

## How to Talk Like a Metalsmith

**Annealing:** The process of rendering metal more malleable by heating it to a specific temperature

**Bail Making Pliers:** Pliers with mandrels at the ends that allow the wire artist to bend the wire to same size each time

**Barrette File:** A file with teeth on one flat side

**Bench Pin:** A wooden extension of a jeweler's bench against which filing, sawing and forming are done

**Bezel:** A wall of metal that surrounds a gemstone and secures it in place

**Brass:** An alloy of copper and zinc. Brass is yellow in color, and though harder than either of its constituents, it is appropriately malleable for jewelry making

**Center Finder (also called Center Square):** A tool used to help find the exact center of an object

**Chamfer:** A beveled edge

**Chasing:** A technique in which steel tools (punches) are used to decorate and/or texture a surface

**Chasing Hammer:** A hammer with a large face for flattening and a ball-peen face for creating a "hammered" look

**Copper:** A popular and versatile metal. Copper is known for its malleability, low cost and wide range of patinas.

**Cross Lock Tweezers:** Tweezers that lock to hold work securely; Great for picking up smaller objects

**Cross Peen Hammer:** Any wedge-shaped hammer face. These are used to push the metal in controlled directions when forging, riveting, raising, and setting stones.

**Findings:** This broad term refers to any element that contributes to the wearability of a piece of jewelry, such as pins, earwires, and chains.

**Flex Shaft:** A versatile studio tool consisting of a precision high-speed motor, a foot rheostat and a 3-foot extension that allows manipulation of the handpiece. It is used for drilling, grinding, sanding, carving, and polishing.

**Flux:** A chemical employed during soldering to protect metal against the formation of oxides.

**Forging:** The process of shaping metal primarily through the use of a hammer. Most nonferrous metals are forged at room temperature, while steel and iron are worked at red heat.

**Honeycomb Board:** Fire-resistant board used for soldering and annealing metals

**Jewelers Saw:** A jeweler's saw, also known as a coping saw in woodworking, is a saw with a very narrow blade stretched across a U-shaped frame

**Liver of Sulphur:** Potassium sulfide, a bad-smelling yellow compound mixed with water to make a solution that will darken copper and sterling silver.

**Mallet:** A hammer-shaped tool of a material that will not seriously mark metal. Mallets are made of plastic, leather, wood, paper and horn.

**Mandrel:** A rigid tool, usually steel, against which metal is pressed or hammered to change its shape. Mandrels are usually named after their common use, as in bezel mandrel, ring mandrel and bracelet mandrel.

**Mill Bastard File:** Mill Bastard files are rectangle-shaped files, single cut on sides and edges. Features file teeth grooved in one diagonal direction.

**Needle Files:** A large family of narrow files ranging from about 3" to 7" long.

**Nickel Silver:** A tough, corrosion resistant alloy of copper, zinc and nickel, formerly called "German silver."

**Niobium Wire:** A soft, grey metal often used in **jewelry** making because of its hypoallergenic properties, this metal is a safe choice for anyone with metal allergies. Niobium is highly malleable, lightweight, highly resistant to corrosion, and hard.

**Patina:** A colored coating on metal. Patinas can happen naturally (as with green copper roofing) or through careful application of chemicals.

**Pickle:** Pickle is a liquid compound used to remove oxidation and flux from newly soldered jewelry.

**Piercing:** Work done with a jeweler's saw, particularly when cutting within a shape.

**Planishing:** The process of smoothing metal with polished hammers.

**Punches:** Hardened steel tools used to decorate, texture and form metal. Punches are roughly the size of short pencils, and can be purchased or made in the studio.

**Rivets:** Mechanical connectors that join elements without the use of heat.

**Roll Printing:** A technique in which a rolling mill is used to imprint texture and patterns under great pressure.

**Rolling Mill:** A piece of equipment consisting of two parallel, hardened steel cylinders mounted in a sturdy frame.

**Silver:** An element known for its purity, malleability, and bright shine. Because pure silver is relatively soft, it is usually alloyed with a small amount of copper to make sterling silver.

**Solder:** Pronounced *sod-er*. An alloy of specific melting point and surface tension used to join metals.

**Stakes:** Rigid forms typically of steel, against which metal is hammered to create volumetric shapes in a process called raising.

**Stamping:** The technique of impressing shapes and textures through hardened tools called punches.

**Steel:** An alloy of iron and carbon.

**Tabs:** A cold connection in which fingers or strips of metal are bent over an element to secure it in place.

**Work Hardening:** The characteristic of metals that causes them to toughen through force such as hammering, stretching, drawing, bending, rolling and compressing.

**Wubber Pliers:** A brand of pliers that Maia likes. "Funny name, serious tools!"