

# CLAY TIMES

*Mark Gordon's Textural Forms of "Wonder Clay"*

## Rustic Antiquity

BY MAC WARD

**B**elts, bracelets, collars, and clothing in recent years have shown a trend toward spikes and studs. Mark Gordon has taken that trend and moved it into the world of ceramics. His sculptural works react to the feelings suggested by these accessories. "These works began as a response to sharp-cleated wrist-bands and bulldog collars I saw worn in many parts of San Francisco," says Gordon. "As pieces of jewelry, the spike sculptures are aggressive, oversized, crusty, and fragile. My intent was to embody in ceramic materials a sense of rustic antiquity—to explore the genre of "alumino-silicate Mastodon punk."

Such pieces as "Morningstar" and "Spike Log" are provocative in several ways. For instance, their rustic, textural, and sharp-edged surfaces assault the tactile sense. Their size, up to 44" wide, threatens the viewer much more than spiked jewelry does. The interplay of the spikes and bricks with the table surface creates an uneasy sense of balance. The fact that they are high-fired in one piece is a technical feat that deserves explanation!

Thirty years of study and experimentation with making thick-walled pieces and bricks by hand have led Gordon to the discovery of an uncanny clay body. Not only does his recipe call for twice as much aggregate as clay, but the press-molded pieces he creates with it also seem to prefer a dry-wet-dry bonding method that makes timing easy. Since all the small pieces of his sculptures are joined at the bone-dry stage, using a wet slop of the same ingredients, Gordon is never forced to worry about his sculptures getting too dry before he finishes them.

### The Clay Body

To make his 'wonder-clay,' Gordon begins by gathering stoneware scraps from local potters. He slakes these scraps (i.e., he soaks them in water until they are fully softened) and adds powdered clay (mostly fireclay) until the mixture is of slop consistency.

In a clay mixer, he adds a small handful of shredded nylon fiber to a 200-lb. batch

of this slop. This will increase the clay body's dry strength, and will grab onto the nooks and crannies created by the aggregate ("a Velcro® effect," says the artist). Sometimes Gordon will add mason stains to this mixture for color.

Last, Gordon adds two parts aggregate for every one part of the slop mixture (I know, it sounds like a lot, but it works!). Perlite is the aggregate he prefers, for its rough texture and toughness ("tooth") in forming. Mixed-size sawdust can be substituted for perlite. The advantage of using sawdust is its low cost and ready availability. Gordon says, however, that the sawdust tends to create a strong odor if the clay is left to age, which can cause problems in a classroom or public studio.

"The mixed batch will be of the 'stiff slop' consistency used by artisan brick-makers," says Gordon. "The freshly-mixed clay is way too wet to wedge. Because of its softness, full-mixer batches of this clay can be made without strain on the bearings, gears, or belts of most mixers. Due to the predominance of absorptive



*Spiral*. 12" x 11" x 12". Handbuilt from solid clay, unglazed and anagama-fired to cone 10-11.



*Morningstar*. 16" x 16" x 16". Thick layer of cone 06-05 commercial black glaze, fired to cone 09 in an electric kiln.



*Zigzag.* 5" x 26" x 5". Handbuilt from solid clay, unglazed and anagama-fired to cone 10-11.

non-plastics, even slight aging will cause the clay to stiffen quickly. It is possible to leave the mixed 'mound' in the open air: the resultant crust can easily be remixed or slaked in just moments. This clay is not fussy!"

### Forming Methods

Most of Gordon's sculptures consist of two elements: (1) Hollow appendages such as spikes and bricks that are formed in plaster press molds, and (2) Hollow, press-molded cores to which the appendages are attached with slop clay. These cores will be drilled into before firing, so as to free the air inside.

Both of these elements and the slop clay that bonds them are made from the clay mixture described on the previous page. For some sculptures, Gordon foregoes the core and just attaches the molded parts to one another. For his arch shapes, he uses a solid core of his clay body, formed around used electric kiln elements. The wire element coils help hold these cores together during the forming process.

Gordon also mentions that his plaster molds are cast both from found objects and from clay objects he handbuilds or throws.

The dry-wet-dry process is key to bonding the several parts of each sculpture together. Gordon makes sure that all appendages and the core are bone-dry before attempting to bond them with slop clay. The slop clay can be kept wet from the original clay mixing. Or, because it is so easily slaked, the slop can also be made quickly from dried scraps of the clay.

"For the assembly phase," says Gordon, "I slake a large quantity of the perlite/clay/fiber mixture, sometimes adding mason stain. This thick slop clay is trowelled or smeared onto the individual modular pieces, which are then pushed onto the base form (or onto each other).

"There are a variety of factors holding these seemingly-incompatible parts together. First, the large quantity of aggregate (perlite or sawdust) reduces

shrinkage. Second, the nylon fibers help tie together the parts. Third, as the bone-dry pieces are joined to the thick wet clay 'mortar,' they are partially slaked, especially around the edges. Fourth, these dry parts are interlocked and overlapped in the matrix of very rough wet clay. Fifth, the edges of each form and the surfaces of the inner core structure are craggy, allowing for a 'grabbing' of the wet clay (the English muffin effect). Sixth, I push very hard so that the mortar-clay squeezes out and squeezes around. Seventh, there might be a sort of 'paper-clay effect' going on that I don't know how to articulate." He adds that, "sometimes pieces crack, but usually this is cosmetic rather than structural. Generally the surface treatment covers cracks; sometimes I leave them in."

### Surface Treatment Before the Bisque Firing

"For a number of pieces," says Gordon, "I paint or spray a thin coating of the same slop mixture; this helps unify the surface visually. I use about seven different



*Brick Sphere.* 22" x 23" x 20". Glazed earthenware fired to cone 2 with inclusions of iron, copper, salt, and glass.



*Cylinder Arch.* 13" x 14" x 6". Glazed earthenware fired in reduction to 1900° F with white raku glaze and a light wash of copper.



*Spike Log.* 12" x 44" x 13". Unglazed, handbuilt, anagama-fired to cone 10-11. Extra ashes covered the piece prior to greenware firing.

spray devices, from a standard spray gun to an automotive undercoating gun, to a ceiling-texture sprayer. Sometimes, to finish the surface prior to bisque firing, I spray or paint a coat of thick, white slip."

#### Bisque Firing

"Due to the presence of communicating capillaries of sawdust/perlite," Gordon says, "firing can be done quickly without danger of blow-outs. The water-smoking phase (from around 180° F to 220° F) proceeds smoothly, even with thick-sectioned pieces. At roughly 451° F the sawdust begins to ignite, causing an exothermic reaction within the pieces.

"Firing time can be greatly reduced by 'catching' the upward curve of this progression, and adjusting the burners to support a continued temperature increase (otherwise, the temperature tends to decrease after the exothermic peak). Care must be taken to extend the carbon burn-out phase (572° F to 1292° F) to avoid black coring."

#### Glazing and Final Firing

For many pieces, such as "Spike Log," Gordon relies on the flashing and ash deposits of an anagama firing as his only glaze (temperatures vary). Keep in mind that he may add mason stains to his clay body for color. For other pieces, he uses combinations of oxide washes, slips, raku glazes, and commercial low-fire glazes [see recipes provided on opposite page]. These pieces are raku- or low-fired.

Handbuilding on such a large scale as this usually challenges the nature of typical, commercial clay bodies when formed using standard techniques such as coiling and slabbing. Most readers have probably had difficulty at some point when varying wall-thickness has caused cracking in the firing process, when sculptures dry unevenly, or when they become too dry to modify. For these reasons, the advantages of new techniques for large sculptures—such as Beth Cavener-Stichter's solid building (see "Animal Confrontations," *Clay*

*Times*, July/August 2006)—have become increasingly popular in the field. But this technique is still generally used with regular clay bodies and is still limited by the drying process, as pieces have to be finished when wet or leather-hard.

Mark Gordon's dry-wet-dry technique may be preferred for several reasons. It does not require the artist to complete a sculpture before its parts are bone-dry; the clay body this technique requires is economical, as the bulk of its volume is composed of sawdust that is often obtained for little or no cost; and the clay is unusually resilient in firing. ©

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*Goblet Log.* 10" x 32" x 9". Glazed earthenware fired in reduction to 1900° F. Surface composed of a thin layer of white raku glaze over a thick coating of copper wash with added copper chunks.



*Slab XX.* 21" x 21" x 3". Basic clay mixture described in text, with addition of the following during forming: glass, pyrometric cones, copper and iron chunks, and assorted hardware. Fired to cone 3 in gas reduction.



*Green Star.* 27" x 26" x 24". Commercial earthenware fired to cone 02 in gas reduction. Cone 06-05 green glaze underneath; dry-brushed commercial low-temperature black glaze overcoat.

## SLIPS, WASHES, & GLAZES\* used by Mark Gordon

### White Slip

Feldspar	25%
Ball Clay	25
Kaolin	25
Silica	<u>25</u>
TOTAL	100%

### Copper Wash

Copper Oxide	90%
Gerstley Borate	<u>10</u>
TOTAL	100%

*add:* a sprinkling of rough-screened chunks of calcined copper wire.

Use thickly!

### Raku White

Gerstley Borate	66.67%
Nepheline Syenite	16.67
EPK or English Kaolin	8.33
Zircopax or Opax	<u>8.33</u>
TOTAL	100.00%

### Copper Raku

Gerstley Borate	80%
Nepheline Syenite	<u>20</u>
TOTAL	100%

#### \*SAFETY NOTE:

With the exception of "White Slip," the above formulas should be limited to decorative use only and should not contact surfaces used to contain food or drink.