

# Equine Equipment

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The cavalry was an essential, if under-exploited, component of the Roman army, particularly in the early Imperial period. Nevertheless, the artifactual evidence serves to confirm the ubiquitous presence of horses in a military context. The degree to which civilian horsemanship is reflected by the finds is debatable, but it may be anticipated that equine equipment recovered from the archaeological record is largely a result of horse riding by officers in the *legiones* and *auxilia*, *equites* attached to the legions, and cavalrymen serving with the *alae* and the *cohortes equitatae*. The components are very distinctive and their functions comparatively easy to deduce. It should be pointed out that the dearth of both representational and artifactual evidence for the period means that virtually nothing is known about the equipment of republican cavalry.

## Harness

The modern understanding of Roman military equine harness derives from the interpretation of detailed depictions on cavalry tombstones combined with archaeological examples of the various surviving components. As in all periods, the essential elements of Roman military cavalry harness were designed to provide the rider with a secure seat on and accurate control of his mount. The first element was on the rump of the horse and prevented the saddle sliding forwards; the second was on the front of the horse and stopped the saddle moving backwards; the third was the saddle itself (together with the girth); and the fourth was the headstall and bridle.

During the 1st century CE, representational tombstones, especially those in the Rhineland, were sometimes extremely accurate in their observation of detail and can profitably be compared with surviving archaeological artifacts. The relief showing Flavius Bassus (an *equus of ala Noricorum*) from Cologne, Germany, is one of

the finest and reveals the principal elements outlined above as well as showing many of the decorative, rather than functional, features found on equine equipment.

Harness straps of the early Imperial period do not survive, even on sites where tanned leather is recovered, which may be indicative of a different type of leather preparation being used, such as oiling or alum tawing. Mineral-preserved remains have occasionally been found in corrosion products on decorative *phalerae* (as on an example from Xanten, Germany, in the British Museum). These indicate an average width for straps of about 20 millimeters, with a row of stitching along either side (a measure probably designed to avoid undue stretching of the leather, although it may also indicate that the strap was double thickness). On the other hand, leather harness straps with a complete set of fittings have been recovered from a 3rd-century CE tumulus at Celles-les-Waremme, Belgium, possibly indicating the use of vegetable-tanned leather at this period.

## Junctions

The various elements of the harness were joined by two types of junctions, either rings or discs (*phalerae*). The straps were attached to the rings or *phalerae* by means of junction loops, metallic fittings riveted to the strap ends and looped around them. If a ring junction, then the loop simply passed through the ring and was free to move around it; if a *phalera*, then the loop was attached to (and constrained by) a small ring, either hidden behind the face (during the 1st and early 2nd century CE) or on the periphery of the disc (during the later 2nd and 3rd centuries). From the 2nd century CE onwards, openwork junctions were introduced, combining the simplicity of the ring junction with the decorative effect of earlier *phalerae*. Five principal junctions were employed: one at the breast, two at the shoulders, and two at the haunches.

Examination of 1st-century tombstone depictions, together with archaeological examples of these junctions, enables the functional aspects of the harness to be reconstructed. The front

element of the harness normally consisted of a junction on either shoulder of the horse attached at the front to a breastplate passing around the front of the horse with a central junction on the breast of some (but by no means all) animals (examples being Romanus Capito from Mainz, Germany, and Carminius Ingenuus from Worms, Germany). To the rear of each shoulder junction, one or two straps passed to the front horn of the saddle (to which it was presumably attached) on that side. Shoulder junctions were often depicted with a pendant or pendant strap attached. The central breast junctions were often shown attached to breast straps, which passed between the front legs of the horse to join the girth strap. Other breast junctions (such as those of Primigenius and Lucius from Cologne) simply had pendants suspended from them. One or two straps passed rearwards from the saddle to the haunch junctions, which were in turn linked by a breeching strap, which would have acted like a crupper in that it would have helped prevent the saddle sliding forwards, whereas the breastplate would have stopped it moving backwards. Like shoulder junctions, haunch junctions were frequently adorned with a pendant or pendant strap. *Phalera* junctions are the most commonly depicted on 1st-century tombstones, although the memorials of Cantaber in Mainz and Niger in Bonn, Germany, both depict ring junctions.

Comparison with archaeological finds of junctions bears out these observations. *Phalerae* with three integral loops or two loops and a pendant can be recognized as breast junctions, while those with four loops or three loops and a pendant came from shoulder or haunch junctions. Such fittings were present in hoards of 1st-century horse equipment dredged from the Rhine at Doorwerth (the Netherlands) and Xanten, Germany. The loops on 1st-century *phalerae* were normally concealed behind the face of the disc and were attached to the harness by means of strap fittings known as junction loops. During the early 2nd century CE, however, *phalerae* with external loops started being used, but by the later 2nd and 3rd centuries, it was more common to find openwork *phalerae* where the strap wrapped around the periphery of the fitting, without the use of junction loops. Sadly evidence from the period of the Dominate is largely lacking, although a set of silver and gilt trappings from the Esquiline Treasure (which

need not, of course, have been military) included *phalerae* with lunate pendants.

Most of the metallic components of harness (including *phalerae*, pendants, and saddle horns) could bear ownership inscriptions, either scratched or punched, although this practice was by no means common. The Xanten fittings in the British Museum include a large junction *phalera* inscribed *punctim*: “*Plinio, praef(ecto) eq(uitum)*,” possibly indicative of an association with Pliny the Elder, who commanded an *ala* in the Rhineland in the middle of the 1st century CE.

### Headstall

Tombstones show the headstall or bridle to have comprised a familiar set of components, typified by the tombstones of Bassus and Romanus (Mainz). A junction *phalera* on either side of the head, below the ear, joined the headpiece (running over the top of the head, behind the ears), the brow band (across the forehead, in front of the ears), the throat lash (passing beneath the head), and the cheek piece (which ran down the side of the face of the horse and attached to the bit and the hackamore). Occasionally a frentera (a strap passing down the front of the face of the animal, between the brow band and hackamore) is depicted, as on the so-called Altar of Domitius Ahenobarbus (Rome, Italy) and the tombstones of Cantaber from Mainz and Primigenius from Cologne, among others. A studded frentera is shown on the tombstone of Genialis from Cirencester, Great Britain. If the horse's mane was adorned with a poll knot between the ears, then a *phalera* junction could be used on the forehead and a form of headpiece which looped around the ears was employed instead, as on the equestrian statue of Marcus Aurelius from Rome and, possibly, the Rhineland tombstone of Primigenius.

Bits could be of either the snaffle or curb types, depending upon the nature of the horse and the degree of severity of control required. Bassus's horse has a curb bit and a number of examples have been recovered from the archaeological record, such as one from Newstead, Great Britain. Experimental reconstructions have been tested and shown the type to be effective, if severe. The tombstone of Vonatorix from Bonn appears to show the use of the snaffle bit. The

reins on a 3rd-century tombstone from Rome are depicted as braided.

The *psalion* was a metal band, usually of copper alloy, which passed across the nose and under the chin of the horse. It gave additional control beyond that of the bit with an action comparable to that of a modern hackamore. It is unmistakably shown on many tombstones, including those of Bassus and Insus (from Lancaster, Great Britain). Surviving examples, like pieces from Newstead, Great Britain, and from Haltern, Germany, confirm the depictions on tombstones and show the manner of its use.

Decoration was employed on both functional and non-functional components of the harness. *Phalerae* were normally cast from copper alloy and in the 1st century CE frequently covered with silver foil and further ornamented with niello inlay. Junction *phalerae* could be adorned with cast pendants or leather pendant straps with cast copper-alloy terminals of various kinds. Pendants in the 1st and early 2nd centuries CE came in a wide variety of forms, including lobed types with bird-like suspension necks, trefoil and leaf-shaped pieces, lunate examples, and simpler teardrop forms. Pendants became smaller in the 2nd and 3rd centuries and occur in a much more limited range of types. The main harness straps could also carry purely decorative mounts or *phalerae*, as well as small studs, and all such decorations tended to have a common theme for each set, so that all components matched. The tombstone of Bassus shows further adornment that a rider could use to personalize his mount. This included a broad band worn under the breastplate and shoulder junctions, a decorative beaded strap passed over the horse's mane and terminated with pendants, and a poll knot between the ears. Some writers have interpreted the beading as frit melon beads, frequently found in the archaeological record, but there is no basis for this and they could equally well have been fabric pompons of some kind. In the later period, the tombstone of an unknown 3rd-century *equus singularis* from Rome shows a horse adorned with multiple studded straps.

## Saddle and Girth

Tombstones of the 1st century CE (as well as other sculpture, such as the Arch of Orange and Jupiter Columns in the Rhineland) illustrate the

use of a four-horned saddle without stirrups in a Roman context. Finds of leather saddle covers from sites such as Valkenburg (the Netherlands), Vindolanda and Castleford (Great Britain), along with copper-alloy horn stiffeners like those from Newstead (Great Britain) and Neuss (Germany), have assisted with the reconstruction of the Celto-Roman saddle (so-called as it was evidently in use among Celtic peoples in pre-Roman times, being shown on the Gundestrup cauldron, for instance). The function of the metal stiffeners is unclear, since experimentation has shown that they are superfluous if fitted beneath the saddle cover, and it may be that they provided a measure of armored protection for the exterior of each horn. The saddle required padding and a wooden frame or tree in use in order to be effective. Although these elements have not survived, clear marks of the wooden tree were noted on saddle cover fragments from Carlisle, Great Britain. Reconstructions have shown how the horns of the saddle held the rider in place and allowed a considerable degree of control, rendering stirrups unnecessary. The Celto-Roman saddle also spread eastwards and is found in Parthian and early Sassanid iconography in Mesopotamia.

No girth straps have survived but these too are shown on sculpture and a particular type of large buckle, 70 millimeters in breadth, found in the archaeological record (and made of either copper alloy or, more often, iron), seems to be derived from this. The saddle usually sat on a fringed saddle blanket and was sometimes depicted covered with an over-blanket, similarly trimmed (possibly representing the cavalryman's *sagum*).

The saddle was often furnished with sets of straps hanging from just below each horn. These are shown on tombstones like that of Primigenius and the attachment points for them exist on excavated leather saddle covers. Known as triplet straps, since they usually occurred in threes, they could be further adorned on formal occasions with metal fittings or saddle plates, once again shown on sculpture and found in excavations. The earliest examples (usually Tiberio-Claudian in date) were simple rectangular plates with openwork decoration, some at least being tinned. Examples from the middle and second half of the 1st century CE, like those from Xanten or

Doorwerth, possess more developed forms. These finds show how they were used in sets of alternating square and rectangular plates, decorated with bosses (some of which were cast in one with the plate, others attached by a rivet), and finished with openwork terminal plates. All of these later plates were cast from copper alloy, covered with silver foil, and frequently inlaid with niello.

### Horseshoes

The discovery of at least two series of cavalry horse burials at Krefeld-Gellup, Germany, one from a civil war battle of 69 CE and another from the 3rd century, demonstrated that horses were buried without horseshoes. Since the horses were almost certainly buried where they fell, the impracticality of removing four shoes from every horse makes it unlikely that cavalry horses were regularly shod. Although removable horseshoes, the so-called hipposandals, are known from Roman military sites, the precise manner of their use is unknown.

### Horse Armor

From the 2nd century CE onwards, increasing use was made by the Roman army of specialized armored cavalry. Complete trappers, which would have been used by such cavalry and covered the body of the horse, with an opening for the saddle, have been found at Dura-Europos (Syria). These employed iron or copper-alloy scales, wired to their neighbors horizontally and then each row sewn to a leather backing.

However, a limited amount of horse armor had been in use in the *hippikē gymnasia* somewhat earlier. Chamfrons made of leather are known from Newstead, Vindolanda, and Carlisle. These date to the 1st or early 2nd century CE, were ornamented with copper-alloy studs, and were designed to be used with openwork eye guards. They can be compared with contemporary and later metal examples with elaborate embossed decoration (such as a 1st- to 2nd-century CE one with a lion's head from Neuss, and those of the

3rd century CE from Straubing, Germany, showing Mars, Victoria, or Minerva).

### Pack Harness

While it is assumed that every legion contained at least 600 mules to carry the heavier items of kit for each *contubernium*, surprisingly little is known about military pack harness. It is of course conceivable that much has been recovered but not recognized. The discovery of mule skeletons among the remains of the Battle of Teutoburg Forest (9 CE) at Kalkriese provides some clues, not least since one included a bell (apparently muffled). Similar bells are fairly common finds on Roman military sites and thus it would not be unreasonable to suggest that some of them may derive from pack animals. The possibly apotropaic function of such bells may also indicate that a particular form of crescentic pendant, topped by a ring for attaching junction loops, may also derive from pack harness. These incorporated an asymmetric motif using phallic symbolism and a hand making a *mano fica* gesture, both intended to ward off the evil eye and thus protect the animal and its burden.

*See also* CAVALRY: REPUBLIC; CAVALRY: PRINCIPATE; CAVALRY: LATE EMPIRE; DEPICTIONS, MILITARY; EQUIDS; UNITS: REPUBLIC; UNITS: PRINCIPATE; UNITS IN THE *NOTITIA DIGNITATUM*.

### FURTHER READING

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