

Simone Swan

In a remote Texas border town called Presidio, a New York woman of means revives mud-brick homebuilding with methods she imported from Egypt. **By John Davidson**

“I looked down, saw a bucket of earth and a little trowel, and suddenly knew what I was going to do,”

says Simone Swan, recalling the day in 1991 that she and two friends followed the road running along the Rio Grande from Big Bend National Park to Presidio, Tex. Swan had never been to that remote part of far west Texas, but it seemed vaguely familiar, a bit like Egypt, with the river running through the desert and the intensely cultivated river valleys. They had stopped at Fort Leaton, a 19th-century trading post being restored by the Texas Parks Department. Beguiled by the old ruin, with its vast rooms and cool adobe walls, and dreaming of building such structures herself and teaching others to do so, Swan asked to speak to the curator, Gilberto Velasco.

At the time, Swan was in her early 60s and had the sort of life that most people would envy—a wide network of interesting friends, including artists and diplomats, in the United States and Europe; a rent-stabilized apartment on Fifth Avenue in New York with great views of Central Park; a house on Long Island designed by architect Charles Moore. She had no intention of moving to Presidio, an isolated, dusty outpost on the Mexican border, but she was a woman possessed by a vision, and ready or not, she found herself taking that first step. “Mr. Velasco, do you have a job for me?” she asked.



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"No, but we take volunteers," she says he told her. As Swan went on with her friends, she kept thinking about the bucket of earth and the trowel. It seemed like such a small beginning, but the vision she had was nothing less than immense—to introduce ancient Egyptian building techniques to the southwest United States, to revive the use of adobe there, and to reform low-income housing.

Swan had been an apprentice of the late Hassan Fathy (1900-1989), an Egyptian architect and utopian thinker who rediscovered how Nubians, who had lived in what is now Sudan, built vaults and domes with adobe bricks. Because no wooden forms are required to support the ceilings, the technique is ideally suited to poor people living in desert climates, and indeed adobe had been used by Native Americans of the Southwest for centuries. Rather than buy expensive lumber and tin to put roofs over their heads, people can simply scoop up the earth they stand on to make dwellings with vaulted roofs and domes, dignified spaces in which the human spirit can grow. The houses are easy to heat in winter and cool in summer. They use no precious resources.

Swan thought the houses could be an alternative to what one sees in the worst *colonias*—unincorporated subdivisions littered with cramped cinder block huts, rusting mobile homes, and shacks pieced together with scraps of wood, cardboard, and tin. "I'd like to vanquish the mobile home," Swan says in her flutey, well-modulated voice. "Give people a good alternative." All that would be needed was knowledge, a way to revive and refine the local building techniques using adobe.

On the way back to New York, Swan visited Sissy Farenthold, a friend in Houston who had run for Texas governor in 1972, and confided what she was thinking. Farenthold's facetious comment that it would be good for Swan's résumé provoked a laugh at the

thought of a woman in her 60s building a career. But when Swan got back to New York, she called Velasco and told him that she would work as a volunteer at Fort Leaton.

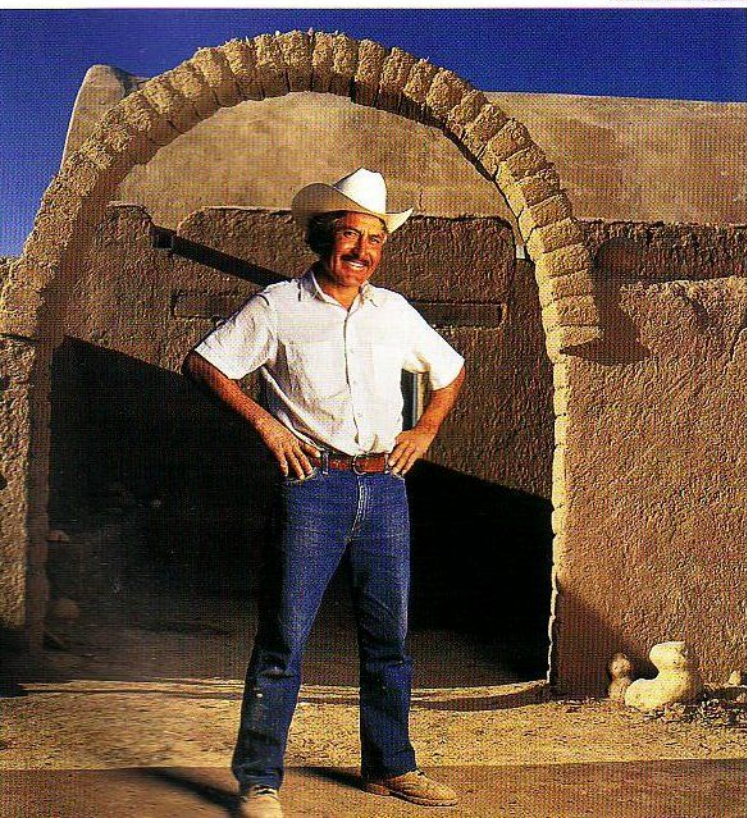
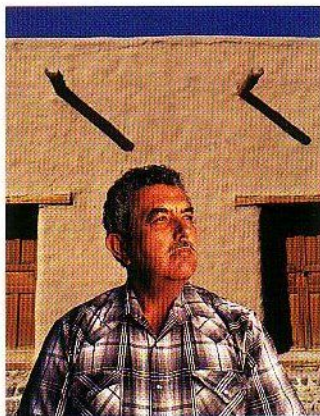
OFTEN, IT IS DIFFICULT to say where a journey begins. Swan tells her story as one of chance encounters, epiphanies, and well-phrased remarks, a personal rhetoric that veils her determination and a sturdy inner compass. Her attraction to exotic places and different people probably began when she was a child. She was born in Belgium with American citizenship. Her mother was Belgian-Dutch, a member of the "*petite noblesse*," according to Swan. "So many people in Europe have titles," she remarks dismissively. "We were low-echelon nobility. The lowest. The title was in Dutch. I don't know how you say it in English. An earl or something." Her father was American.

Within the first 10 years of her life, she made 16 transatlantic voyages. Her father died, and she was living in Paris with her mother and her mother's lover when the American consul warned that Germany was going to invade France the following spring. "My future stepfather decided that we should go to Argentina because he liked to eat beefsteaks, ride horses, and speak Spanish," Swan says. "I was nine years old, and I thought that was brilliant."

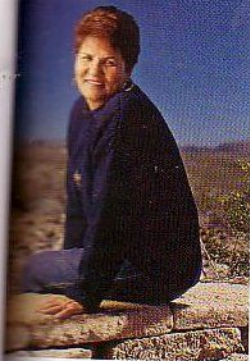
Instead they went to the Belgian Congo, where her maternal grandparents were on safari for a year and her uncle owned a tea and coffee plantation. "My stepfather ran a daily newspaper in Elisabethville, now Lubumbashi, and my mother worked in a doctor's office and translated articles from American magazines," she recalls. "I went to a Belgian government school where I was the only American and only Episcopalian. I grew up speaking English and French. Until I left the Congo, I had adopted the attitude that the natives were children. But when I left, I had a big emotional change. I was totally bereaved—for the vegetation, the air. Africans marked me profoundly."

She married, at 20, an American engineer named Swan, had two children, and divorced. A young, single mother, she was living in New York and working at *Fortune* magazine as a publicist when she met two people, John and Dominique de Menil, who would have a substantial effect upon her. A friend had suggested that she look them up while on a business trip to Houston in 1964. The de Menils had moved from Paris to Houston at the end of World War II to help establish the American branch of Schlumberger, Ltd., the international oil-field-service company founded in 1934 in France. Dominique de Menil's father, a scientist, invented the technology that made Schlumberger a corporate success. The de Menils were an attractive couple: intellectual, passionate, urbane. They used their fortune to collect art and to enrich the cultural life of their adopted city and indeed would become the most important collectors in the Southwest.

The de Menils' house in River Oaks, Houston's most exclusive neighborhood, functioned somewhat like a foreign embassy. It was where the couple received dignitaries, cultural emissaries,

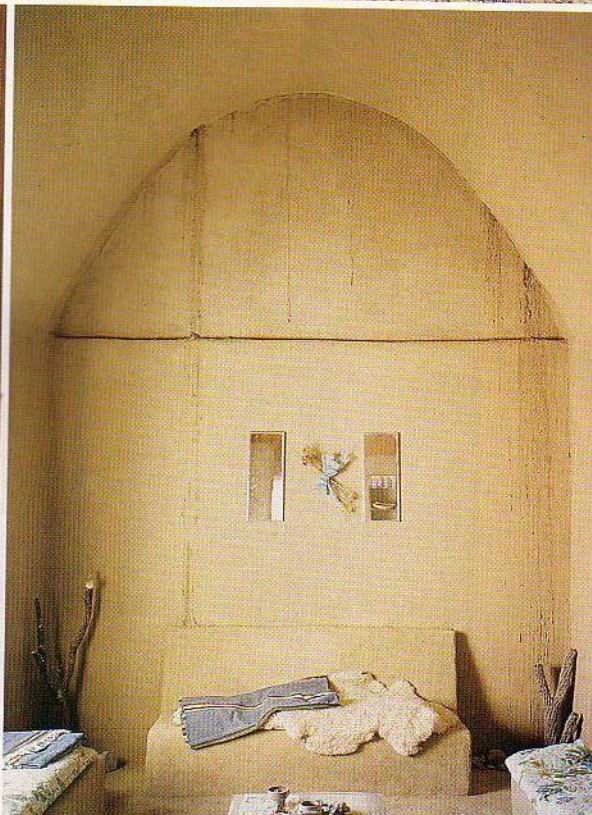
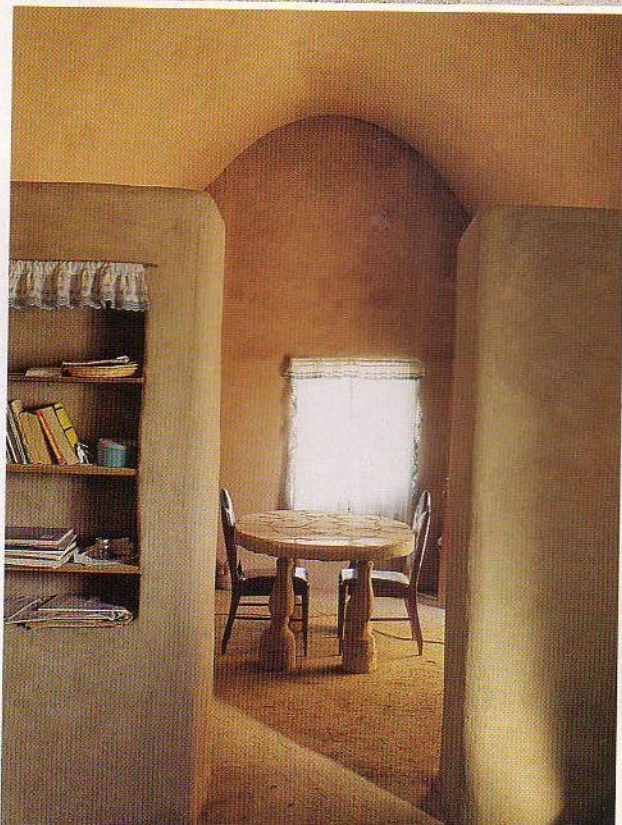
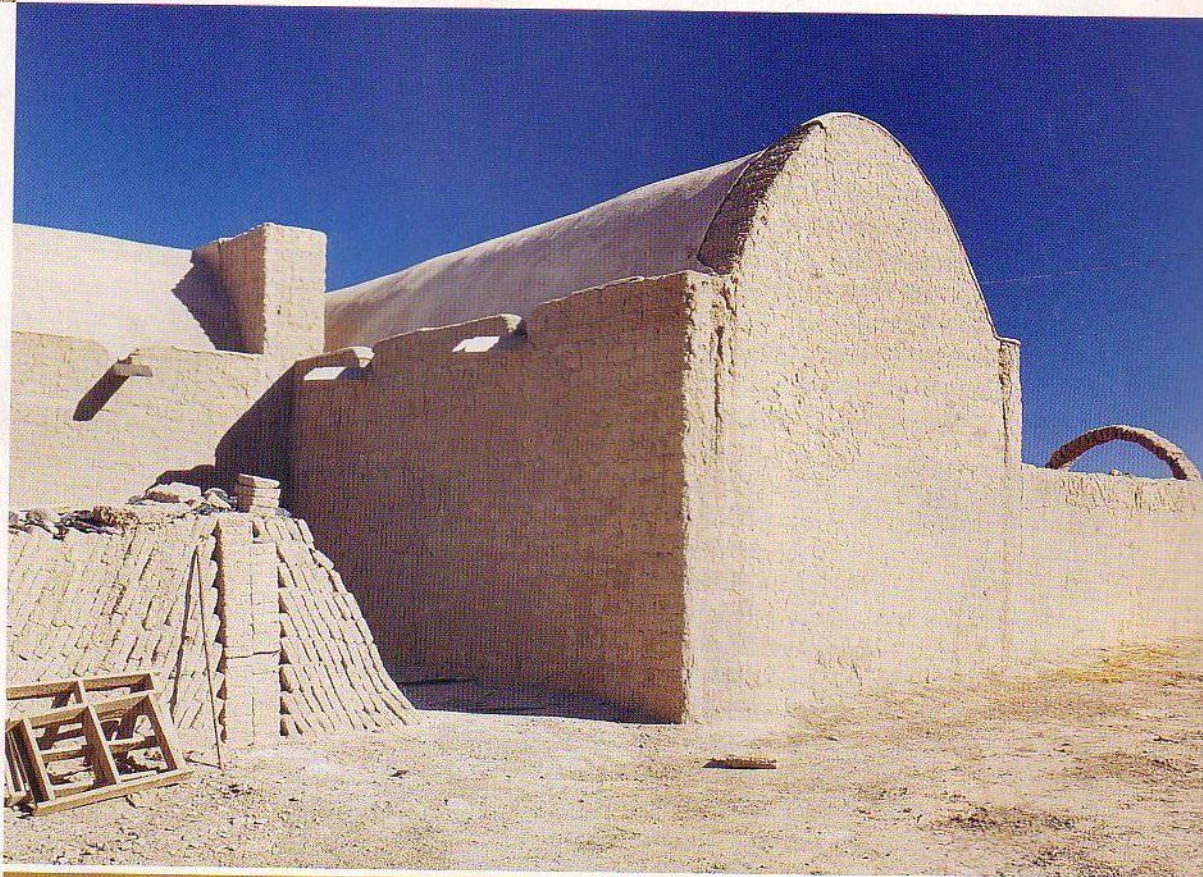


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Daniel Camacho was so taken by adobe that he used it to make his furniture.

Swan's first adobe revival house, right, belongs to Daniel Camacho, opposite below, who volunteered to keep it open as a prototype. Maria Jesus Jimenez, above, oversaw its construction. Gilberto Velasco, opposite center, curator at Fort Leaton, introduced Simone Swan to adobe buildings in southwest Texas.



and businessmen and where they promoted cultural events and political ideas. It was a different world from what was found in other Houston houses; it was a place where people literally spoke a different language: French. Luckily for Swan, she spoke the language. When she arrived, she was greeted by John de Menil, a slight, balding man in his early 60s. "In the entrance hall, I noticed a painting by [the Belgian surrealist René] Magritte and two pieces of African sculpture," Swan recalls. "When I stopped to sniff the carved wood, he demanded to know, 'Why are you smelling my sculpture?' 'Because they retain the smoke from their village,' I explained. 'The perfume brings me right back to Africa, where I grew up.' Then I told him that I had seen the first Magritte show in Brussels when I was a teenager and that I had been strongly affected."

Swan now describes John de Menil as her spiritual father. She met Dominique de Menil two weeks later in New York and, as a result of that meeting, left *Fortune* to start a public relations company that represented academic and arts organizations. The de Menils were her first and main clients, and in 1972, when John de Menil was dying, she became the executive vice president of the Menil Foundation.

The de Menils were unusual philanthropists in that they operated on a very high level in several realms—art, architecture, religion, and politics. They were the first members of the Houston establishment to stand up against racism. John de Menil, in particular, had an expansive and infectious spirit. He believed one could change the world and had the ability to pull those around him into the fray. He left an indelible mark on Simone Swan.

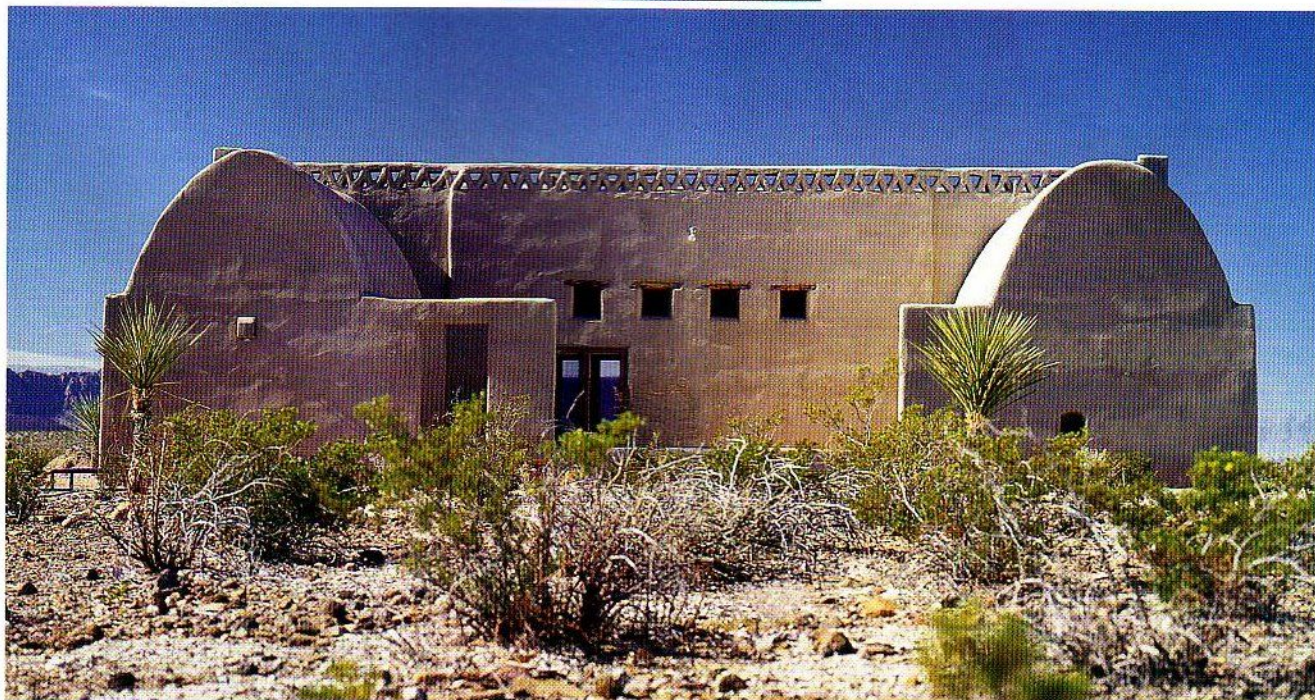
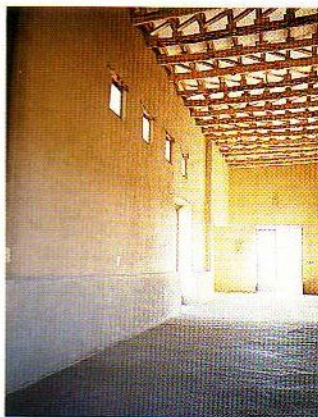
An associate from that phase of Swan's life describes her as someone who "wanted to do good deeds for terrestrial reasons. She was very attractive, but there was always an ambiguity about her, of who she was and what she

was up to. Was she Belgian, or American, or French? No one was ever quite sure, and there was an alleged connection to Queen Victoria. The ambiguity was deliberate. She allowed you to think that there might have been complexities that might or might not have been there. The reason people paid attention was because of her connection to John de Menil. After his death, she was aching to find another mentor."

The great appeal of Hassan Fathy to Swan was that he combined aesthetics and good works. An aristocrat, Fathy was an adult before he visited his family's farms in Egypt and saw the squalor that the peasants lived in. Rather than turn away in disgust or blame the peasants for their misery, he began to question why they were so demoralized and so cut off from their traditions. He began to investigate indigenous architecture that used mud bricks to make vaults and arches. In 1945, the Department of Antiquities hired him to relocate and rebuild a village situated on the Tombs of the Nobles outside Luxor, where the villagers were making a living by stealing and selling artifacts. The new village was never completed, sabotaged by both government

bureaucrats and the villagers themselves, but Fathy's book about the project, *Architecture for the Poor*, established his international reputation. The book has the allure and charm of a completely rationalized world. It is to architecture what Summerhill, the British school for children based on ideals of freedom and self-determination, was to education. Life is not as futile as we imagine; solutions, if we are willing to listen to ourselves, are inherent in human nature. Through his buildings, Fathy attempted not only to provide shelter but also to solve problems of employment and health.

Swan's house, below, is an H in plan, with a beamed-ceiling cross room separating vaulted wings.



Adobe awakening Simone Swan is only one of many people in the Southwest working to revive the use of adobe. Paul G. McHenry, director of the Earth Building Foundation in Albuquerque, N.M., has been designing in and lecturing about the material for 40 years. McHenry says that adobe has an image of poverty that is changing rapidly. Professionals in both Mexico and the United States are showing a renewed interest. Poor people in New Mexico have always used adobe when they built their own houses. In Santa Fe, N.M., the architects William Lumpkins and John Gaw Meem designed adobe houses for the artistic rich.

"Before World War II," says McHenry, "adobe was fairly common in this country. It was always considered a second choice, but architects and builders were familiar with it. In the 1930s, the WPA built 45 adobe houses for migrant workers at Bosque Farms, N.M., and 42 are still standing. In 1941, the people of Anthony, N.M., needed an elementary school and didn't have much money. They built a whale of a school with adobe. The government was encouraging that sort of thing, and the Farm Home Administration used rammed earth—wall sections, constructed on-site, of compacted mud and a small amount of concrete—to build housing in Gardendale, Ala.

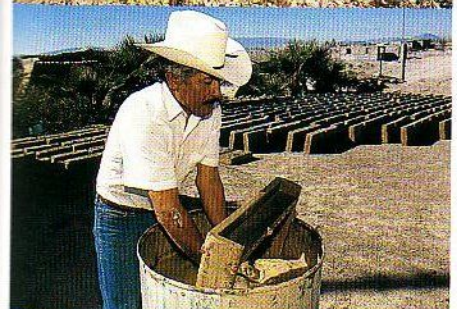
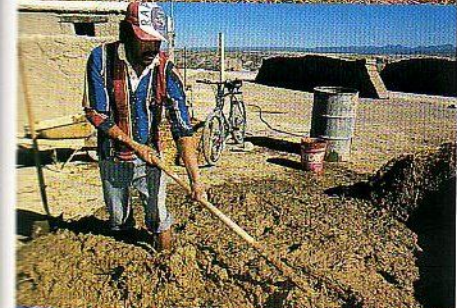
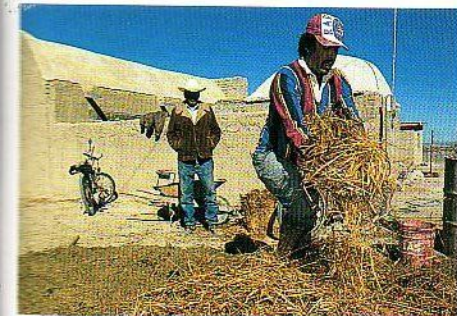
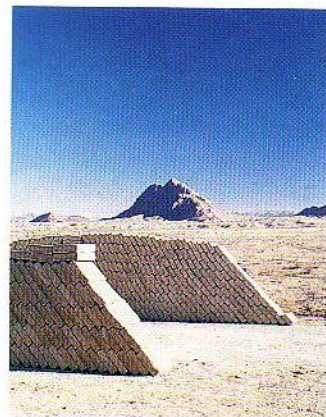
"Then, with the war, all nondefense building came to a halt, and afterward we had prosperity and a flood of new materials. Since then an entire generation of architects, engineers, and contractors grew up and retired without knowing about adobe. There was no money in adobe, so the banks weren't interested. No one was selling or promoting it. People forgot about it."

The irony (one of several) is that most of the building being done today in adobe is for the rich. Swan is one of the few adobe adherents focusing on low-income housing.

Indeed, it might appear that Swan is on a quixotic journey until one talks to the people she has worked with and people familiar with her project. Then it seems that adobe is an idea waiting for expression. "It's all been thought of before," says Michael Kovacs, Presidio's city manager. "There just hasn't been anyone to push it through. People here love adobe. If they could get it, they would do it."

Demetrio Jimenez, executive director of the Greater El Paso Housing Development Corp., says that Swan's ideas would work well for sweat-equity housing programs. "All that's needed is some sort of education as well as some seed money."

Last spring, a group from the U.S. Department of Agriculture's rural development division visited a house Swan was building. Swan intends to apply for a USDA grant to build low-income housing and hopes that she can use her house as a model for the application, demonstrating the structural soundness of her construction techniques. One problem is that the USDA might follow HUD guidelines requiring a test of every 10,000th brick—feasible in a factory but unlikely for a Daniel Camacho making his own adobes. Nevertheless, Daila McNally, a USDA community development specialist, says she keeps talking about Swan's project because there are so many people who would like the houses. ■



He was willing to consider every aspect of the villagers' lives and was able to solve problems by returning to the past, discovering what was useful in the indigenous architecture.

Swan first learned of Fathy in 1972 at a dinner party in Paris. When she read *Architecture for the Poor* in 1973, she says, she was blown away. "I finally wrote to Fathy in 1976 telling him of my interest," Swan says. "And when he wrote back, he addressed me as Ms. Swan, and that impressed me. After all, the term wasn't commonly used then, not even in the United States. He ended the letter, 'I open my country and my heart to you.' Of course I dropped everything and went on a leave of absence."

Her first intention was to write a book. She read Fathy's papers and visited his buildings. On a second extended visit to Egypt, she helped him translate into English stories he had written in Arabic and French. After Fathy's death in 1989, Swan organized a memorial service for him at the Cathedral Church of St. John the Divine in New York City. "I had an epiphany during the service," Swan says. "I realized that everybody is talking about Fathy, writing books about him, and making films. But nobody is working with the poor according to his methods. That was when I knew what I should do."

PRESIDIO IS LOCATED on the northern edge of the Chihuahua Desert. It is a beautiful and hostile landscape of cactus, red rocky hills, small whirlwinds called dust devils, rattlesnakes, and distant mountain peaks. It is one of the hottest places in the United States. In the summer, triple-digit temperatures are the norm, and year-round the town has a stunned, desolate feeling, as if people have learned to avoid the outdoors. Driving in from the north, you notice a scattering of prefab housing, but it seems as if Presidio, like some desert mirage, never really materializes. Beyond the outskirts, there's a very short main street leading to the International Bridge. And that's all there is. The official population is 5,000, but many of those people live across the border in Ojinaga—a more substantial place of 35,000—and maintain what is locally known as a post office residence to qualify for food stamps and other welfare benefits. In Presidio, 80 percent of the town is Hispanic, more than half of the residents don't speak English, and there is a 30 percent unemployment rate. The closest large city is Chihuahua, 140 miles south of the border. In Presidio, there isn't a town square, movie theater, bowling alley, or pool hall. At night, people watch television or listen to the coyotes howl.

Swan returned to Presidio just after Thanksgiving in 1991. She bought a pair of coveralls and went to work making adobe bricks at Fort Leaton. A small woman, she wasn't strong enough to lift a shovel filled with mud, but she was able to mold the adobes and help clean them after they were dry. She made adobes from eight in the morning until five in the afternoon. With the help of Velasco, she arranged to lodge in the home of the school librarian and set about meeting the local adobe artisans, or *adoberos*.

"I started telling everyone about domes and vaults, and at the end of my five-week stay, I was asked to give a demonstration and make a vault," Swan recalls. "From the beginning it was stipu-

lated that the vault had to be temporary because it was on state land. We invited all of the local *adoberos* from both sides of the border, and they kept kibitzing, telling me they didn't do it this way, until I finally had to tell them to just be quiet and let me do it. We built at a 7-10 scale, two low walls and a vault that was so strong it not only withstood a 22-inch rain that fell in January 1992, they had to use sledgehammers to take it down. It didn't budge."

Swan went back to New York and started working on a housing proposal to send to foundations and government organizations. Presidio, in many ways, seemed perfect for the sort of project she had in mind. First, there was a local tradition of building with adobe that only needed to be revived. Driving around that area, one constantly sees adobe structures, many of them still in use and some of them substantial. The Presidio City Hall has adobe walls three feet thick.

Presidio also has a severe shortage of low-income housing, which is symptomatic of a larger and growing problem predicted by the U.S. Census Bureau—that the population along the border will increase by more than 50 percent between 1990 and 2010.

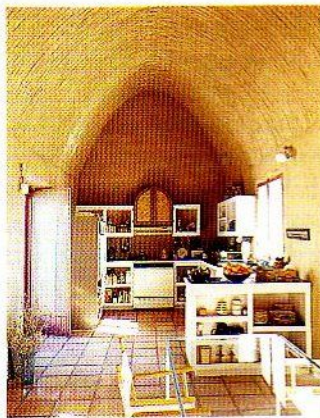
In Presidio and elsewhere on the border, many poor people build their own houses. They buy land in *colonias* through contracts for deed, an onerous arrangement by which they accrue no equity until they have made the last payment and are subject to losing everything should they default on any single payment. They buy a few cement blocks at a time, and when they have finally put up four walls, they wait years—all the while paying rent—until they can save enough money to put a roof over their heads. They are people who would benefit from Fathy's building techniques, people accustomed to operating outside the traditional cash economy.

Moreover, Presidio's arid climate, with wide swings in temperature from day to night, is suitable to adobe. Adobe houses soak up the sun's heat during the day and slowly release it at night, and by the same process hold the night's chill through much of the day. Adobe walls that are protected by deep overhangs will survive in almost any climate, but adobe vaults and domes are not recommended in areas where the annual rainfall exceeds 10 to 12 inches.

In August 1993, Swan returned to Presidio for five months. She rented a house and started doing research on building costs for low-income adobe housing. "I wrote tons of letters to foundations and government agencies," she says. "Perhaps I'm not very good at this sort of thing, but it took me months to get building regulations from HUD. I couldn't figure out what the next step would be until my friend, Enrique Madrid, took me to a political meeting in one of the *colonias* on the edge of Ojinaga. He explained what I was trying to do, and an extraordinary man, Daniel Camacho, stood up and said that he owned land and that if I would build him a house, he would keep it open to show as a prototype of our work."

In 1994, Swan formed the Swan Group and, with a \$20,000

Continued on page 104



Inside Swan's house, vaulted ceilings and tile floors in the kitchen, below, and bedroom, right

*Rather than let her team of adoberos disband, she
started a house for herself where they could use
Fathy's techniques and experiment
with adobe and mud plasters.*

