

Methods of Decoration

I

1. Incising
2. Carving

Incising is a process suited to soft clay. The smoothest edges can be obtained when the modeling tool is pressed into the damp clay. When the tool is drawn along the surface a burr is raised along the cut. Each tool, whether it be a makeshift or manufactured one, imparts a different character to the decorative pattern, is thoroughly individual in its treatment.

Incising is best suited to a design which is adapted to line drawing. A light wire rather than a pencil is advisable for the application of the design. A tool made of a wheel running on the end of a stick is very good for straight lines and also makes graceful curves. Lines are of a more even width and curves are truer when a cardboard tag is used. This use of a piece of cardboard is one of many suggestions for the use of materials with which to imprint a design. Woodblock tools give an excellent effect.

In carving the contrast of light and dark is developed. This contrast is obtained through placing a low side next to a high one. It is easier to carve on dry clay. It is also preferable to use a tool having a square sharp edge. Various sorts of cloth or a nearly dry sponge will smooth down the roughness on the surface.

Much of the primitive pottery employed crosshatched backgrounds in order to gain the desired balance of light and dark. This means of obtaining well distributed values can be used equally well in either carving or incising.

For these methods a transparent or slightly opaque glaze with a small amount of coloring oxide is very effective, as the color settles in the grooves and intensifies their interest.

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II

3. Slip painting
4. Sgraffito

Primitive and other early pottery illustrate slip painting as an effective mode of decoration. Some of the finest work in slip painting was done on stoneware. Although the lines are quite free, it is not an easy process to use because of the spontaneity needed for successful patterning.

The slip should be mixed stiffly, a little less thick than whipped cream, and a brushful used for each stroke. Strokes should never be retouched. When it is desired that the background color should show through a long haired brush is preferable. For completely opaque strokes a short haired one is better. Early methods used a slip pipe or pipette in applying the slip to the ware. A pastry tube does it in the same manner. These tools obtain a finer line than does a brush, but brushwork has a strongly individual charm. One has to bear in mind the heavy nature of the medium and suit the type of brush stroke to this without attempting the fine lines possible to watercolor or underglaze color.

A coating of about $1/16$ " of one clay over another color allows an interesting technique. Pattern is made by carving through the upper clay surface. The burr or rough edges of the decoration can be rubbed down by a slight pressure of the thumb or by cheesecloth when the piece is dry. This method, called sgraffito, is comparatively simple. With one color over another, using several coats, each a color and each thin, a polychrome pattern may be developed.

The combination of slip painting with sgraffito can become very rich in color and pattern.

Inlaying is closely allied to sgraffito in its handling. In this treatment thin strips of colored clays are pressed into the surface of the ware. They should be applied in the condition where welding is successful, and then the surface should be cleaned gently, leaving the pattern clear.

In any treatment involving several colors in one process one may obtain with clay a very fine but very soft effect of color. Clay colors are quiet in range but not necessarily neutral.

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III

5. Sprig molding
6. Crayon
7. Flattened coils
8. Pricked surface

5. Sprigs may be made by molds or modeled by hand and pressed on to the piece. There must be no difference between the two kinds of clay as to shrinkage, because if this is the case the sprig often comes off or cracks away from the piece.

In applying the sprig, slip made from the same clay as the body is painted on the sprig. This sameness of sprig and background is necessary to keep the body from being stained with color from the sprig. As in building, the body should be of the right consistency for welding.

6. Crayon may be commercial or handmade. They consist of an underglaze color with a binder of clay and are burned finally at the temperature of the body.

7. Flattened coil treatment is done by laying in a pattern of coils of clay on the surface of the piece to be decorated. When the pattern is all indicated, a piece of paper is laid over it and flattened over the coils. The pressure welds the coils to the piece and gives them an interesting flat surface. Colored clays in combination make for as much interest as polychrome slip.

8. Pricking a surface with broomstraws tied together, or with a group of small wires, makes a surface which, to be effective, should be done with feeling. The clay should be leatherhard. Underglaze colors can be rubbed in when the clay is dry and the surface can then be cleaned with a scraper, leaving the color in the little indentations. The effect when glazed is very delicate.

Methods of Decoration

IV

9. Underglaze Painting
10. Overglaze Painting
11. Glaze painting over glaze

In applying decoration such as underglaze painting the painting is done with ceramic stains on biscuited ware. The glaze is applied after firing. In so-called maiolica (overglaze painting), the same stains are painted on the glazed (but not fired) surface of the ware. For the latter 25% colorless glaze is mixed with the underglaze stain so that when the piece is glazed the color will hold and not rub off with handling. The glaze for overglaze painting should be damp, because when the glaze is dry the moisture is absorbed to such an extent that the glaze piles up in a rough surface.

Metallic oxides can be used in both processes if their peculiarities are considered, but the prepared are more uniformly fine and more successful results can be obtained. Mistakes can be quite easily corrected by scraping the surface of the glaze or clay.

Underglaze colors may also be used in a form of sponge printing in which stamps made of sponge, or pads cut in various shapes, are used to print the color on the piece.

Glazes may be painted over other glazes in the free brush method if the fact is taken into account that a too fluid glaze, either coating the ware or used for the painting, will cause the pattern to run. A viscous glaze on the body will be more successful in gaining a clear pattern.

CaO	.186)	Al ₂ O ₃	1.000(SiO ₂	5.14
K ₂ O	.172)	Fe ₂ O ₃	.295(H ₂ O	2.68

The next thing is to find the formula weight:

.186	x	56	=	10.5
.172	x	94	=	16.2
1.000	x	102	=	102.0
.295	x	160	=	47.2
5.140	x	60	=	308.4
2.680	x	18	=	<u>48.2</u>

532.5

The calculation may now proceed:

Red Lead	36	divided by	288	=	.158
Red Clay	26	"	532	=	.049
Feldspar	20	"	556	=	.036
Flint	18	"	60	=	.300

Assembling the oxides is rather more complicated than before because of the red clay:

PbO					.158
CaO	.188	x	.049	=	.009
K ₂ O	.172	x	.049	=	.008)
	.036	in feldspar			.036)
Al ₂ O ₃	1.000	x	.049	=	.049
	.036			=	.036
Fe ₂ O ₃	.295	x	.049	=	.014
SiO ₂	5.140	x	.049	=	.251
	.036	x	6.000	=	.216
	.300			=	.300

PbO	.158)	Al ₂ O ₃	.085 (
CaO	.009)			SiO ₂ .767
K ₂ O	.044)	Fe ₂ O ₃	.014 (

.211

Divide through by the RO value

PbO	.750)	Al ₂ O ₃	.404(
CaO	.043)			SiO ₂ 3.65
K ₂ O	.207)	Fe ₂ O ₃	.066(

The silica proves to be rather high but it maybe that the composition assumed for the clay is more silicious than the actual. The water in the clay only affects the weight. It does not appear in the formula of the glaze.

Process	For individual	For industrial	Industrial method	Glaze
1. Incising	*	*	Incising of hump	Transparent with little color
2. Carving	*	*	Carving of hump	Thin glaze
3. Slip painting	*	*	Painting on mold	Thin glaze, transparent or slightly opaque
4. Sgraffito	*	*	Incise hump, fill incision on piece with As in #3 other clay, clean surface	
5. Sprig molding	*	*	Press decorative unit in separate mold and apply to plastic ware	Any type of glaze
6. Crayon	*	*	Individually drawn or, for duplication, lithographed	Transparent
7. Flattened coils	*	No		Thin glaze, transparent or slightly opaque
8. Pricked surface	*	No		Transparent
9. Underglaze painting	*	*	Etched plate	Thin glaze, transparent or slightly opaque
10. Overglaze painting	*	*	Decalcomania	Any opaque glaze
11. Glaze over glaze	*	No		Opaque, rich glaze