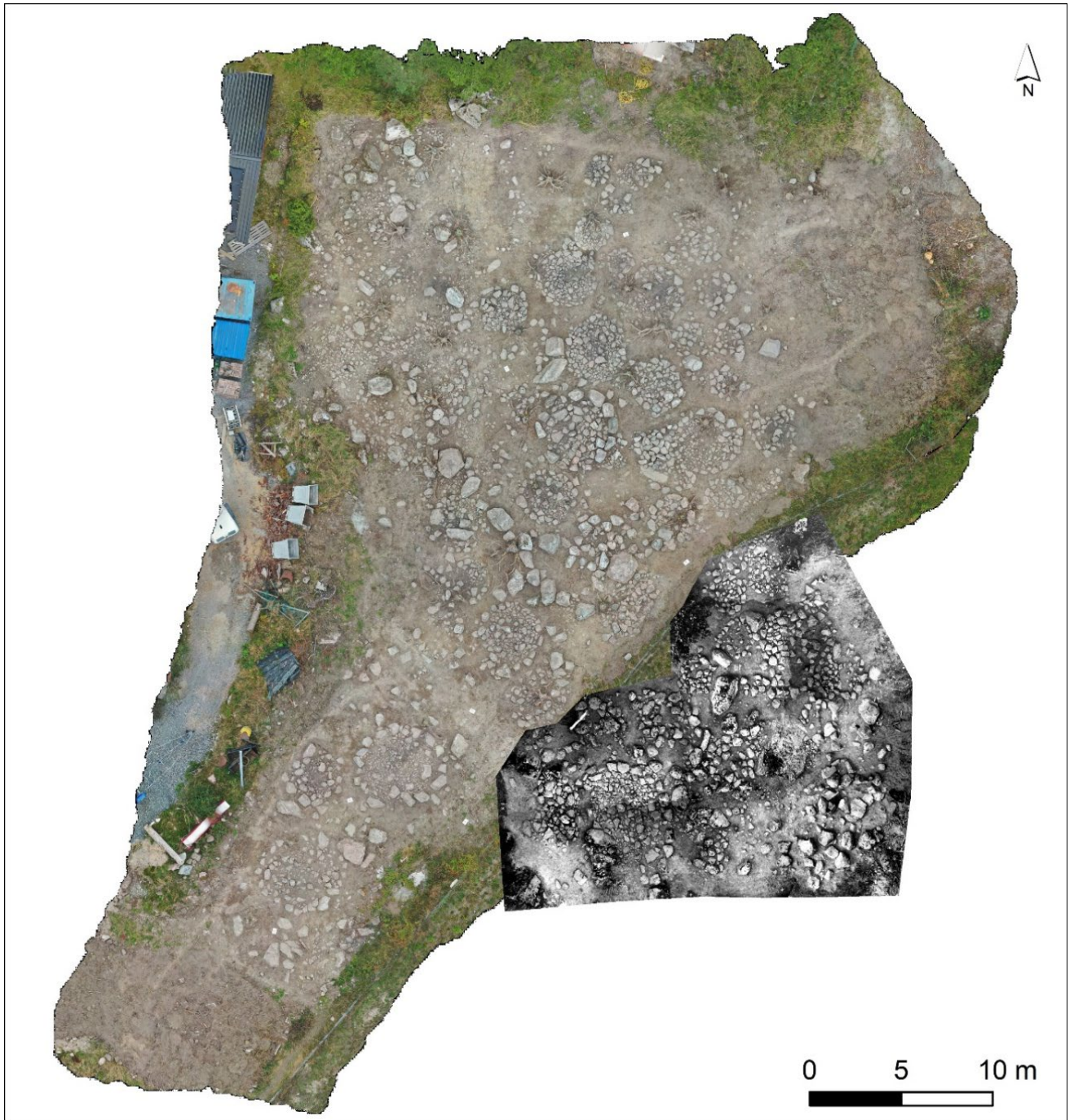
THE HORSES OF SYLTA

During the Viking Age the pounding of hooves and the ringing of bells could be heard on the roads and in the forests around Sylta in Västmanland.

On a hill overlooking the surrounding plains, there stood a farmstead and its associated burial ground. The graves, which were examined by archaeologists in 2021, date from the 9th century up to the year 1200. Horses were found in 24 of the 51 graves, several with unique horse tack. The majority of the horse graves date from the 11th century. The later graves, from the early Christian period, contain no horses.



The burial ground at Sylta, to the left of the E18 motorway. The graves take the form of circular stone circles. Photo: The Archaeologists/SHM (CC BY).



Two pictures showing the graves from both excavations at Sylta. The one from the 1960s is in black and white, and the one from 2021 is in colour. Photo: The Archaeologists/SHM (CC BY).

THE GRAVES & THE PEOPLE

During the 11th century, men, women and children were buried alongside horses in the burial ground at Sylta. The horse was a significant animal, not only in this life but also as a means of helping the deceased reach the realm of the dead in the afterlife.

All the graves in Sylta were so-called cremation graves, where the dead were cremated on funeral pyres. Several of the buried individuals were also accompanied by other domesticated animals such as dogs, cats, goshawks and chickens. The graves also contained burnt bones and personal items such as beads, combs, knives, scales, needle cases, tools, weapons and pottery.

The early medieval graves in the burial ground show that those who lived on the farmstead continued to adhere to older burial traditions even after Christianity had become established – but stopped burying the dead with animals. Christians were usually buried at the local church, not, as here, next to the farmstead.



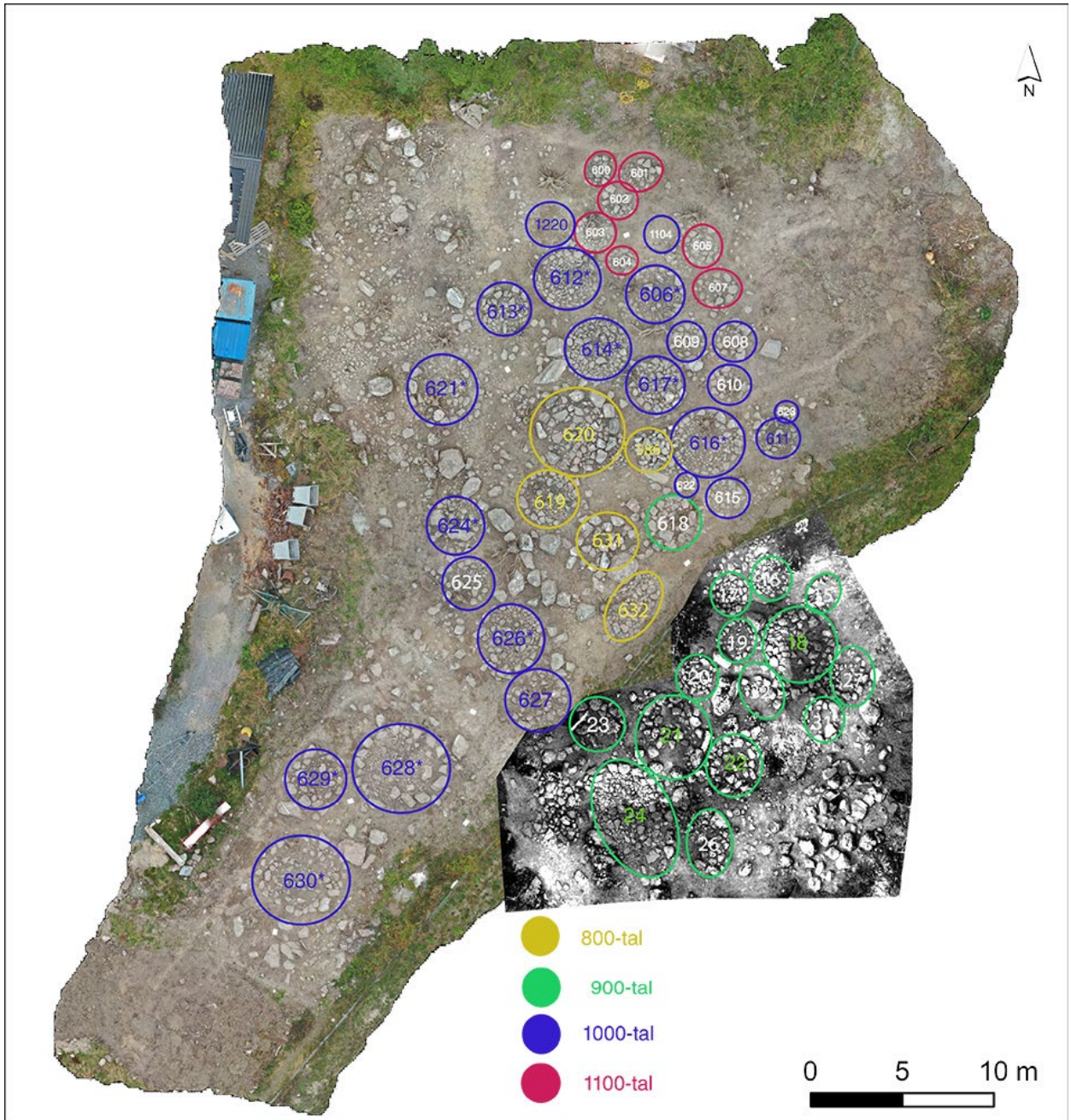
A cairn during excavation. The graves were circular stone settings, between two and seven metres in diameter and often 0.3 metres high, which equates to approximately 1,000–20,000 kilograms of stone per grave. Photo: The Archaeologists/SHM (CC BY).



Grave 611. Photo: The Archaeologists/SHM (CC BY).



*Bone layer with horse equipment, grave 621.
Photo: The Archaeologists/SHM (CC BY).*



Map of the graves, showing their numbers and the different centuries. The graves marked in colour are horse graves. Map: The archaeologists and Linda Wähländer (CC BY).

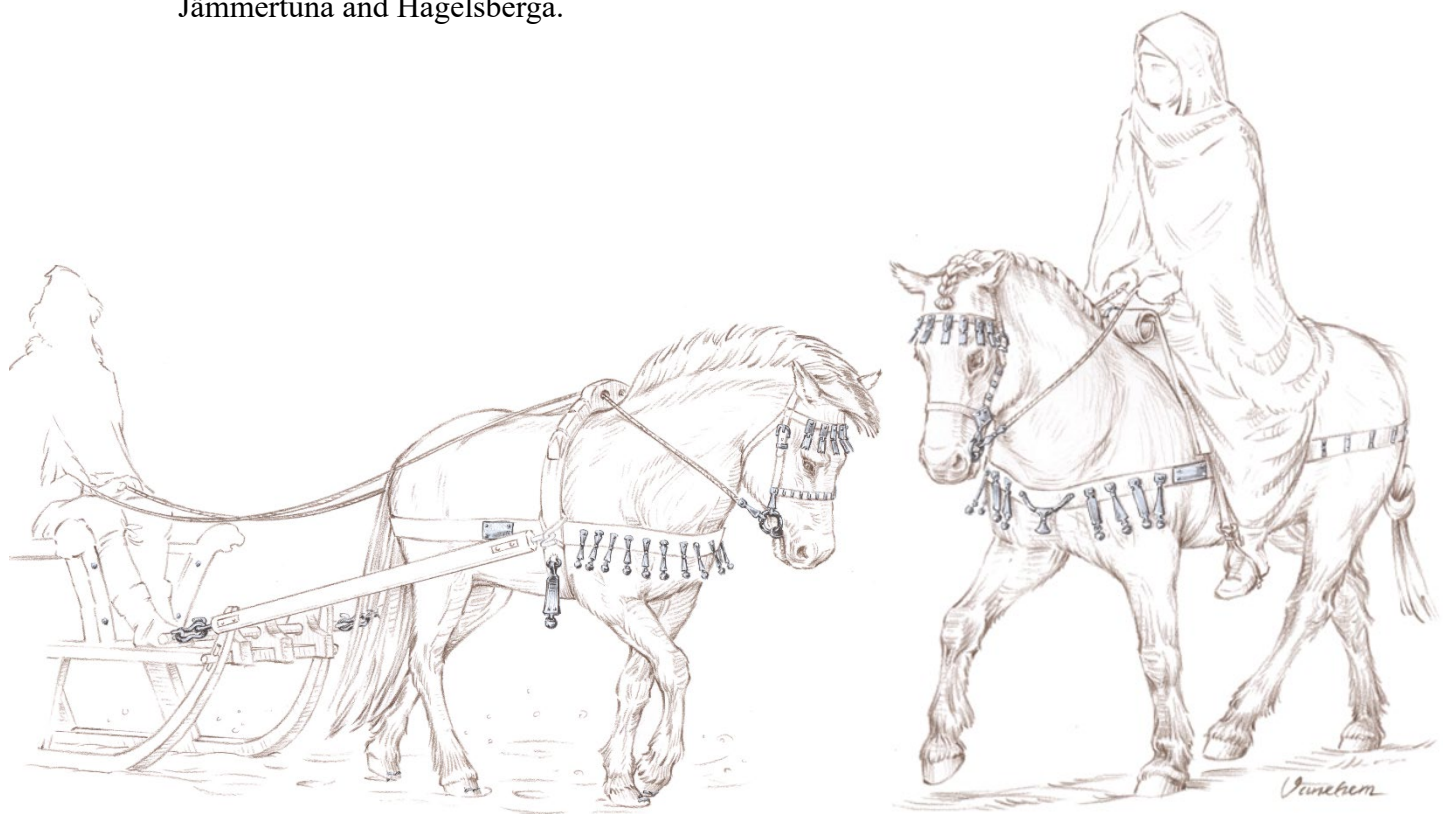
11TH-CENTURY HORSE EQUIPMENT

In the 11th-century burials, horse bones were identified in 15 out of 23 graves. Several of the horses were wearing unique horse tack.

The archaeologists who carried out the excavation at Sylta have their theories about the horse tack, which has a distinct style. Perhaps there was a local style of horse tack specific to the area around Sylta!

In total, the archaeologists found over 500 iron objects of various kinds that had been attached to the horses' bridles, harnesses and hooves. Some horses were equipped for riding, others for pulling a cart or sledge. No stirrups were preserved, but two graves contained spurs. If they used stirrups, these may have been made of wood, which has not survived in the soil.

Investigations of other burial grounds from the Early and Late Iron Age in the area around Köping reveal a wide variety in both grave contents and grave forms. Equestrian graves from the late Viking Age, containing weapons and horse equipment, have been found in Raglunda, Jämmertuna and Hagelsberga.



Colour illustrations of the horse-riding equipment from grave 630, featuring a sleigh horse, and grave 621, featuring a rider. Illustrations: Mats Vänehem.

THE OBJECTS

The objects on display are made of iron and date from the 11th century, a period marking the end of the Viking Age and the dawn of the Middle Ages.

Horse related objects from Sylta (excluding bone material)	Material	Amount 2021	Amount 1962	Sum
Bit	Iron	6	1	7
A fitting for a halter	Iron	3		3
Swivel	Iron	1		1
Strap fittings	Iron	106	2	108
Hanging fittings	Iron	122	7	129
Bell	Iron	58	1	59
Strap clasp	Iron	116		116
Strap rivet	Iron	11	1	12
Strap keeper	Iron	2		2
Fittings	Iron	4		4
Strap buckle	Iron	41	2	43
Tow hook	Iron	2		1
Tow chain	Iron	1		1
Suspension hook	Iron	1		2
Stud	Iron	20	3	23

1. The Horse from Grave 617

In several of the graves dating from the 11th century, the remains of cremated horses were found. These bones are from grave 617, in which the deceased was buried alongside several animals, including a goshawk.



Cremated horse bones from grave 617. Photo: Anton Seiler, SHM (CC BY).

2. Bits for bridles

The bits come from graves 616 and 621 and are typical of the finds from Sylta. Single-jointed bits were found in seven graves. The bit with four strap fittings shows that two of the fittings were attached to the reins and two to the bridle. The bits vary in length, indicating that the horses were of different sizes.



Bit. Grave 616 from AD 1000–1050, containing strap fittings for a bridle and reins. The bit measures 143 millimetres in length. Photo: Henrik Pihl, The Archaeologists/SHM (CC BY).



Bit. Grave 621 from AD 1000–1100, containing strap fittings for a bridle and reins. The bit measures 112 millimetres in length. Photo: Henrik Pihl, The Archaeologist/SHM (CC BY).



Bit. Grave 630), dated to AD 1000–1050. One fitting is missing. Not on display. This is the bit for the sleigh horse, and the part of the bit that is worn is 120 millimetres long. Photo: Henrik Pihl, The Archaeologists/SHM (CC BY).

3. A fitting for a halter

This object from grave 626, belonging to a man, has been interpreted as part of a halter fitting with hanging amulets featuring rolled-up ends. Similar objects were found in graves 616 and

630 (the sled illustration) and also appear in other contexts in finds associated with horse tack,



where they are referred to as whip fittings or rattles.



Fitting for a halter. Grave 626 with hanging amulets. Photo: Henrik Pihl, The Archaeologists/SHM (CC BY).

4. Swivel

A swivel with a decorative element on the neck, grave 616. It consists of a double-folded strap attachment with an eyelet-shaped, rotating part. A swivel is a rotating fastening device that prevents ropes, halter straps, reins or lead ropes from twisting and becoming tangled.



Swivel. Grave 616. Photo: Henrik Pihl, The Archaeologists/SHM (CC BY).

5. Strap fittings

At Sylta, 108 strap (or harness) fittings were found, distributed across 14 graves. These nine examples display different styles and were attached to different parts of the horse's harness. Three of the fittings from grave 621 are depicted in the illustration of the rider. The large fitting, for example, has been interpreted as having been attached to the front of the horse's chest.



Strap fitting with four distinct rivets and rivet washers. Grave 626, front and back.



Strap fitting. Grave 626, front and back.



Strap fitting. Grave 617, front and back.



Strap fitting. Grave 606, front and back.



Strap fitting. Grave 614, front and back.



Strap fitting. Grave 606, front and back.



Strap fitting. Grave 621, from the front and the back. See The illustrated rider.



Strap fitting. Grave 621, front and back. See The illustrated rider.



Large strap fittings. Grave 621, front and back. See The illustrated rider. All strap fittings have been photographed by Henrik Pihl, The Archaeologists/SHM (CC BY).

6. Hanging fittings

A total of 129 hanging fittings were found in Sylta. There were hanging fittings in 10 graves in Sylta, totaling 129 pieces. The fittings feature various decorations, and those with three prongs are typical of Sylta. The stylized shape of the fittings shows that the people of Sylta had their own distinctive style for their horses – a veritable fashion statement for horses!



Hanging fitting. Grave 606, front and back.



Hanging fitting. Grave 627, front and back.



Hanging fitting. Grave 616, front and back.



Hanging fitting. Grave 614, front and back.



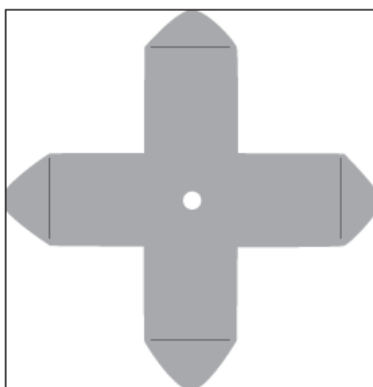
*Hanging fitting. Grave 628, front and back.
All hanging fittings are photographed by Henrik Pihl, The Archaeologists/SHM (CC BY).*

7. Bells

A total of 59 bells were found in ten different graves, four of which contained a particularly large number of bells. One of the bells still works, and the archaeologists were able to hear its tinkling sound for the first time in 1,000 years!

The bells ensured that horses and riders could be heard as they came galloping along paths, roads and across the ice. The sound could warn pedestrians or other riders. Especially on the winter snow, it would otherwise be very quiet with a horse and sledge. Perhaps the sound could also scare away wild animals or dangerous creatures in the forest?

Some of the bells may have been covered in copper, causing them to shine in the sun.



Sketch of the bell casings in their unfolded state. A metal wire with a small ball is inserted into the hole to produce the ringing sound of the bell. The casings are then folded and shaped into a spherical bell.

Sketch: The Archaeologists.



*Bell. Grave 628,
front and back.*



*Bells. Grave 621, front and back.
See the illustrated rider.*



*Bell. Grave 630, front and
back. See the illustrated sleigh
horse.*



*Bell. Grave 630, front and back. See the
illustrated sleigh horse.*



*Bell. Grave 616,
Front and back.*



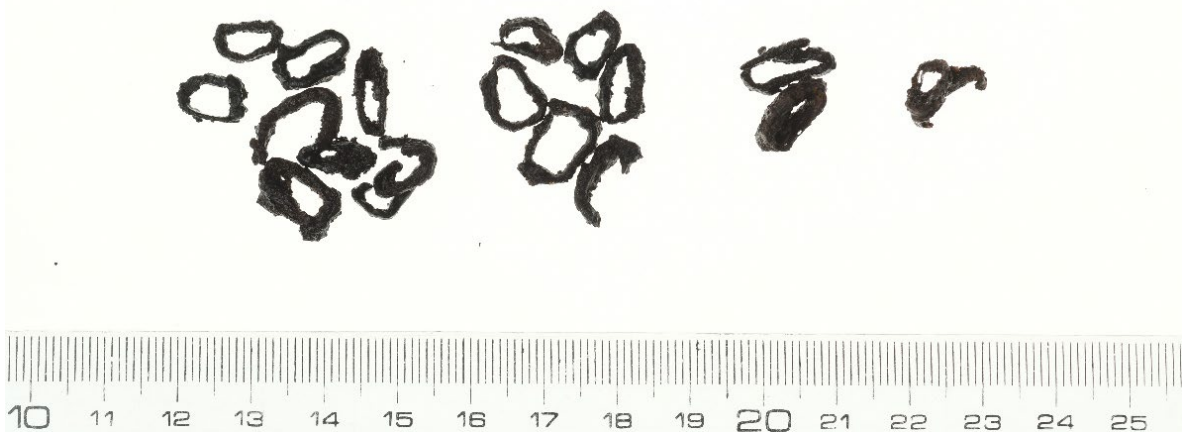
*Bells. Grave 617, front and back.
All photos of bells by Henrik Pihl, The Archaeologists/SHM (CC BY).*



*Bell. Grave 6,
front and back.*

8. Strap fasteners

Nine graves contained small fasteners that had been attached to leather straps. Thin iron sheet were cut into long, narrow strips which were then folded together. The number ranged from one per grave to 39 in a single grave. These are from grave 628.



*Strap fasteners. Grave 628. Photo: Henrik Pihl,
The Archaeologists/SHM(CC BY).*

9. Strap rivets

Six graves contained strap rivets. They are short and were riveted through leather 2–3 millimetres thick. Seven strap rivets with domed heads, approximately 15 millimetres in diameter and with rectangular rivet washers, were found in grave 624.



Strap rivets. Grave 624. Photo: Henrik Pihl, The Archaeologists/SHM (CC BY).

10. Strap keepers

Two cross-shaped iron objects, which are difficult to interpret, were found in grave 611. They are not previously known from other Iron Age finds, but archaeologists refer to them as strap keepers.



Two strap keepers. Grave 611, front and back. Photo: Henrik Pihl, The Archaeologists/SHM (CC BY).

11. D-shaped buckles

From the burial ground at Sylta, there are 43 buckles from 13 different graves and of seven different types. All but two of the buckles come from 11th-century graves. Five of the graves (616, 617, 621, 628 and 630) stand out for their large number of buckles. A total of 10 buckles were found in grave 616!



Buckle. Grave 628.



D-shaped buckle. Grave 630. Possibly part of a saddle girth.



D-shaped buckle. Grave 617. Possibly part of a bridle.



D-shaped buckle. Grave 614. Possibly part of a bridle. Photos: Henrik Pihl, The Archaeologists/SHM (CC BY).

12: Towing hooks and suspension hook

There are three hooks from the graves dating from the 11th century; two are towing hooks and one is interpreted as a suspension hook. The towing hook and tow chain (see artefact number 13) formed part of the towing mechanism attached to the horses' harnesses.



Towing hook. Grave 614.



*Towing hook. Grave 630.
Not exhibited!*



Suspension hook. Grave 621.

*Photos: Henrik Pihl,
The Archaeologists/SHM
(CC BY).*

13. Tow chain

The tow chain comes from grave 630, which also contained a tow hook. See the illustration showing a sleigh horse. The tow rope and tow hook are part of the towing equipment that was attached to the horses' harnesses.



Tow chain. Grave 630. Photo: Henrik Pihl, The Archaeologists/SHM (CC BY).

14. Studs

In Sylta, 23 studs were found, 14 of which date from the 11th century. The studs are bent, indicating that they were attached to the horses' hooves.

The studs with raised edges were probably positioned against the front of the hoof. Such horse studs have been found in graves 614, 619, 628, 617, 626 and 630.



Horse studs. Photo: Anton Seiler, The Archaeologists/SHM (CC BY).

15: Spurs

Spurs were found in three graves, one dating from the 10th century and two from the 11th century. The two identical spurs from grave 630 lay in the container for the bones within the grave, together with other objects. Their shank is six centimetres long and has a hexagonal cross-section, ending in a rounded, pointed tip.



The spurs from grave 630 as they were found. Photo: Anton Seiler, The Archaeologists/SHM (CCBY).



One of the spurs from grave 630. Photo: Henrik Pihl, The Archaeologists/SHM (CC BY).

HORSE BREEDING AND FARMING

Compared with other burial grounds from the same period, there are an unusually large number of horses in the cemetery at Sylta. Horses during the Viking Age were somewhat smaller than they are today and can be compared to modern Gotland ponies or Icelandic horses.

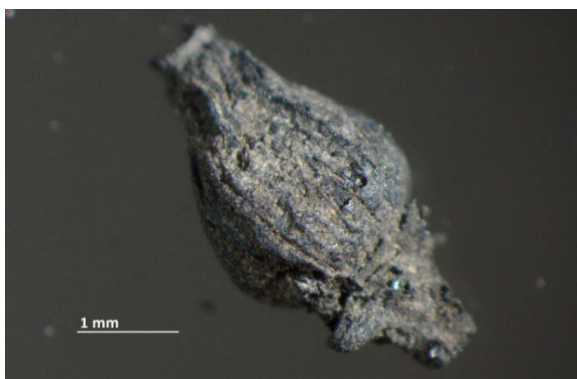
Could the people of Sylta have bred horses? Did people breed horses themselves on their farms during the Viking Age, or were there specialist horse breeders who sold horses at markets?

The people of Sylta grew crops such as oats, and together with traces of meadow plants, this may have been the food for the horses. The food the horses ate therefore contains local strontium levels, which have left traces in the horses' skeletons. Strontium – a substance found in bedrock, soil and water – can reveal whether a person or animal has lived their entire life in the same geographical location or moved across different areas.

Strontium analyses have been carried out on seven of the horse bones found in Sylta. The analyses were carried out on the temporal bone (*pars petrosa ossis temporalis*), a part of the skull that surrounds the inner ear and is particularly dense. The analyses showed that five of the horses were from the area around Sylta, whilst two of the horses came from areas further north. This could indicate that some horses were brought in from elsewhere as part of the horse breeding programme.



Cremated horse bones. Grave 617. Photo: Anton Seiler, The Archaeologists/SHM (CC BY).



Pearl barley. Grave 624. Photo: The Archaeologists/SHM (CC BY).



Cereals: peas, oats and emmer wheat. Grave 628. Photo: The Archaeologists/SHM (CC BY).

HORSES IN THE VIKING AGE

Horses appear in many different contexts during the Viking Age. We encounter them as workhorses and warhorses, as sacred animals, in religious and ceremonial settings, as sacred horses, and in graves to accompany the deceased to the realm of the dead. We also encounter them as mythological figures on jewellery and runestones, as well as in written sources.

The horse was the fastest means of transport on land, whether ridden or harnessed to a cart. In winter, horses pulled sledges across frozen waterways. A fast but also dangerous mode of travel. On long-distance journeys by boat, horses were sometimes taken on board. It is clear that they were well-trained and valuable in Viking society.

Perhaps the most famous horse in Norse mythology is Odin's eight-legged horse Sleipnir, also known as the Horse of Hel as he knew the way to the realm of the dead. The god Frey also has a horse – Blodighov.

The horses Skinfaxe and Rimfaxe pulled the sun and moon across the sky day and night.

With the advent of Christianity, it became forbidden to eat horse meat all year round, and this has remained taboo almost to the present day.

**” Washed and dressed,
the man rode to the assembly,
though his clothes were shabby!
Let no one be ashamed
of their shoes or knee-length trousers,
nor of their horse,
even if it's a poor one!”**

Havamal 6 (Erik Brate)



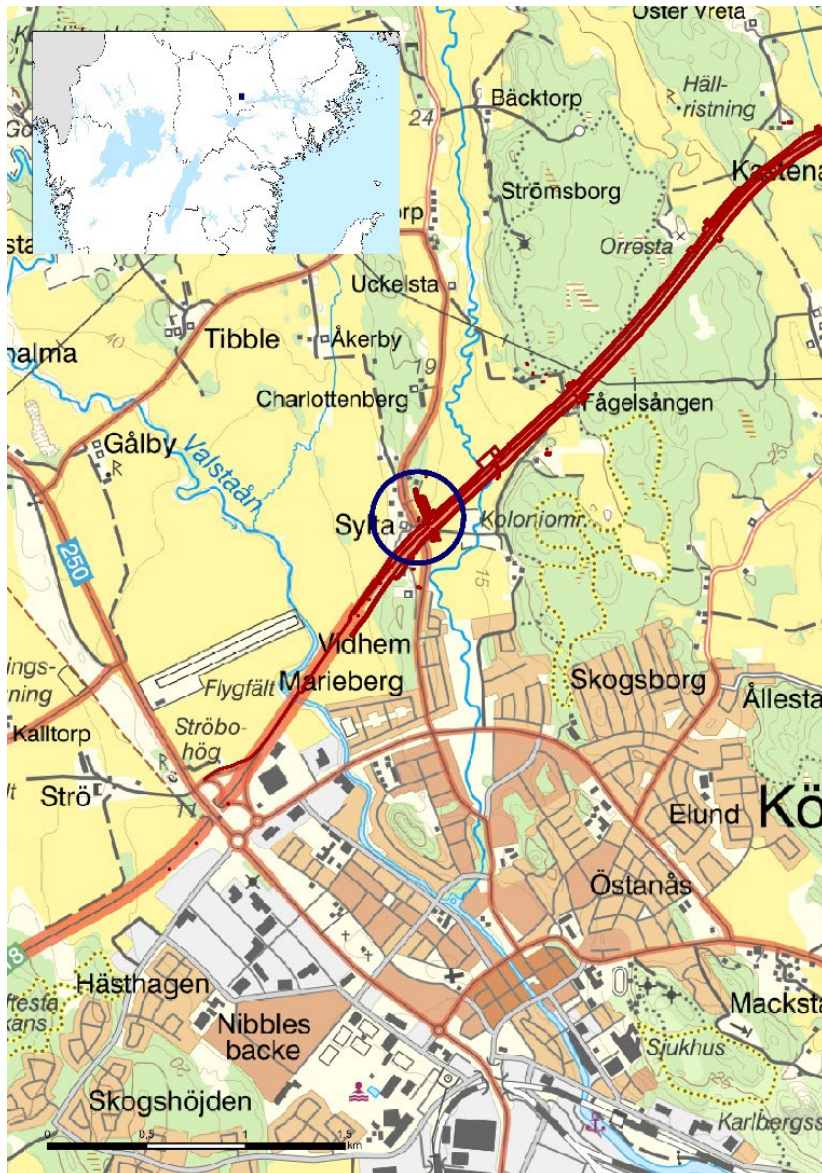
**” Frej is the best
among the bold riders
in the courts of the gods...”**
Lokasenna 37 (Erik Brate)

The picture stone from Tängelgårda on Gotland depicts several horses, one of which is Odin's horse Sleipnir. Two silver harness fittings from grave Bj 825 in Birka. Photo: Christer Åhlin, SHM (CC BY 4.0).

SYLTA TODAY AND THE FUTURE OF THE ARTEFACTS

Sylta is still there, but the widened road now runs across the old burial ground...

The excavated objects will be preserved and most likely end up at the Västmanland County Museum, where the rest of the material from the 1960's excavation is kept.



All texts are available to download at historiska.se

The exhibition will run until spring 2027

RECOMENDATIONS FOR FURTHER READING

Fornlämningar: Sylta Köping stad, Köping Gravfält, hägnad (L2003:2529, L2021:379 och L2021:403).

[Vikingarna från Sylta | Arkeologerna](#)

[Västmanlands forntid väcks till liv | Arkeologerna](#)

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