During the Classical Age the main offensive weapon of the heavy infantry of Greece was the stabbing spear. The sword was clearly an auxiliary weapon of second resort. Herodotus tells us how the Spartans at Thermopylae fought until their spears broke, then drew their swords, then, when they too failed, their daggers, and finally fought with hands and teeth to the bitter end.

The Romans, however, employed two major weapons from the Samnite Wars period (343-290 BC) on. Unlike the Greeks, who did not throw their spears, Roman heavy infantry first discharged a double volley of javelins (pila). This barrage of missiles was devastating to some, and at the least "softened" up the enemy for what was to come next, the close infantry charge. This type of organized brawl at the "mano a mano" level was clearly not a type of fighting for the faint of heart. It took plenty of what the Romans called virtus (courage).

A Roman soldier, unlike his Greek counterpart who was packed in the battle-line shoulder to shoulder, required more room (c. 3 m) to indulge his style of fighting, close-in sword play. The Roman fighting line was only c. 4 men deep, as opposed to the Greek eight, though the Romans did battle with three separate lines with substantial gaps between the lines.

The Roman short sword was about 60 cm long, sharpened on both sides of the roughly parallel blade, and pointed. It clearly was patterned on the size of the Greek short sword (xiphos, akinakes) which, however, had a leaf-shaped blade. Though the Roman sword from 300-209 BC had a quite functional shape, unfortunately its quality left much to be desired. Then, during the fighting in Spain, Scipio Africanus captured Cartagena in 209 BC from the Carthaginians and the famous Gladius Hispanicus (Hispanic short sword) was born. Captured Spanish smiths were forced to share their superior forging secrets with Roman metalworkers and a fine, high quality sword was for the first time made available to the Roman legions. Within a half century this weapon would carry the Romans to the conquest of the Mediterranean world.

The sword, also called *ferrum* (iron), had at first a blade c. 40-55 cm long. The blade was only roughly parallel, widening somewhat toward the hilt, narrowing a bit in the middle, and flaring microscopically just before convergence into a rather long point. Of course the blade continued up into

the centre of the sword handle, but this tang was concealed by the handle built up around the tang itself. The handguard next to the blade was usually made of hardwood covered in a metal casing. Next came the grip or handle itself. This was usually octagonal, and indented in four shallow scopes for a comfortable grip by the fingers. The handle was usually made of bone, though an officer might have ivory. Likewise, instead of bronze plating, the handguard and balance knob, the pommel, might be covered in

silver plate. The pommel at the end of the handle was there to bring the center of balance back toward the hilt. A small fixture at the end of the pommel was used to secure the handle.

This weapon, fixed in a wood, leather and metal scabbard, hung on the right side of the soldier and required an awkward draw with the right hand to clear it for action. In 105 BC gladiatorial sword drills were first introduced to the Roman army, which involved whacking away at padded posts all day with double-weight practice swords. I have just received a replica Roman sword as a present and, believe me, the combat sword is incredibly ponderous. The practice swords must have been torturous.

When Roman soldiers fought they used a combination of shield lunges (their wooden shields had metal rims) and vicious straight thrusts with the point of the sword to dispatch their foes. The centurions discouraged the wider, slashing blows which would cut and wound rather than kill. Besides, the Celtic barbarian who would grandstand by swinging his much longer, poorly made blade around his head, using it as a scythe or hammer, would more often than not have his magnificent gesturing spoiled by 5 cm of gladius rammed under his armpit.