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Exploring Surface Relief

Whenever you manipulate a piece of clay you are exploring surface design. Anything done to the surface with fingers, tools, clay, slip, engobe, patina, glaze, firing method, or post-firing effect is surface-design. This semester, our objective is to investigate a broad range of surface-design methods and effects in an organized fashion. By the end of the semester your vocabulary of surface options will have expanded greatly, enhancing your ability to effectively orchestrate single or combined surface effects to achieve specific outcome in the finished piece.

Successful surface-design in ceramics inevitably involves addressing cumulative surface effects from wet clay through glaze firing and even post-firing mixed-media effects. Even the simplest glazed pot involves many stages of surface development affecting the final appearance and feel of the work. In manipulating the wet clay we inevitably create particular surface effects, even if only a smooth surface. We modify or further embellish the surface when we trim or otherwise finish the piece at the leather-hard stage. After bisque-firing we can apply a variety of media including matt, semi-gloss, or gloss glazes, aiming for particular surface qualities. During glaze firing the kiln atmosphere, firing schedule, and other variables affect the glazed and unglazed areas in many ways. You begin to appreciate the range of possibilities with even the simplest of forms.

You have been consciously or intuitively exploring surface design in ceramics since you first touched clay, and as you continue this exploration, pay special attention to the cumulative effect of surface treatments. This is one of the most important things you can master in becoming an accomplished ceramic artist - the ability to deliberately plan and implement a range of surface effects through the various stages of the ceramic process, anticipating the cumulative effect in the finished work.

As a general overview:

- At the damp state we can use modeling, impressing, texturing, and a wide variety of additive or subtractive methods.
- At damp to leather-hard stages, the surface can be incised or carved using a wide variety of tools, giving different results depending on the consistency of the clay.
- At damp to leather-hard stages, slip-decorating effects can be utilized in a multitude of ways.
- The bone-dry surface can be modified with a variety of abrading techniques including scraping, carving, sanding and sandblasting, giving effects very different from what is achieved with damp or leather-hard clay.
- At the bisque-fired stage, we can also use sanding and sandblasting, and an unlimited range of engobe, patina, and glaze effects, which can themselves be built up in layers.

- A multitude of firing options are available, including bonfire, barrel, pit, sagger, oxidation, reduction, lowfire, low-midrange, midrange, highfire, salt, soda, and wood, plus multi-firing and overglaze effects such as china paints, lusters, and overglaze decals.
- The glazed surface can be abraded or distressed by grinding, sanding, or sand-blasting.
- After glaze firing there are unlimited possibilities with post-firing finishes and mixed media additions.

There are many ways to consider this myriad of choices, and it can seem daunting. Our objective here is to approach them deliberately, step-by-step, maintaining a proactive involvement in surface design. Too often, artists simply apply additional surface effects whenever they are unsure of what they have accomplished so far, as if more is always better. A damp-clay relief effect that seems marginally effective might be re-activated by a slip pattern or texture, and if that doesn't do it, the surface can be further enlivened by scraping and/or by adding multiple layers of slip. An unsatisfactory slip pattern might be rescued with engobes, patinas, or glazes after the bisque firing. A questionable polychrome slip design can be concealed beneath an opaque glaze. This kind of strategy sometimes results in interesting surfaces, but such a "fix-all" approach to surface design is rarely satisfactory. Instead, we need to become familiar with a broad range of possibilities at all stages, expanding our visual vocabulary so that we can effectively plan the final outcome.

Markmaking: Marks-on-the-Ground

As one of the strategies in expanding our vocabulary of surface design, we will explore markmaking and marks-on-the-ground at all stages of the ceramic process. This is a term borrowed from 2-D art media. In drawing and painting, the process of developing imagery is simply a matter of placing marks on a chosen ground or substrate using a variety of markmaking tools and/or decorating media. With each choice of ground, substrate, mark-making tool, and medium there is an almost unlimited range of possible marks, textures, patterns, or other visual effects, and it is to the artist's advantage to spend serious time exploring them.

Our first objective is to explore mark-making and surface development in working wet, leather hard, and dry clay without the use of any other ceramic media. The following list gives you some idea of the possibilities. Note that in many cases a technique can be used at multiple stages of dryness, and in each case the resulting effect will be very different.

Surface Effects on Wet, Leather-Hard, and Dry Clay (Without Slips or Engobes)

- ***Wet Clay*** – modeling, impressing, cutting, piercing, carving, incising, fluting, faceting, smoothing, rolling, stretching, scraping, texture ribs, profile ribs, texture paddles, stamps, roulettes, sprigging, appliqué.
- ***Soft-Leather-Hard Clay*** – modeling, impressing, cutting, piercing, carving, incising, fluting, faceting, smoothing, rolling, stretching, scraping, texture ribs, texture paddles, stamps, roulettes, sprigging, appliqué.

- **Medium-Leather-Hard Clay** – modeling, cutting, piercing, carving, incising, smoothing, rolling, scraping, shaving (with Surform), sprigging, appliqué,
- **Hard-Leather-Hard Clay** – piercing (with a drill), carving, incising, scraping, shaving (with Surform, but not at very-hard-leather-hard because it will dull the cutting edges).
- **Bone-Dry Clay** – carving, picking (with tip of knife or needle tool), chipping, scraping, sanding, wire-brushing, sandblasting.

Modeled Decoration

“Modeling the clay” simply refers to the process of pushing clay around and shaping it with tools or fingers to create sculptural or relief form. When you create a simple figurine from a lump of clay you are modeling the clay, but for our purposes we are referring to decorative relief that is modeled on the surface of a larger piece. For very shallow modeled effects you can work into the soft clay surface, but higher relief effects require addition of clay to the surface. In some cases, the clay is modeled and then added to the surface of a piece, but it is often more efficient to add clay to the surface and then model the added clay with both hands.

Impressed Decoration

An extraordinary range of marks can be produced by pressing into the clay with all kinds of tools, found objects, and textured or patterned materials. Noticeably different effects may result from striking the clay with found materials or with textured paddles. A wide range of effects can be achieved simply by impressing or beating the clay surface with the raised grain on the edges or ends of a piece of lumber, the rough bark of a tree limb, or the raw face of a broken rock or brick. Many found plant materials can be pressed into the clay to develop pattern and texture.

Pattern/texture paddles are wonderful tools, and can be made by affixing some sort of patterned or textured material to the surface of a paddle, by carving, cutting, or grinding the surface of a wood paddle, or by affixing a textured or patterned bisque-fired tile to a wood paddle. Read the section on page 295 of the text and observe the photograph of textured paddles.

You have all made bisque stamps, but unless you have made hundreds of them you are barely beginning your investigation. Remarkable variations of pattern and texture are possible with bisque stamps and rollers (coggles, roulettes), including standard bisque stamps, wheel rollers, palm rollers, and patterned/textured spheres. Wheel rollers can be mounted on an axle and handle for greater efficiency, especially for use on the potter’s wheel. Read the section on stamps and roulettes on page 300 of the text.

If you drag a tool across a clay surface or hold it against a rotating form on the potter’s wheel, you produce some variation of a groove, ridge, or pattern, displacing clay but not adding or subtracting clay. Any existing wood, metal, or plastic rib may be modified with file, grinder, and/or saw to create a profile or template rib with a particular decorative profile that will transfer to the clay when the rib is dragged against stationary soft clay or held against soft clay

on the wheel. Read the section on profile ribs and observe the photograph on page 296 of the text.

Subtractive Decoration

Subtractive decoration involves any methods where we remove clay from the surface, and generally includes incising, carving, piercing, chipping, scraping, and sanding. **Incising** involves shallow line imagery, and usually the removal of very little material. A dull pencil, old ballpoint pen, a pointed dowel, or a sharp modeling tool are good tools for incising. The character of the incised line will be very different depending on whether you incise the wet clay, or at soft-, medium-, or hard-leather-hard stages.

Carving simply refers to the process of removing clay from the surface with some sort of cutting tool. The potential for carved decoration depends on the wall thickness. If a piece is created with thick walls, then there is the possibility of very deep, dramatic carving, while in many cases subtle, low-profile surface carving can be extremely effective, as in the Chinese carved celadon-glazed porcelains of the Sung Dynasty. Most people carve clay with trimming tools, but a fettling knife or razor knife works well for some kinds of carving on clay. For very fine carved detail, dental tools work especially well.

Faceting and **fluting** are variations of carving, and can be used both on thrown and handbuilt form, and involve cutting or carving flat facets or curved flutes in the surface. **Faceting** is most often done when the clay is still very soft, using a cutoff wire for smooth facets, or a twisted or coiled wire for textured facets. For some faceting effects, Surform tools work well at the leather-hard stage and can leave a pleasing texture not unlike wood grain.

Fluting can be done with a curved band-loop trimming tool, using two fingers on either side of the loop to control depth of cut. If you are serious about doing lots of fluting, you may wish to make some fluting tools as described on page 293 in the text. Broad flutes may also be cut with a curved Surform tool. When planning to do either faceting or fluting, be sure to make the walls thick enough to allow for the depth of your cuts.

Piercing involves cutting through the walls of a form, creating openings into the interior space. This is a technique that drastically changes the character of the entire piece, since we have particular ways of interpreting exterior versus interior space. Piercing is obviously of limited use in utilitarian vessels except in double-wall forms. In figurative work, piercing creates very specific meaning having to do with surface versus interior, in essence accessing the soul of the piece. The power of such pierced decoration is evident in clay masks, and in Japanese Haniwa tomb figures.

Picking and **chipping** are techniques not often used on clay, but they can be employed to great advantage on bone-dry clay for creating effects that look like chip-carved stone. They are often used in conjunction with deep incising, where the clay is chipped along one edge of the incised lines. A needle tool works well for both the incising and the chipping.

Scraping and **sanding** at the bone-dry stage are useful in developing layered or distressed surfaces, and scraping can be employed whenever a gritty or stone-like texture is desired. A metal rib works well for scraping, and for detail work, use single-edge razor blades. For sanding clay, drywall mesh sandpaper works best.

Additive Decoration

Additive decoration includes methods where clay is applied to the surface. In the most common type of additive decoration clay is attached to create variations in surface relief.

Sprigging refers to the process of decorating with sprigs, usually small rolls and/or balls of clay attached to the surface with slip or slurry to create pattern or imagery. In some cases the attachment slip is laid down as a ground of contrasting color, so that the sprigs stand out not only by surface relief, but also by color contrast. The sprigged surface may be left alone in high relief, or it may be lightly paddled to create a smoother surface with only slight relief. In some cases when a contrasting-colored ground of attachment slip is used, the sprigs are rolled completely flat to give a smooth inlaid effect.

Appliqués are small, flat relief forms molded, impressed or carved separately and then affixed to the surface. Appliqués can be made individually, but a more efficient method is to create plaster molds of your appliqués. Carve, model, or impress clay to form the originals, stick them down to a flat surface like a Formica table top, build a clay or wood form around them, apply a thin layer of hand soap, and pour plaster into the form. You can create a single plaster mold with dozens of different appliqué impressions. Once the plaster is dry, simply press clay into any of the impressions to create an appliqué that can be adhered to the surface of a soft-leather-hard piece. When attaching appliqués, be sure to score lightly and use enough slurry to prevent any trapped air spaces.