History

weapons and military equipment in ancient Rome

As the army came into military contact with new people, various weapons and armor of those cultures were assimilated, including those of the Italians, Etruscans and Greeks, and adapted to suit the needs of the Roman army. Hoplite weapons and armor spread to Rome at the end of the 7th century BCE. From the 4th century BCE in particular, contact with the Celts influenced many aspects of army equipment, such as weapons, vexilla, armor, saddles and other cavalry equipment. The influence of the Celts (including the Gauls) probably had the greatest effect on the Roman army.

Ancient historians state that in the 6th century BCE, the less wealthy property-owning people were divided into five classes who supplied the infantry. Men of the first class were hoplites (heavy infantry) armed with a helmet, cuirass, spear, sword, round shield and greaves; the second class were medium spearmen armed with spear, sword, shield (scutum) and greaves; the third class were lighter spearmen and had spear, sword and shield; the fourth class were skirmishers and had spear and shield; and the fifth class were slingers armed with slings and stones.

Livy says that in the mid-4th century BCE, the leves were armed with spears and javelins and the triarii were armed with spears. The principes and hastati were probably armed with heavy javelins (pila) and swords.

In the time of which Polybius was writing, the velites were armed with swords, javelins and a small circular shield (parma); the hastati and principes were armed with the short Spanish sword (gladius hispaniensis), two long javelins (pila) and an oval shield (scutum); and the triarii were armed with the gladius hispaniensis, the scutum and a thrusting spear (hasta). The cavalry were armed with a circular shield and a long spear.

Marius was responsible for some modifications to the equipment of the army. It is likely that the short spear (hasta) had already been abandoned in favor of the javelin (pilum) by the triarii, and with the absorption of the velites into the other units, there was a move toward all legionaries being equipped in the same way. Marius is credited with a modification to the pilum. About this time, the differences between the hastati, principes and triarii disappeared, and all legionaries were equipped with sword and pilum and wore a mail shirt. In the empire the auxiliary infantry also carried a sword and a short spear, and the differences between auxiliary and legionary arms and armor may have been minimal. From the mid 2nd century the standardized arms and armor began to be abandoned, and archaeological evidence for military equipment from the 3rd century is very sparse.

Manufacture

Originally soldiers provided their own equipment. When Marius persuaded the state to take on the responsibility for arming new recruits (especially as they now all needed to be equipped as heavy infantry), the authorities responded by mass-producing armor. Early in the empire special workshops appear to have been set up in various parts of the empire to produce armor, and some of the surviving mass-produced helmets are very poor in quality. In the early empire workshops (fabricae) in forts produced most of the army's equipment on a fairly large scale. The immunes provided the labor, and much scrap material was recycled. In the eastern Mediterranean equipment does not appear to have been produced by the army.

Cavalry Equipment

Sculptural evidence of saddles appears in the early empire, but they were used by the Gauls by at least the mid-1st century BCE. The saddles had a pommel or horn at each corner, which gave the rider stability, as stirrups were not used until about the 6th century. Bronze horn plates may have protected the pommels. The saddle may have consisted of a wooden frame with padding and leather covers. A saddle cloth was worn under the saddle. Spurs (of bronze or iron) were used throughout the empire.

There were two types of bridle bit in the Roman period, the snaffle and the curb, both of iron. The snaffle bit was of Celtic origin and was used with both draft and riding horses. It consisted of a solid (plain) or jointed bar that went into the horse's mouth. The most common type had a two-link bar. There were free-moving rings at each end to hold the reins and harness. The complex Italian curb bit was designed to produce a rapid response from horses, and so was used for riding horses, especially cavalry. It consisted of a plain or jointed bar that went in the horse's mouth and a straight bar that went
under the chin. Metal hackamores were also used in conjunction with bits and consisted of a bar running across the nose and under the chin. They prevented the horse from opening its mouth.

**Armor**

**LEGIONARIES**

In early Rome (8th–7th centuries BCE) only the wealthiest soldiers wore armor, and then only a helmet and breastplate of beaten bronze. The most common form of body armor was the Greek-style bronze cuirass consisting of a front and back plate held in position by leather straps passed through loops on the back of the plates. They date to the early 7th century BCE and continued in use to at least the end of the 6th century BCE. Several examples of Greek-style greaves are known dating from the 6th century BCE to the 4th or 3rd century BCE, of a type with no shaping for the knees.

In the mid-2nd century BCE the *velites* wore no armor other than a plain helmet sometimes covered with a wolf's skin. At this time the armor of the *principes* and *hastati* consisted of a small square breastplate about 200 mm (8 in) square called a heart guard (*pectorale*). It was a descendant of the square breastplate of the 4th century BCE. They also wore one greave (on the left leg), although by the mid-1st century BCE greaves were no longer worn.

Officers in the late republic and early empire wore a Greek-style uniform consisting of a muscled cuirass under which was a tunic, probably of leather, with *pteryges* (strips of leather or fabric for the protection of thighs and shoulders). This was worn over the military tunic. In the empire a centurion's armor was silvered, and he wore greaves that had otherwise fallen from use. Animal skins were worn by standard-bearers—the *aquilifer* wore lion skins and the others bear skins. Some armor was decorative, worn only on parades.

Around 300 BCE mail armor (*lorica hamata*) was invented by the Celts, but was expensive to make and was restricted to the aristocracy. It was adopted by the legionaries and was made from rings of iron or bronze. In the 2nd century BCE wealthier legionaries wore mail shirts, which were extremely heavy, weighing about 15 kg (33 lb.) The use of mail armor by legionaries declined in the early empire.

From the mid-1st century, a new type of armor for legionaries was devised—articulated plate armor. Known now as *lorica segmentata* (not the Roman name), it weighed about 9 kg (20 lb.) Metal plates were held together by leather straps on the interior and on the exterior by straps and buckles or by hooks. With the shortening of the shield, articulated shoulder guards were developed.

*Lorica squamata* also came to be used mainly in the 1st and 2nd centuries. It consisted of rows of overlapping iron or bronze scales. The scales were 10 to 50 mm (½ to 2 in) long and were held in place by wire ties passed through holes at the top of the scales then sewn to a linen or leather backing.

The evidence for the use of body armor from the 3rd century is less common. *Lorica segmentata* may not have been used, but *lorica hamata* and *lorica squamata* are known, as well as heavily armored cavalry, while underneath the armor padding was worn, possibly made of wool, felt or linen.

**PRAETORIAN GUARD**

The Praetorian Guard wore conventional body armor, but in peacetime they had a dress uniform which was similar to that of the republican era. The cohort on duty at the palace wore togas.

**AUXILIARIES**

Auxiliaries varied from lightly armed troops such as slingers who wore no armor and possibly no shoes, to fully armed troops whose armor was identical to that of legionaries. Archers wore mail shirts that were a longer variety of the cavalry type.

**CAVALRY**

In the mid-2nd century BCE cavalymen wore a cuirass or mail armor. In the early empire, legionary cavalymen wore mail or scale armor. The mail armor consisted of a shirt and a cape weighing about 16 kg (35 lb.) the shirt was split at the hips so that the rider could sit on the horse. At this time horses wore no armor but were decorated with pendant discs (*phalerae*) of tinned bronze of Celtic origin.
In the late 1st century Rome came into contact with the Roxolani, a Sarmatian tribe that used cataphracti: heavily armored cavalry with both men and horses covered in armor. Rome began to employ this type of cavalry, and the first regular unit of cataphracti is known under Hadrian (117–138).

In the 3rd century the use of body armor was restricted to the heavy cavalry (cataphracti), who continued to wear mail and scale shirts. In the 5th century some are portrayed with knee-length hooded scale or mail shirts that must have weighed 25 to 30 kg (55 to 66 lb.) similar in style to those later worn by Norman knights. In the 4th century cataphracti were lightly armored cavalry and the clibanarii were heavy armored cavalry. A clibanarius (oven man, describing what it felt like in the armor) was more heavily armed, covered from head to foot in a combination of plate and scale armor. Clibanarii were first used (unsuccessfully) against Constantine in 312. They were used mainly as parade troops. Similar armor must have covered the body, head and neck of the horses of cataphracti and clibanarii.

**Further Information**


Bishop, M.C. and Coulston, J.C. 1993 *Roman Military Equipment from the Punic Wars to the Fall of Rome*. London


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