Working Large Scale

A CERAMICS MONTHLY

PORTFOLIO

BY MARYLYN DINTENFASS

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Portfolio cover Drawing (top) for "Imprint Fresco," inlaid porcelain on painted plywood panels, each 8 feet in height, shown (bottom) installed at the Port Authority of New York and New Jersey Bus Terminal.

Above Owned with 12 other artists, this historic factory building provides well-lit studio space for producing large-scale reliefs; tools shown here are sorted into slab-built containers.

Opposite Marylin Dintenfass and "Imprint Fresco" in production at the author's studio in New Rochelle, New York. After constructing her first commissioned relief in a basement studio too small to allow the entire sculpture to be assembled for viewing, she "vowed never to let that happen again."

After 20 years, I still find myself saying that I am only working with clay temporarily. But it continues to fascinate me.

I'm sure if I had worked with clay from the beginning, I wouldn't have been able to bring as much excitement to it as when I discovered it later on. The medium that fascinated me as a student was printmaking. Each print was a series of steps and with each step the image could be refined, defined and clarified. This process-oriented approach affected my visual imaging and became the basis of my clay working method.

My first reliefs were organic shapes with extruded images much like the lines used in etching. Oxides were rubbed into the textures in much the same way as ink on an etching plate. I was continually experimenting with various clays, glazes, firing techniques, and often explored printmaking processes for translation into clay. Such limited-production pieces were salable, which helped pay the rent, while entering juried exhibitions encouraged me to take more chances. These early forms were used as the basis for larger, more elaborate wall sculptures, as though they were three-dimensional sketches.

Understanding that clay is a medium that can't be worked large directly, I began composing large-scale sculpture with small units. An invitation to exhibit at the Schenectady Museum in 1977 encouraged me to develop these concepts even further as progression pieces integrating process and imagery—the images came from how the pieces were made.

It was this work which was noticed by an architect looking for sculpture to complete a collection for Benton & Bowles, a New York advertising agency. Invited to see the space, I realized I had no completed wall forms that were appropriate. I suggested a commission and was told that was out of the question. I countered with an offer to make a presentation, without obligation on the firm's part. When the presentation was made in the summer of 1978, it was accepted.

Thinking back to when "Quadrille" was produced for Benton & Bowles, it is sometimes hard to believe it was made in a basement studio with low ceilings and only a thread of natural light. While working for months in that confined area, it was imperative to keep in mind the space where the relief was to hang.

After several visits to the installation site in the firm's reception area, I discovered it was also a thoroughfare for employees. The wall was angled to align with the entrance, giving it more importance, but also creating a perception problem. What was needed was a sculpture that could be quickly read, but which would also hold up to prolonged study, while giving the illusion of depth although in reality being very shallow.

Because I had committed myself to an exact perimeter, one of the first things that was needed to establish was the precise shrinkage of the clay. (I still run a shrinkage update for every relief.) While the tests were being made, I did a full-size drawing to correct and finalize the design. With the shrinkage rate confirmed, templates were made for wet scale.

For "Quadrille," I tried to predict which modules would be the most trouble, and made several of those. I was always wrong. If three were made, they would all come out perfectly; if two were made, they would both crack.

Experimenting with various remedies, I found that lowering the firing temperature would maintain the desired body tightness and surface, yet would eliminate some of the movement which produced cracking. This required the development of a Cone 3 glaze which would simulate the approved Cone 10 recipe. Meanwhile, 18x18x¼-inch slabs

Top For a final review before installation at the terminal in New York City (opposite), "Imprint Fresco" was assembled along the New Rochelle studio wall.

Middle A scale model (mounted on a board behind the artist) is used as a reference in positioning and assembling porcelain slabs into modules for a piece named "Parallax."

Bottom The completed "Parallax," 22 feet in length, porcelain, installed at IBM, Inc., San Jose, California.

Opposite Installation can be a big job requiring specialized equipment and the artist's skill. Mounting "Imprint Fresco" required a maze of rods supporting 350 inlayed colored porcelain panels.

of Grolleg porcelain were lost right and left—lost during drying, firing, handling, bisquing and glazing. So every day, they were redone slightly differently. I probably made "Quadrille" ten times, if you count all those losses.

It was through these disasters that I discovered some successful and, perhaps, innovative techniques. My method involved consulting the library, then friends, other ceramists, and suppliers. No one had the precise answers. But by gathering enough data, my instincts would usually lead to decisions which were right for the work. If I knew what I wanted to say and that image or concept was strong enough, I could somehow find a way to make it.

The last days before the installation, I was convinced that it was good the modules had been made to be removable, because on the Monday following installation there was sure to be a phone call asking me to do just that. I now call this the "preinstallation blues" and consider it a fairly predictable aspect of working large scale. There was even a related moment when all the modules were placed on the floor and I realized that a definite order of hanging had not been taken into account to allow for overlaps. Had I locked myself into an unsolvable nightmare?

Fortunately, this was not the case, but that moment of doubt sharply emphasized the worst aspect of producing "Quadrille"—my studio was so small, the whole sculpture could not be assembled and viewed until it was at the installation site. I vowed never to let that happen again.

During a search for larger quarters, it soon became apparent that the larger the space, the cheaper per square foot it would be. So I joined forces with another artist to establish our studios in a former pickle factory, renting out the remaining space to other artists.

The experience of exploring so many factories and warehouses, then designing and building studio space, changed my vision substantially. The organic sensibility, so prevalent before, had been replaced by the imagery of structure. Girder, post, beam, window and bridge images eventually proved to be important parts of subsequent series.

The first work in the new studio involved a group of 20x20-inch slabs which were used as surfaces to inlay, incise and stencil. Out of 16 slabs, only five were good ones. But eventually some interesting small constructions resulted.

I'm stubborn. I realized that to work bigger, I would have to find a way to work smaller. The technical limitations of the medium were also dictating a conceptual orientation affecting the images and design of my work.

At the time these new forms were being produced, a long-pending commission came in from IBM. However, my work had evolved from the softer shapes in my original proposal. After visiting the construction site in Charlotte, North Carolina, I spent the return plane ride thinking about how to fuse with my new work the elements the clients were expecting.

Offered another proposal, IBM took a chance and agreed to let me do the work I was most excited about. Nine months and two tons of porcelain later, I wasn't so sure they had done me a favor. I wanted to project an illusion of three dimensions from a two-dimensional surface by manipulating perspective. The final form measured 20x7 feet, consisted of three main connecting parts composed of nine interlocking units, and was assembled on a 200-pound plywood substructure joined by shims and dovetailed joints. The entire relief weighed more than a ton and was composed of over 2000 individual slabs all cemented to the substructure. It took many long nights, lots of pizza, Chinese food, and a consuming desire to disprove Murphy's Law.

Gaining a commission is a unique experience, mainly

Top "Virgula," 24 feet in length, porcelain, installed at Main Hurdman in New York City.

Above "Quadrille," 6 feet square, Grolleg porcelain slabs, with a semimatt translucent nepheline syenite glaze, fired to Cone 3.

Opposite Each commission begins as a presentation drawing with an overleaf showing details and colors. When the sculpture is accepted by the client, exact scale drawings of the finished form are made (top right) prior to scaling up for wet-size templates. The templates are numbered (middle left) and section cuts indicated. Half-scale paper models are then made (middle right) to evaluate perspective as well as indicate possible fabrication difficulties. A pug mill (bottom left) saves labor by processing scraps immediately after slabs are cut. Synthetic suede cloth facilitates passing the clay through the slab roller (bottom right), which forms consistent slabs.

because you sell something which does not yet exist. In this situation, the interaction of the artist with the client or art consultant is crucial. The artist must describe the missing ingredients so the client will feel that the work can, in fact, be produced.

Putting together all the elements of a commissioned artwork often feels like feeding a computer; there are so many variables: concepts for new work, current forms, characteristics of the site, along with the financial and time restrictions. Presenting something that feels right is never easy. There is an awareness of trying to please the client—something which is in conflict with the usual creative process of trying only to please yourself.

My first criterion is always: does it feel right in the context of my whole body of work and my current aesthetic direction? Because the commission process is fraught with delays, you may be selected on the basis of work you are no longer doing, and then you cannot answer the question affirmatively.

Though I can reexplore a concept I have tried before, I prefer to break new ground in one way or another. That's what keeps it exciting. Sometimes a bit too exciting. Each time you try to reinvent the wheel, there are bound to be some flat tires.

I see the commission process as a trade-off. Several times I have been invited to a collector's house only to see some of my small, exhibition works (done while thinking only about my own concerns) badly hung, poorly lit and surrounded by incompatible objects. A commission allows me to redress these flaws. I will know the scale of the site and the way the work is first viewed, and will have some say in the lighting. The work will be shown in the way I have specified. This can be very satisfying.

Still, it would be a mistake to do only commissions. The best situation is a balance of commission and exhibition work.

It was a black day when our landlord said he would not be able to renew our lease. For any artist, the loss of a productive and affordable studio is terrible, but for a ceramist it is especially difficult and costly. You are forced to move a small industry.

Recovering from the shock, we decided to do everything in our power to insure that this would never happen again. I had talked before about trying to own a space, but there is nothing like the threat of homelessness to put a fire under you.

In the fall of 1983, I moved into a large, historical, mill-type building in New Rochelle, New York. The richer textures and surface of this structure, together with the study of color in Italian frescoes, have resulted in the incorporation of colored clays in my newest work.

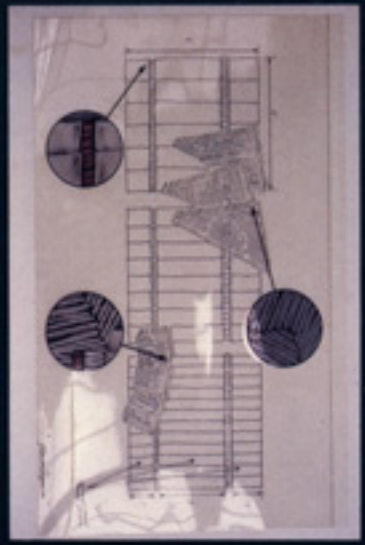
Long ago I decided not to get into mixing one clay, preferring instead to experiment with more than one. If I had spent a lot of time developing a body, I would probably feel obligated to use it exclusively. This way I can explore a new clay for each piece, if I feel like it. In fact, a new body has sometimes suggested new work.

I also like the idea of readily available clay. I have had custom bodies mixed in the past, but this entails ordering large amounts and sometimes waiting a long time for delivery.

Since my work in colored clay has increased, I have had to mix relatively small batches (300–500 pounds) by hand. Experience indicates that slip mixing and bat drying are the only reasonable ways. Therefore, I buy clay dry mixed and add colorants in quantities of approximately 5–15%.

The nature of porcelain demands that extensive care be taken to work with clean, dust- and particle-free equip-






Photos: Rich Baldinger, Rena Hansen, John O'Donnell, Nick Saraco, Joanne Sieburg Baker

Top and middle The design studio. Gaining a commission involves selling work which does not yet exist. The proposal "must describe missing ingredients so the client will feel the work can, in fact, be produced."

Bottom Top-loading electric kilns are preferred for loading large, thin slabs for oxidation firing.

Opposite The undersides of thick slabs are textured (top left) to promote air circulation during drying and firing. Cube and triangle elements (top right) are dried thoroughly before single firing. Components, made of colored porcelain slabs formed over cotton-covered pipes, are dried in wooden "tracks" (middle left). Nine wooden substructure sections (middle right) are assembled on 4x4s nailed to the floor. Fired components (bottom left) are matched to the original scale drawing. The substructure is screwed together to insure alignment (bottom right).

ment and tools. A slab will easily pick up a pea-sized scrap on the table or roller, and have to be redone. Attention to cleanliness benefits personal safety as well.

Producing and handling large slabs are made possible by a slab roller; it has a 30-inch, two-roller drive, allowing for infinite thickness control and slabs of any length. I use the back side of a heavy, synthetic suede cloth to pass through the rollers because the suede side grips the roller and the cloth side is absorbent and without weave.

To increase flexibility and strength, the slabs are rolled slightly thicker than needed, then compressed in the opposite direction prior to cutting. On large, thick slabs, I use a waffle-patterned roller to texture the backs. This provides a network of tiny feet which allow air circulation during drying and firing, plus a good surface for gluing.

One addition to the studio which really made a difference was a pug mill. The use of templates produces a tremendous amount of scraps, and porcelain is difficult (if not impossible) to wedge after going through the slab roller. Running scraps through the mill immediately after slabs are cut reduces fabrication time.

The most critical stage for large-scale porcelain slab work is drying. If a piece has dried slowly and evenly, the chances of a successful firing are increased a hundredfold.

Oversized slabs are difficult to turn without stretching or slipping, so I dry them on varnished boards covered with thin plastic (from the cleaners) then cotton sheets. The plastic provides a slippery surface for the clay to shrink on and the cotton absorbs moisture. The slab is carefully laid down on the sheeting and another sheet is placed on top, followed by another piece of plastic. As water evaporates, it condenses on the underside of the top plastic and is absorbed by the cotton. The plastic is turned daily (twice a day during the first two days) to remove the excess water. This process cannot be hurried, and very large slabs will take many weeks to dry. Slabs which have dried without warping and cracking will almost always fire that way.

The concept of slow, even drying has encouraged me to experiment with firing wet. This must sound like a contradiction, but in certain situations long, thin, fragile slabs, which would be impossible to load green, can be placed in the kiln while still wet, allowed to dry with low, gentle heat, then taken up to temperature.

For time as well as economic reasons, I make every effort to fire work only once. Each additional firing adds risk.

My three top-loading electric kilns are hard on one's back, but are preferable for loading large, thin slabs. The largest has a 16-cubic-foot chamber; it can fire pieces as large as 38x28 inches. The closest I have come to that is a wet slab measuring 14x38x½ inches. It took a couple of tries, but finally made it. Having three kilns in different shapes offers a great deal of flexibility for experimentation and economy.

Large slabs are fired with a dusting of sand or flint on the kiln shelf. Air flow is the most important element for successful firing. I try to leave sufficient time for unhurried firings, taking it slow around the quartz inversion temperatures.

To transport fragile works, wood crates are an ideal and perhaps essential choice. The weight of the crates themselves adds to security, requiring careful handling. My reliefs often have plywood substructures and can be screwed directly into the crates, thereby floating them within the packing space. In fact, works crated this way can be turned in any direction and still be secure. Some foam or bubble wrap is also used to protect edges from vibration.

The safest, quickest and usually cheapest method of shipment is with one of the large national firms, which has a high-value products division. They carry delicate and

Top The triangle and cube sections of "Cubic Themes" were glued to the substructure first.

Middle Custom crates are constructed to support each panel for shipment.

Bottom Parallel hanging bars are attached to the wall to match the backs of the panels.

Opposite Shown under construction here and on previous pages, "Cubic Themes," porcelain, 20 feet in length, was installed at IBM, Inc., Charlotte, North Carolina.

valuable equipment like computers and exhibits for trade shows, and will carry artwork with care. For me, the most important factor is that the work will almost always be delivered by the same person who picked it up. Once, while I was waiting in San Jose for a delivery, I found out that the van was in a snowstorm in Wyoming. But I knew the driver and was certain he would come through. He did. Another time, during a particularly difficult installation in Charlotte, North Carolina, the drivers saved the day by standing in for some hired help who didn't show up. These trucks are an unbelievable source of equipment and, at that time, necessary supplies.

My worst fear used to be that I would receive a call late one night informing me that a piece had fallen off the wall. Initially, I had developed intricate methods of gluing, reinforced with a variety of screws, bolts, etc.—a classic case of overdesigning. A conversation with an engineer involved in building a 40-story skyscraper helped put things in perspective. When I asked how the black granite panels were affixed to the building, he replied, "Epoxy." Imagining some additional esoteric hanging device, vises, clamps and rods, I asked, "What else?" He explained that holes are drilled into the granite, bolts are epoxied, then the panels are screwed to the building frame. What a relief! If he could sleep nights without worrying about a 400-pound panel of granite falling off his 40-story building, I would easily sleep without worrying about my 30-pound porcelain slab falling 4 feet.

We also are using similar epoxies. My initial research into glues persuaded me to look for something that had been around for a while. I also wanted something that came with a phone number I could call in case something went wrong. (By the way, 800 numbers are an excellent source of good information.) I now use a variety of glues for different purposes.

Good studio assistance is perhaps the most essential and enjoyable aspect of working large scale. My staff usually consists of a studio manager (presently Abre Chen), someone to help with the office work and several (five to seven) assistants who work a specific but part-time schedule. Many of my assistants are present and former students from Parsons School of Design, New York City, where I have taught since 1980.

Although the studio managers are always experienced in clay, I also look for helpers who have other art training and skills. I welcome participation in all areas of production, and especially enjoy the unique talents which enrich the work and working environment. This means that each commission takes on a quality reflecting the energies and experiences of my assistants on that particular project.

Working large and on commission means that nothing is standardized; each form requires its own production plan, and at different times during production, the need for assistance changes radically. Having a large, experienced, yet flexible staff allows for the inevitable ebb and flow of the work load. It also means that the staff has various other work associations, which add immeasurably to our collective resource network.

Our week begins early Monday morning with coffee and the studio book, a large notebook permanently kept on the desk. It lists daily jobs, goals for the week and long-range objectives. The first stages of a new work might involve putting slides together for presentation, drawings, making paper models, constructing templates, testing new clays, stains and glazes, rearranging the studio and determining production procedures. The challenge of beginning a whole new approach, almost a new studio, with each project is one of the most exciting elements of working large scale.