## Forty-five Years with Indian Clay

In December of 1970 Deborah Smith, a young American, arrived at the Sri Aurobindo Ashram in Pondicherry on the southeast coast of India. Pondicherry, unlike most of colonial India, which gained independence from England in 1947, was a French colony until 1954, and it was here that Aurobindo Ghose, revolutionary-turned-mystic, found political asylum from the British in 1910. His ashram, started with a handful of followers, by 1970 had become a community of 1500 people engaged variously in small scale service and production units—laundry, bakery, handmade paper etc—and on her second day at the ashram Deborah was asked if she would be willing to start a pottery.

I met Deborah in the Ceramics Department of the University of Southern California in 1969. She had just returned from two years in Japan after graduating from Stanford University in Japanese language. In Japan she had apprenticed for a year with master potter Yamamoto Toshu in Bizen. She was on her way to Japan again, this time for three months as interpreter for our professor, Susan Peterson, who was researching her book on Shoji Hamada. I was on my way to Europe after a protracted university career that included three years studying art on a basketball scholarship at Pepperdine College, four years in architecture school at USC and finally a BFA in ceramics. Deborah and I had discovered in each other a vague interest in the philosophy of the East—not uncommon at the time—and would meet again in India.

We began The Golden Bridge Pottery in Pondicherry in 1971 in a 10ft x 20ft palm leaf shed. Deborah intended to work as an individual studio potter, producing a very limited line of glazed stoneware. I thought that I was going to build her a kiln and move on. We had no idea what we were beginning, but in 1972, Deborah's mother visited and prophetically called our fledgling efforts—without a hint of sarcasm—"the South Indian Ceramic Center"!

Early decisions. Deborah's ceramic background was a year in Bizen, where pots without glaze are fired with wood for days. Mine was a mix of Carlton Ball/60's/California/Japanese/cone 10 functional stoneware which, with a dash of Clayton Bailey funk, had already morphed into sculpture before I left the university. In 1971, on the Coromandel Coast of South India, neither Bizenware nor cutting-edge ceramic art seemed appropriate. So functional stoneware it was. We had very little experience with clay/glaze chemistry. (Susan Peterson had kindly allowed me to skip her glaze class at USC.) Testing began, and I built a 30 cu. ft. cross-draft kiln fired with kerosene and water dripped onto hot iron plates. At the time, just prior to the oil crisis of '73, wood seemed a too-precious option. The old woman herding goats through the parched field of thorn bushes surrounding our shed picked up every stray twig.

Power in those days was limited and unreliable. Kick wheels, clay slaked and sieved into terracotta drying tanks, and natural-draft kilns require no power and are still adequate for our greatly expanded production today. Raw materials were sourced from India's well-developed heavy clay industry. After exhausting excursions by bicycle in the treacherous heat of May in search of a local clay source, romance was overwhelmed by expedience. Now we mix a stoneware body using fireclay, ball clay, china clay, quartz and feldspar purchased directly from mines in Tamil Nadu, Andhra Pradesh and Gujarat. Two types of village potter's clay and river sand are from local sources.

For the first five years Deb and I worked together with two or three apprentices drawn from the ashram community. As apprentices moved on to establish their own studios, we decided to train young men from the adjacent village to work in the pottery.

Today, working under a sprawling complex of open, tile-roofed sheds, Deborah manages 14 workers producing a line of more than 200 functional stoneware forms on orders that are more than she can fill. She has done all the decoration of GBP ware since 1987, when I took my fired-building experiments beyond the pottery compound, and her painting has become the signature of Golden Bridge Pottery. We now fire with wood—casuarina, grown locally as a fuel crop—in a 70 cu. ft. car kiln with a Bourry fire box modified to preheat primary combustion air. A new craft tradition is emerging: 'Pondicherry Pottery.' Buyers from India and abroad now come to Pondicherry/Auroville looking for ceramic product from some 25 workshops varying in size from studio potters working alone to small-scale production units employing up to forty people, making everything from raku to porcelain. The makers range from educated Indians and Westerners to unschooled village entrepreneurs. Studio artists seek their own distinct styles, while entrepreneurs try their best to mimic Golden Bridge.

**Students.** In 1983 I opened a seven-month training course for students, thus separating teaching activity from the pottery production. We have had four to six full-time students almost every year since then—people from all over India. We are a working pottery. Students have access to highly skilled production potters at work in all parts of the process. We turn them loose into an abundant infrastructure and give enough direction to get them off the ground. Kilns are big enough to get real work into, wheels are numerous, and space is open and extensive, all providing an opportunity to get deep enough into material and process to develop something of value.

Students are encouraged to become honestly self-critical with enough confidence to start their own workshops or go anywhere in the world for further experience. We invite different approaches by bringing in other artists for workshops. Since 1997 we have hosted workshops with artists/educators from abroad, including Susan Peterson, Jane Perryman, Jim Danisch, Mike Dodd, Sandy Brown, Betty Woodman, Jeff Shapiro, Jack Troy and Tim Rowan. Though we do preach GBP standards, we do not expect students to remain stuck in a GBP aesthetic. Today our students are about as interested in making functional stoneware as the sons of Indian village potters are interested in continuing in their fathers' footsteps. Former students, now serious artists in their own right, are enriching the field of studio ceramics in India and abroad.

**Terracotta.** Palanisamy, a village potter from Pudukkottai District, is throwing thickwalled, open-bottomed earthenware jars for Lisa Henriques, a Canadian who has come to GBP to learn to make water pots in the traditional South Indian way. Lisa is struggling to paddle the thick cylindrical wall into a generous, almost perfect sphere less than a quarter inch thick.

And ironically, Palanisamy is struggling to keep his tradition alive. Deborah and I met Palanisamy twenty years ago while on a tour of southern Tamil Nadu. We were looking for makers of Tamil Nadu's monumental terracotta horses for the Madras Craft Foundation, and in Palanisamy's village we found a thriving potters' community of six families making everything from water and cooking pots, to marriage vessels and ritual animals for their local Aiyanaar shrine. Today Palanisamy runs a tea stall in his village, and the other potters, except for the month before the harvest festival in mid-January when they do make pots, are making in cement the large cow feeders and chicken coups that they used to make in clay. Cement has replaced clay as the preferred material for the Aiyanaar horse, which was without a doubt among the largest, most extraordinary terracotta sculpture that has ever been made anywhere.

**Fired building.** In 1985 Deborah took over the GBP production and I began a twelve year odyssey in "fired building" technology. I stopped firing houses in 1997, mainly because I had viewed the process as an experiment in the pursuit of an eco-friendly technology, and in fact it proved to be too energy-intensive for sustainable development. But, living in the thrall of the process—on technical as well as aesthetic levels—I continued to fire houses long after I realized that it was not going to work as I had hoped. There is nothing quite as exhilarating as a very large kiln: a series of six or eight volumes connected with a winding tongue of flame—a roiling dragon of incandescent fire—retained by an undulating roof-scape of mud vaults and domes. As a potter—and pyromaniac of sorts—with a university background in architecture, I was drawn to the idea and then captivated by the process—and by the challenge—of making such a patently absurd notion work.

And it does work. Though the energy audit was not what I had hoped for, an aesthetic was born from the process that met with wide appeal. To fire what is essentially a large mudwalled kiln full of heavy clay product—brick, tile, drain pipe, etc.—and finish it, post firing, as a house presents an extremely limiting set of design parameters. Mud. No tensile strength so no flat roofs. Static load—compression. Dynamic load—thermal expansion while firing. But high vaults can be fired and r.c.c. slabs cast inside after the firing. Clusters of vaults and domes can be connected with conventional flat roofing techniques. And all manner of interesting terracotta can be fired along with the house and used in finishing.

Each year of testing brought new ideas. Firing efficiency was always the primary focus and led to larger structures with common walls and connecting flues between rooms—not unlike standard multi-chambered kilns. Going beyond the basics of firing efficiency to design a house always compromised fuel consumption. Finally I began mixing coal dust into the brick of both product and structure. Six hours to ignite the coal layer in the base of the first chamber, then just let it burn at leisure. Five or six days later, open the doors, unload the fired product and start finishing. This actually solves the problem of fuel consumption, but you sacrifice control of the fire. If you get it wrong you either under-fire the structure or melt down the product brick—or both.

I returned to my studio in 1996, but the challenge of large-scale clay work remains in my current installations of ceramic sculpture expressing environmental themes.