Set the dry piece on a firebrick and build a surrounding wall of firebricks to the height of the object, leaving half-inch gaps between the bricks, and a four-inch space around the piece. Fill the cavity with charcoal up to the height of the piece. Light the charcoal and monitor the progress by looking through the spaces in the kiln wall. When the metal has

When the miso-yaki coating is dry, build a kiln around the work with fire bricks.

Surround the piece with charcoal...

着色

Patina Samples

Testing the Patina Solutions

In an effort to insure that nothing was lost or confused in translation, the formulas given here were tested on a wide range of alloys. These pages show some of our results.

It is important to understand that many variables will affect patina results. Our tests were made on smooth, rolled metal. Textures will change the color, and cast metal has a different structure that can also influence color. These samples include no solder, and because solder is a different alloy, it will react to the solutions differently. Changes in temperature, length of exposure, climate, and strength of the chemicals will all influence colors.

Experiments like this are the best way to develop an understanding of the solutions that will prepare you to apply the patinas on your finished work. We recommend making tests on small pieces like this before you mix up large quantities of patina solutions or devote a lot of time coloring a large piece.

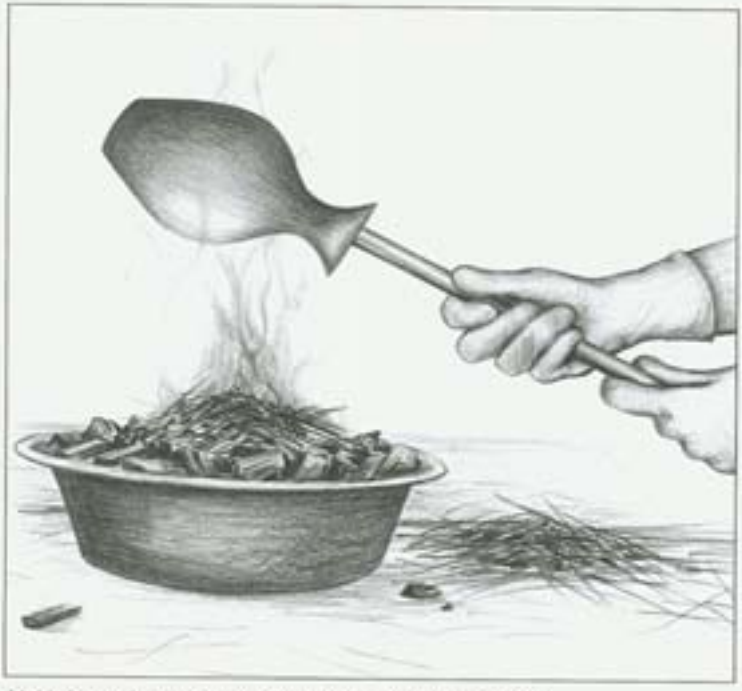
色 彩

Patina Recipe Summary

Sakusan-do		*small batch*
3 grams	ammonium chloride, NH_4Cl	pinch
30 grams	copper acetate, $Cu(C_2H_3O_2)_2$	2 tsp.
1 liter	water	1 cup

Obaguro		*small batch*
1 liter	sake, beer or vinegar	2 cups
200 grams	steel scraps or nails (½ lb.)	¼ lb.

Ryuka		*small batch*
100 grams	sulfur	3 tbsp.
35 grams	calcium oxide, CaO (lime)	1 Tsp.
0.1 grams	casein (a tiny amount)	pinch
0.15 grams	potassium sulfate, K_2SO_4	pinch
½ liter	water	1 cup



Hold the work over a smoky flame to develop a layer of soot.

3. Hold the metal object over the smoke, close enough that you are depositing a thin layer of tar on the surface. While applying the tar, keep the flame low to produce as much smoke as possible. Usually the work is held on a stick; when the shape of the piece does not allow this, place the piece in a wire net and set on top of the straw bundle.