Hands On

by Frank D. Welch, FAIA

Simone Swan tells of riding with friends through Texas’s Big Bend country for the first time in 1991, and passing old Fort Leaton outside of Presidio. She asked the driver to stop. She went in the thick-walled, adobe structure, and before her friends coaxed her back into the car, in an intuitive flash she had asked if she could have a job in the landmark. In a few weeks she came back, rented a room with a Mexican family in Presidio, and was working at Fort Leaton as a volunteer demonstrating how to make adobe bricks.

Thus began Swan’s love affair with that dry, hot land along the meandering Rio Grande, and with the towns of Ojinaga (pop. 25,000) and its sister city Presidio (pop. 5,000). Since 1995, she has built—with dweller-owner labor—low-cost, energy-efficient dwellings of great presence and elegance from sun-fired adobe, which is made from dirt, sand, water, straw, and manure for viscosity.

The Big Bend was an unlikely place for Swan, a woman of beauty and intensity then in her mid-60s, to make a career change. Born in Brussels, Belgium, to American parents, she was raised in Europe and Africa observing the “pyramids and temples of Egypt and vernacular housing in the Sudan, Uganda, and the Congo.” Fluent in several languages and long associated with cultural organizations like the Menil Foundation (for which she served as founding director from 1972 to 1977), Swan also found time to build Houston’s first Tin House at Roy and Blossom streets in 1972 with Eugene Aubry, FAIA, and Swan House on Long Island in Southold, New York, with Charles Moore, FAIA, in 1975. She now “winters in Presidio and summers at Swan House.”

In 1973, Swan was having dinner with friends in Paris; one of the guests told her she should read Egyptian architect Hassan Fathy’s Architecture for the Poor, An Experiment in Rural Egypt. Inspired by her reading, she wrote Fathy and received a gracious letter in return. Swan then took a leave of absence from the Menil Foundation, went to Cairo, and spent a month in Fathy’s studio absorbing his philosophy and methodology. Until his death in 1990, Fathy was Swans’ mentor in her quest to learn about adobe architecture—how to design with the material—especially vaulted roofing “with no wood whatsoever,
no forms, no centering, no beams,” says Swan, with the aim of developing low-cost housing in arid climes. In 1977, with a grant from the Menil Foundation, she established the Fathy Project in New York, which promoted low-cost, energy-efficient housing, and was congruent with the foundation’s interest in helping achieve social justice for the world’s poor. Her public information system and educational materials, which the Fathy Project issued, won the Aga Khan Award in Architecture in 1980.

Swan’s first venture into adobe was a house built in Ojinaga, Chihuahua, just across the Rio Grande from Presidio. The house was built in 1955 with the owner-dweller Daniel Camacho and the assistance of Maria Jesus Jimenez, Swan’s talented assistant. It featured, as in subsequent models, high, gracefully proportioned adobe vaults and domes; the quoted unit-cost for the 5,500-square-foot prototype was $111-per-square-foot, “three-quarters of which went to salaries,” says Swan. The smooth exterior surface was finished by hand and sponged with the same adobe mixture as the bricks, created with materials close at hand—in this case with “fine” earth mined from a nearby roadside embankment. The little structure continues to receive visitors from across the country and Europe.

Recently completed is Swan’s own residence, on a 430-acre mesa east of Presidio, with a view of the winding Rio Grande, the 8,000-foot peak of Chinati Mountain, and the pleated grey mountains of the steep Sierra Matas Aguas in Mexico. At 1,700 square feet, the house, which is equipped with solar power that pumps water 750 feet up from a creek below the mesa, is more complex than the small dwelling she built across the river, but has the same language of articulated domed and vaulted forms. Due to a higher wage scale, Swan has projected a $44-per-square-foot cost for her structures on the Texas side of the river. She plans to grant a limited number of parcels at La Mesa to friends and allies who will respect the landscape and adobe architecture.

Today, Swan continues to seek approval for low-cost financing for her adobe prototype from the United States Department of Agriculture’s Rural Housing Service, based in El Paso. Her goal is not simply sustainable and do-able, inexpensive construction, but an architecture of quiet, compact nobility for those who usually cannot afford such. It is not a dream; she has already made it a reality.

Frank Welch, FAIA, practices in Dallas; he is a TA contributing editor.