Patinas for copper

By Mary Hettmansperger

Patinas refer to the fading, darkening or aging of the metal's surface, regardless whether it is a natural occurrence or intentionally produced. Chemicals can be added to the surface of the metal to darken, age, rust or color the object. Many patinas sit on the surface and will change over time or flake off. Other patinas, such as the ones created by the gel flux are permanent, and retain the coloration produced during the heating process. Gel flux can be re-applied after the shapes and textures are created to enhance the coloration on the surface.

Flux can be applied with a paint brush and when heated will produce reds, oranges, and vibrant copper colors, depending on how the piece is held in the flame and for how long. The flux can also be used with rubber stamps – taking on the patterns on the stamps. Less is better when using the stamps as you want to just have enough to lightly imprint the design – too much and you will not be able to get a clear image. The color achieved from flux is permanent and is quite nice. Make sure you have good ventilation and eye protection when using the torch and patinas and read all manufacturers warnings.

The common green patina forms on pure copper as well as alloys that contain copper, such as bronze and brass. It is a result of the exposure to weather, elements, water and air born chemicals. Creating this green patina can be easily achieved by accelerating the process when a chemical patina containing chlorides is applied to the surface of the metal. When applying chemical patinas to achieve green coloration, make sure you have annealed the copper added the texture and have not applied any gel flux. Keep in mind that it takes years for exposed copper to age and break down enough to begin the natural patina process. When the metal has been annealed, worked hard, textured, and reheated prior to adding patinas to its surface, the green reaction is achieved faster and with more success. This process roughs up the surface and creates more "tooth" to speed up the reaction. New, smooth, un-worked or unheated copper will not "hold" the chemical patina as well as pieces that have been worked.

Heating copper or silver, lightly will create a light surface of fire scale. (Do not over heat) This is a great way to achieve an aged look without using liver of sulfur. I use this patina to create depth and definition on the surface of textured sterling silver or on copper. Once the coloration is achieved, dry the copper. Steel wool is then applied over the copper to buff off some of the fire scale on the surface. Using a finer steel wool will create a higher shine. #2 steel wool will create markings and leave the actual markings of the steel wool finish.

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