

Note: The following Glossary of enameling techniques is from the book:

The Art of Fine Enameling

By Karen L. Cohen

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To read more about my book, go to page:
http://www.kcenamels.com/enamel_book2

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Through the years, a variety of vitreous enameling approaches have been developed. Some involve how the metal is prepared, and some involve how the enamel is applied. The following defines the most prevalent, but by no means all, techniques:

- **Basse Taille:** (bäs tä' y^a) French for "low cut." A technique in which a pattern is created in the metal backing before enameling. See Photo 4 and the project "Basse Taille."



4 Garland by Tanya Midgal—Basse Taille and Champlevé

Photo credit: Anya Migdal



5 Diving and Drowning Cameïeu with silver foil by Mary Chuduk

Photo credit: Jeff Scovill



6 Bob Cata Cloisonné by Merry-Lee Rae

- **Camaïeu:** (kâm ay' euh) Also called "en camaïeu," a term dating from the mid-18th century describing a Grisaille-like technique that uses a buildup of white enamel to create highlights and light areas. However, instead of using a black background, as in Grisaille, transparent enamel is laid in first, beneath the whites. The colors of the background are thus part of the shadows of the image and distinguish it from Grisaille. This technique is frequently used on snuffboxes, watches, and medallions. See Photo 5 and the project "Impasto, Grisaille, and Camaïeu."
- **Champlevé:** (shän lä vä') French for "raised field" or "raised plain." A technique in which enamel is inlaid into depressions in the metal, leaving metal exposed. The depressions can be made in a variety of ways. First done in the 3rd century AD by the Celts decorating their shields, this technique has been one of the favorite forms of enameling. See Photo 4 for a sample of combined Champlevé and Basse Taille, along with the project "Champlevé."
- **Cloisonné:** (kloi' zə nă' or klwa zô nă') French for "cloison" or "cell." A technique in which metal wires are bent to form a design; enamel is then inlaid into the resulting "cloisons." Although this can be done in copper, contemporary Cloisonné is most frequently done in silver or gold. The Byzantine Empire, 6th century AD, was the setting for gold Cloisonné pieces of a religious nature. In the same time frame, the Japanese were producing scenes of nature. In China, Cloisonné has been used since the 13th century AD. See Photo 6 and the project "Cloisonné."
- **En Résille Sur Verre:** A very rare form of enameling on glass. This is done by gouging out sections in the glass and lining them with gold foil over which you enamel. So, technically, you enamel on gold, but it looks like it's on the glass. This is very hard



7 En Résille Sur Verre by Rick McMullen



9 Use of Ginbari foil in nontraditional design by Krisztina Nagy Vagenas

Photo credit Charley Freiberg



10 Grisaille by Ora Kuller

Photo credit Giora Kuller in private collection of Adam Bakernroth



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11 Engine turner and Guilloché artist William Brinker uses a straight-line engine design; relief-carved eyepiece by Amayak Stepanyan

At left: *Catch the Eye* by Kathleen Wilcox—2 copper pieces stacked with firescale on both, and the lower piece shows overfired clear

to do, and one would experience many failures in creating these pieces. See Photo 7.

- **Firescale Enameling:** The use of the oxide buildup on a metal. Some pieces are completely done through firescale manipulation, and some pieces are enhanced by the additive use of firescale (could be from a flaked-off piece that is reattached). See Photo 8 and more information on firescale on page 41 and the project “Sgraffito—Traditional.”
- **Ginbari Foil Embossing:** (geen bär’e) A technique, developed in Japan, using a foil design made with an embossing plate. This is an excellent technique for reproducing a design, as the embossing plate is reusable. There are two forms of Ginbari—high relief and low relief. The high relief somewhat has the look of Cloisonné; however, the “lines” are not wire, but rather embossed foil. The low relief is frequently used as a background for either Cloisonné or Limoges, as was done on many

Ginbari antique buttons. See Photo 9 and the project “Ginbari Foil Embossing.”

- **Grisaille:** (gri zāl’) French for “grayness.” A form of “painting” with enamel in a monochrome, using a black background, with a buildup of white overlays. The grays of the shadows distinguish this technique from Impasto and Camaïeu. See Photo 10 and the project “Impasto, Grisaille, and Camaïeu.”
- **Guilloché:** (gee yoh shay) French for “engine turning.” Engine turning is the mechanical cutting of lines on metal to create a design. Because the pattern is engraved, the reflection of light through the overcoating of transparent enamel is enhanced, and its brilliance can be seen as the piece is moved from side to side. For more information, see the section on engine turning machines on page 121, as well as Photo 11.
- **Impasto:** (im pas’tō or im pä’stō) A form of “painting” with enamel in a monochrome, using a bare copper



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A Rose by Any Other Name, by Marilyn Seitlin Tendrich

Photo credit Lisa Tendrich Frank



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Archangel Gabriel in Initial D by Karin Pohl

Photo credit George Post



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Water Earrings, pierced Plique-à-jour by Sarah Loch-Test



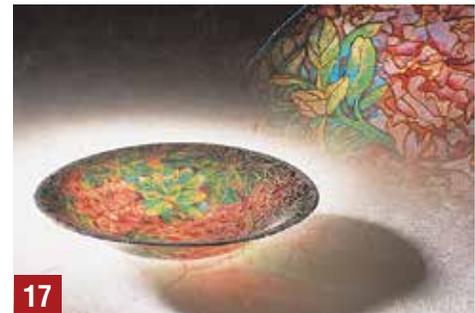
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In private collection of Karen L. Cohen; photo credit Ralph Gabriner



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Artist Mamie Ito used CAD to create the sterling frame



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Artist Fay Rooke—Shōtai-Jippō Plique-à-jour

At left: Includes all three classical enamel techniques—Plique-à-jour for the cup, Cloisonné for the base, and Champlevé for the bottom of the base, by Valeri Timofeev

background, with a buildup of white overlays, similar to Grisaille. Multiple layers can be worked to build up a relief design, which can be sculptural in effect. Green, or sometimes red, shadows created are the result of the cuprous oxides—or copper firescale—reacting with the various thicknesses of the enamel. Finally, the piece may be covered with a transparent color. See Photo 12 and the project “Impasto, Grisaille, and Camaïeu.”

- **Limoges:** (lē mōzh') A technique of “painting” with enamel in which different enamel colors are put next to each other without the separation of wire or surface metal. See Photo 13 and the project “Painting with Enamels—Traditional Limoges.”
- **Plique-à-jour:** (plēk'ä zhōör' or plē ka zhōör') French for “membrane through which passes the light of day.” A technique that resembles miniature stained glass and is reminiscent of its art nouveau and Old World influences. Plique-à-jour pieces, because of the open back, are more fragile than other types of enamels. There are two basic methods of enameling

for Plique-à-jour: surface-tension enameled and wet-packed enameled with metal etching.

The surface-tension enameled method has two classical styles and some modern styles of metal construction. The first classical style is pierced. See Photo 14.

The second classical style is filigree (like a skeletal wire frame) where wires are bent and soldered together. See Photo 15.

The filigree style was first used in the 11th century and accepted all over the world. One modern method is to use CAD (computer-aided design) to design the framework and then have the piece cast before enameling. See Photo 16.

Another modern method is to use metal clay and create a design with openings to enamel. See Photo 570 on page 241.

The wet-pack enameled with metal etching method is called Shōtai-Jippō, and sometimes “crystallized Cloisonné” in Japan. See Photo 17 and the project “Plique-à-jour” for more information.

- **Raku:** (rä kōō) A technique in which hot enamel that includes oxides is put through a reduction firing, resulting in iridescent colors. See Photos 18 and 19, and see LTT “Raku Firing” on page 109 for more information.
- **Separation Enamel:** This has a chemical reaction to the previously fused layers of enamel to change the viscosity of the applied area to allow the underneath colors to show through. See Photo 20 and the project “Separation Enamel.”
- **Sgraffito:** (skrā fē’ tō) A technique in which lines are drawn through a layer of unfired enamel, exposing the fused enamel (or bare metal) underneath. This can be done into liquid or grain form enamel. See Photo 21, the two Sgraffito projects on pages 252 and 260, and LTT “Spray & Sgraffito with Multiple Layers of Liquid Enamel” on page 259.
- **Silkscreen:** A technique in which designs on material mesh, such as silk, polyester, or nylon, are transferred onto an enameled base; this is similar to silkscreening on cloth. See Photo 22 for combined

Sgraffito and Silkscreen in one piece and section “Silkscreen” on page 93 for more information.

- **Stenciling:** A technique in which a design is cut into a material, such as paper or Mylar, through which the enamel is applied to, or removed from, the metal, thus using the stencil as a positive or negative space. See Photo 23 and the project “Stenciling.”
- **Torch Fired:** A method of enameling in which a torch is used for the heat source, instead of a kiln. See Photo 24 and the project “Torch Fired Enameling.”

In addition, enameled pieces can be enhanced by decorative additives. See the chapter “Supplements and Add-Ons” for more information. In reality, though, any of these techniques, decorative additives, and methods can be combined to make a piece that is truly unique. Simply let your imagination soar.



18 Artist Jean Tudor—without silver nitrate



20 Artist Tom Ellis

Photo credit Ralph Gabriner



22 Which Way to Go by Ute Conrad

Photo credit Ernst Conrad



19 *Mysteries of the Sea* by Karen L. Cohen—with silver nitrate on the seaweed



21 *Folding into Nature* by Alisa Looney, who uses liquid enamels, and sgraffitoes through 6 layers of color

Photo credit Patrick F. Smith



23 *Warrior in Red* by Harold Balazs



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Santa Cruz “Mary” by Ken Bova, who uses black and white liquid enamel with Sgraffito for this foldformed torch fired bowl