



The Black Smith

400 - 1800

Copyright Peter H. Kunz. CH-8200 Schaffhausen

Ca. 400 before Christ: Greek Black Smith



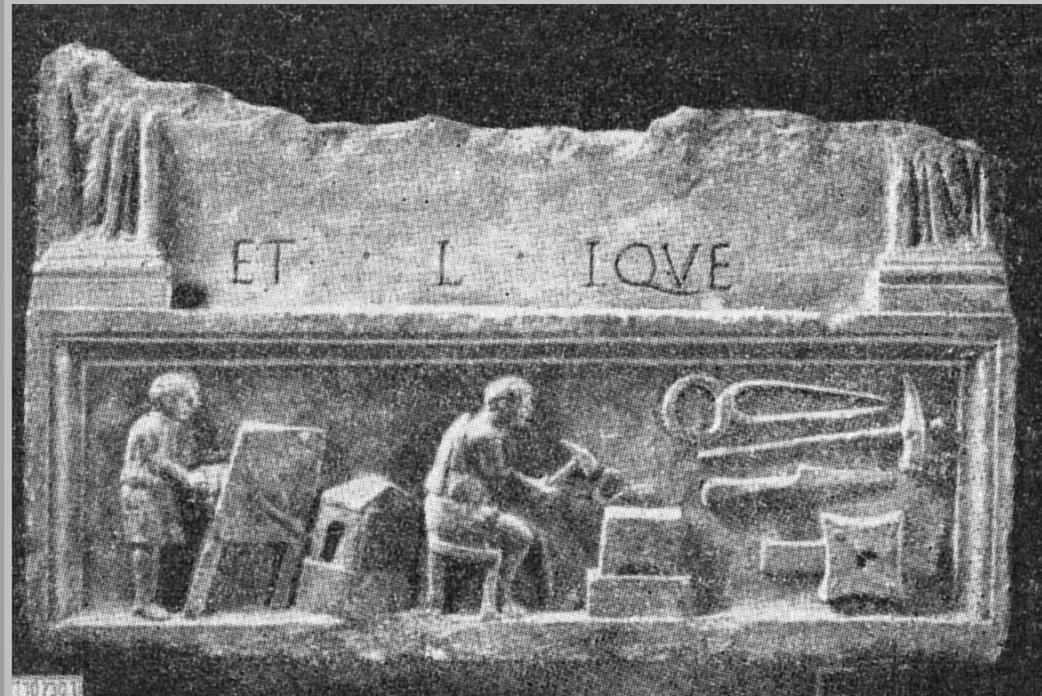
Decoration on Greek Vase, ca. 400 before Christ

The master smith on the right side gives instructions to his black smith.

The black smith is forging a piece of iron held by his assistant with a black smith's tongs.

A variety of black smith's tools are hanging on the wall.

Ca. 150: Roman Black Smith



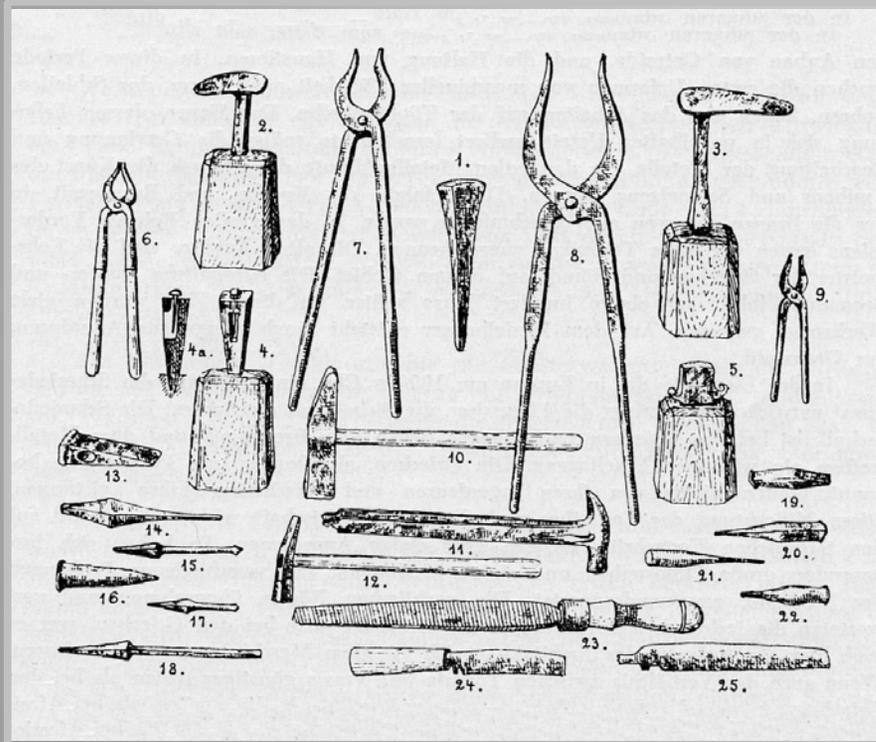
Roman bold stone relief, ca. 150

A black smith is forging a iron piece on a simple cubic anvil.

Standing behind a shield an assistant operates a bellow of an annealing furnace.

A couple of different black smith tools are shown on the right.

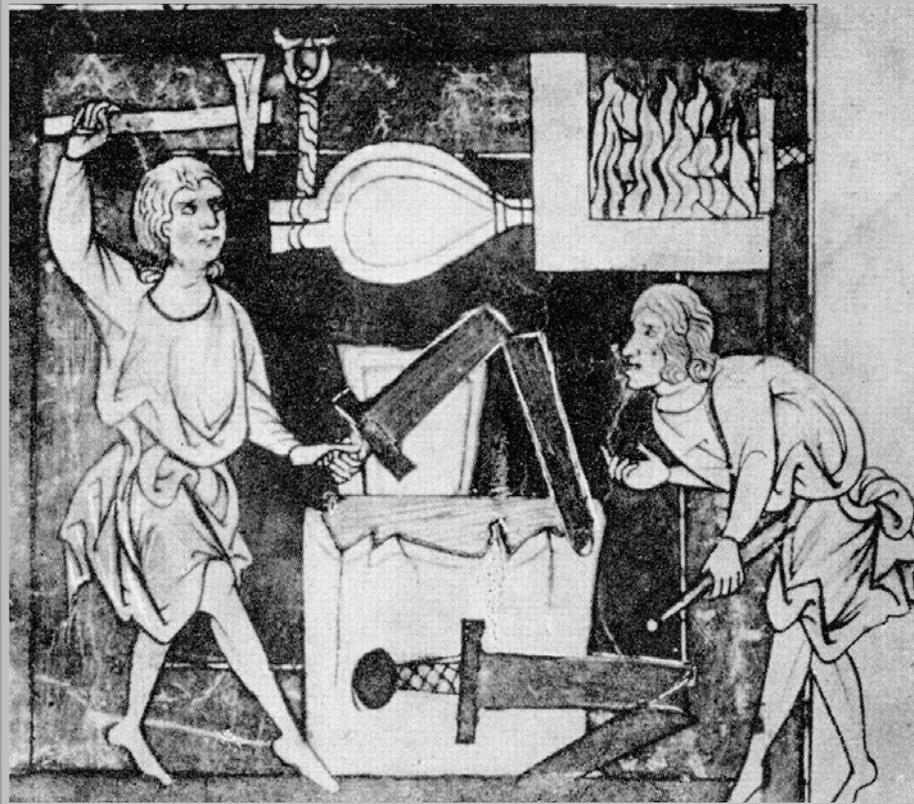
Ca. 200: Roman Black Smith Tools



The black smith tools shown on this drawing have been excavated in 1897 in the Roman Castel Saalburg near Homburg, Germany.

L. Jakobi, Das Römerkastell Saalburg bei Homburg, 1897

Ca. 1230: Sword Smith



Unknown artist, ca. 1230

Behind an annealing furnace with a bellow is shown.

It is not clear what the black smith is doing with the broken sword.

Ca. 1480: Armor Black Smith



Woodcut, unknown artist, ca. 1480

Two black smiths are forging a part of an armor.

On the right side a couple of components for an armor are hanging on the wall.

Ca. 1518: Blacksmith's Workshop of Emperor Maximilian I.



Copper engraving, unknown artist, ca. 1618

Contrary to the normal black smith, the armor black smith uses sheet metal to make the components of an armor.

For his work he uses tools and anvils of a special design.

On the floor a variety of armor punches are shown.

The armor smith in the center forges a rounding into a sheet metal.

On right side an other armor smith adds a number of ribs into a chest protector.

Ca. 1570: Horseshoer and Nailer



Jost Amman, *Stände und Handwerker*, 1558

Alternately two Horseshoer are forging a horseshoe.

A number of finished horseshoes are hanging on a rod on the left side.

Ca. 1570: Lock Smith

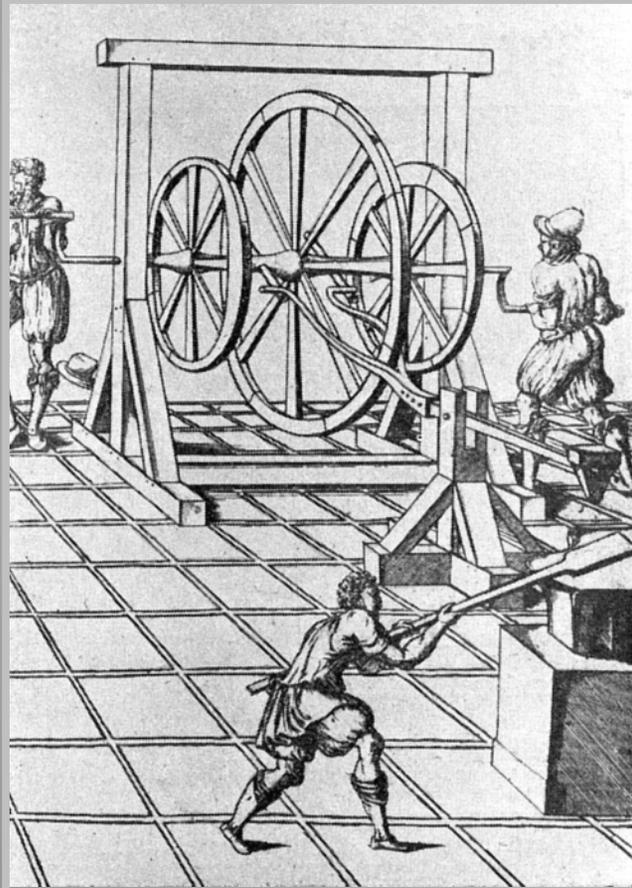


A forge with a lever actuated bellows is shown in the rear.

In the foreground a lock smith with his assistant is forging a component of a lock.

Jost Amman, *Stände und Handwerker*, 1558

Ca. 1570: Hand operated Forge Hammer

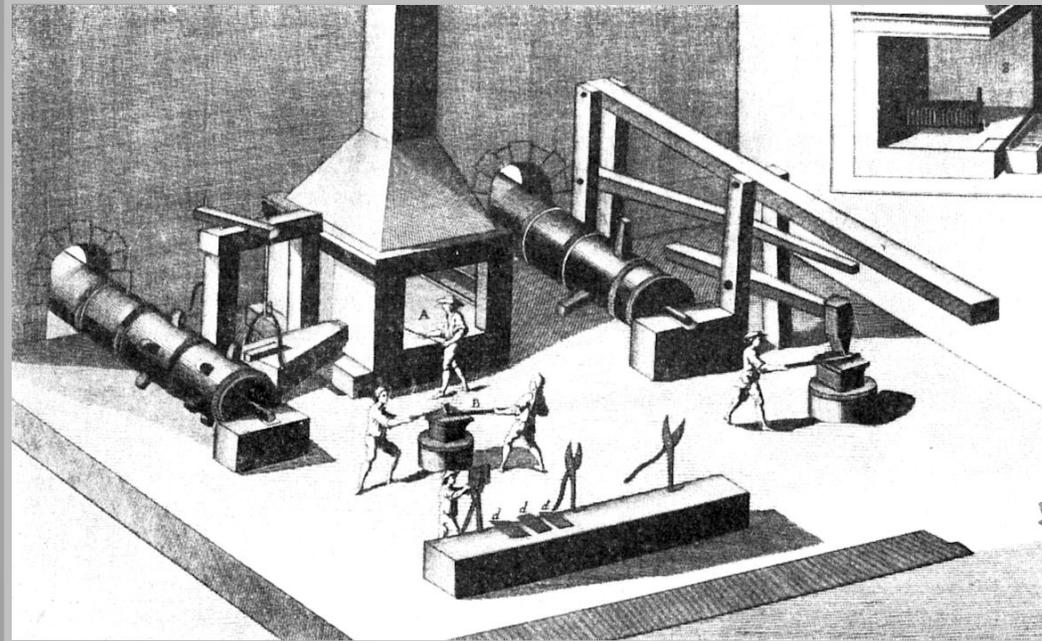


Turning a crank, two assistant are operating a forge hammer. The large spoked wheels serve as flywheels.

The forge hammer is being operated by the cams attached to the axis of rotation.

The black smith holds a forging onto the anvil underneath the forge hammer.

Ca. 1760: Hammermill



D. Diderot & J. L. D'Alembert, *Encyclopédie*, Paris, 1751

The cam mechanism for lifting the hammer is illustrated in the forging. The great shaft bound in iron bands, is the axle-tree of a water wheel outside the smithy. When it is engaged, one of the arms catches the shaft of the hammer under the band and bumps it upward into position for another stroke.

Ca. 1770: Metal Worker's Smithy



In the top of this picture a large smith workshop is shown with its worker.

All the different tools of a metal and a blacksmith's shop are drawn underneath.

G.Schreber, Schauplatz der Künste und Handwerke, Leipzig, 1769

End