

Metal Art

Metal is a broad category, including tin, copper, bronze, iron, steel, brass, pewter, aluminum, silver, and gold. The use of metal has been so important to the development of civilization that periods of pre-history are named the Bronze Age and the Iron Age. It has been used – and is still used – to make everything from tools to weapons, from horseshoes to trucks. It is also used by artists and craftsmen to make jewelry, vessels, candle holders, and sculptures.

Some metals – like copper and gold - occur naturally in a state that can be shaped for use. Other metals are *alloys* made by melting two different metals together.

Bronze is an alloy made up of copper and tin. Iron is only found in a pure state in nature in meteorites. Most iron is found in iron ores, which are rocks or minerals containing iron. To extract the iron, the iron ore must be heated to extremely high temperatures. Steel is basically iron with the addition of carbon.

Just as there are many different kinds of metal, there are many different ways that metal is shaped when it is manufactured. It can be stretched thin into wire, rolled out into sheets, or cast into rods or ingots. Artists who work in metal also use many different techniques. Blacksmiths heat steel rods in a forge, then hammer, twist, and bend the metal while it is hot enough to be *malleable*. Silversmiths might cut shapes from fine silver sheet metal, bend and solder silver wire, or melt silver to cast it in a mold.



This stainless steel sculpture was made by Dave Caudill. Dave creates all his sculptures using a *MIG welder* that produces a 2900 degree welding spark. The steel actually melts together. Then he polishes the steel so that it will reflect both sunlight and moonlight.