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Homes sweet homes: U. architecture students provide houses for Navajos through design/build projects

By Susan Whitney

BLUFF, San Juan County — It's the middle of July and 100 degrees here at the edge of the Navajo Reservation. This may be the last day the University of Utah architecture students will be laboring in the desert heat. They're about to finish the house they've been building. Today they are patching, staining and sealing the concrete floors. They've got their CD player cranked up, and they're trying to stay out of each other's way as they work as quickly as they can. The 10 students spent fall semester drawing house plans. Construction was supposed to be finished during the second semester, by the end of May. The fact that the students are a bit late doesn't make them any less thrilled about the way the home has turned out.

It is the fourth house to be built by students and donated to Navajo families. The students work under the direction of their professor, [Hank Louis](#), in conjunction with Louis's nonprofit, DesignBuildBLUFF. The first house was built with donations. A HUD grant covered the next three. But the grant ran out this year. So Louis is looking for a different design-build project for 2007-08, while he tries to raise money for more Navajo homes. He's hoping U. students can spend the coming year designing and building a performing arts space in Bluff. Meanwhile, student architect Chris Brown says this final HUD house came together amazingly well. "Especially for having 10 people who all wanted their ideas included. It could have ended up being less than cohesive."

Brown describes the design of the 1,300-square-foot solar home. It was based on a Hogan, he explains. The west walls curve around an outdoor fire pit. The design honors Navajos in other ways, as well: If you drew four lines from the center of the firepit to the four sacred mountains of the Navajo, you would see that the home's rooms align with those mountains. Then, too, the right angles along the roof echo the patterns found on Navajo rugs and baskets, Brown explains. Standing outside the home, you notice the shininess of its steel walls. The steel will rust eventually, echoing the red of the sandstone cliffs behind the house. Mitch McComb, DesignBuildBLUFF's construction supervisor, says rusted steel is increasingly popular in resort towns such as Telluride. Inside, other artistic details present themselves: Niches in the brick walls. Pale recycled wood in the kitchen cabinets. A shower surrounded by steel and stone. Smooth river rocks in the Trombe wall, a sun-facing thermal mass that will help to heat the master bedroom during winter.

The windows beg to be noticed. Each has been carefully placed to afford a slightly different view — of the bluffs or of farmers' fields or of long stretches of red earth.

At mid-morning, a man named Baxter Benally emerges from a small blue house across the way and comes over to shake hands with the students. Benally has heard this may be their last day working on the house. He urges each of them to come back for a visit.

Benally and his wife, Dora, were the ones selected by the students to be the recipients of this home. The students talked to the Benallys about their needs and presented them with three designs. The Benallys chose this one. Once they started the construction, the students modified their design. For example, they realized there wasn't enough cross ventilation, so they cut holes in the wall between the bedroom and hall and installed little shutters. Architecture student Lindsay Holloman says there is a huge difference between drawing and building. She'd never built before she entered architecture school and now, she says, she'd never want to draw a house she couldn't work on later.

The Benallys helped with the construction, tidying up the site every evening and carrying the bricks as fast as the students could form them. Ultimately, 6,000 adobe bricks were required for the walls. Each brick weighs 30 pounds. As the Benallys and the students worked side by side, they became fond of each other. Dora made fry bread for the students. Baxter taught them some Navajo words. Today, when he invites them, the students readily promise to come visit, after the Benallys have moved in. The students say they are fairly sure Baxter will join Dora in their new home, even though Baxter jokes about being fine where he is. And sometimes he talks about having a mortgage, and he doesn't sound like he is joking at all. He sounds hesitant, even suspicious. Having lived in Bluff for most of the last year, having gotten to know a few Navajos and seen some of their frustrations, Brown can understand Benally's skepticism. But Brown also believes people eventually realize that there is no catch with the DesignBuildBLUFF program. No one will kick them out of their house if they don't come up with \$80 per month, or whatever amount HUD will suggest. Louis says that when HUD officials gave the grant, they didn't understand the way land is handled on the reservation. Sites stay within families. No one can sell these homes on the open market, Louis explains, so a mortgage makes no sense to him or, he imagines, to the Navajos.

People from the two cultures are gradually coming to understand each other. And the DesignBuildBLUFF collaboration will become more well-known soon, when Dwell magazine includes the Rosie Joe house in its "living off the grid" issue. Rosie Joe's house was the first one the U. students built on the reservation, back in 2004. The guiding principle of Joe's house was the butterfly roof for water collection, Louis explains. The large unattached roof also shades the home's real roof and keeps the house cool. If you visit Joe on a hot summer afternoon, you'll find her sitting in comfort at a loom in the corner of her living room. Joe loves her 1,200-square-foot home, with its exposed pipes and unadorned concrete. She also loves the fact that the students who built it regularly come back to check on her, even though they've long since graduated and gone on with their lives. This year, one of her straw-bale walls sagged, and the former students replaced it. McComb, who was one of the original group that built her house, is now in charge of maintaining all the homes. He came by recently and replaced the water pump on her cistern.

Joe says she loves living in this peaceful place, a half mile from the nearest telephone, in a home made of earth. And if you visit the third home the students built, you'll find Caroline Lameman is equally pleased with her house and with the ongoing maintenance.

Because she lived in Denver for years before moving back to the reservation, Lameman is used to conversing with Anglos. Louis said she was not shy about sharing her dreams with the students who designed her home. As a result she, too, has a Hogan shape in half her house — as well as a small library nook and a window seat and an entryway made of rock. Unfortunately, she does not have electricity and her house was not designed to be off the grid. Lameman doesn't know whether Rocky Mountain Power or the Navajo Nation is responsible for the hold-up. And so if you drop by her house, you'll find she's currently staying with her elderly parents, who live a few hundred yards from her home in a prefabricated house with air conditioning. Louis says he's sure she'll get electricity. Lameman understands the importance of reminding the government. "It's no different than our society," Louis says. "If you go to the meetings every week you'll get taken care of before the people who don't go."

Design/build programs were not at all common when Louis started the one at the U. seven years ago. Although they are becoming popular, they are still a rarity in architecture schools, he says. As for funding, most design/build programs are like the one at Yale, where the college sells the house rather than giving it away. Louis dreams of being given a \$5 million grant; then he could run his program off the interest. (Staff salaries, building materials and equipment rental, the mortgage on the students' residence in Bluff, transportation expenses and the like come to about \$250,000 a year.) He likes building on the reservation because it is far enough away that the students can't go home every time they get a cold, he says. Also, he adds, on the reservation you can try new techniques without being hassled by building inspectors.

Louis would like to develop several prototype homes so that sustainable houses might someday be seen all over the reservation. As it is now, he says, every year they make one family happy and 500 others jealous. Drop by the Brian and Rebecca Johnson house, the second home built by the U. students on the reservation, and you'll see that no one ever moved into it. The house is not hooked up to the electricity the family was promised, which may be why they haven't moved in, says DesignBuildBLUFF spokeswoman Karena Rogers. (The Deseret Morning News was unable to contact the Johnsons.)

Architecture student Lindsay Holloman says it is not easy to decide who gets a home. Last fall she and her fellow design/build students came to the reservation and interviewed families. Holloman says, "It was kind of sad. Everyone had a need." McComb says his group chose Joe, the first person to get one of their homes, because she was a single mother who worked two jobs and was "deserving," he says. But over the years, working on the reservation, he's come to think everyone is equally deserving. McComb says the houses are gifts, yes, but there are strings attached. For one thing, solar panels and other technologies may be impossible for the homes' recipients to maintain. Also, he notes, not everyone shares the students' sense of aesthetics. "We do these funky, whacked out, experimental things." McComb figures some people see the exposed pipes, rusted steel, or an un-rooted roof and say they'd rather have the pre-fab house the federal government provides. Of course, the Benallys say they'd been on a waiting list for government housing for more than 30 years when they were selected for a DesignBuild house.

As it turns out, Dora Benally also works two jobs, but if you can catch her on a break at her day job at the Recapture Lodge, she'll sit for a second and talk about the application process. She knew she was a finalist for a home, she says, but she didn't know she'd been chosen until all 10 students drove down from Salt Lake and surprised her at work. She cried when they told her she'd won, she says. When she called her kids, they didn't believe it. She told them to look it up on the Internet. Soon her city-dwelling children were in the habit of checking the U. students' blog, watching as their parents' house got built.

If pressed, Dora Benally will say there is something she will miss about her old house. It has only two rooms, so when she is in one room and she can't find something, she knows it has to be in the other room. With this huge new house, she says, she'll have a harder time finding stuff. But she knows she is going to love living in the new place. And so will her husband, she says. Baxter recently told her he couldn't believe he'd lived his entire life without running water and that he was about to get it, now, when he is 60 years old.

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The entryway of Dora and Baxter Benally's house faces east, in keeping with Navajo tradition. Tires reclaimed from the landfill make a retaining wall. Credit: *Camille Cook, DesignBuildBLUFF*



Dora Benally gazes at the ceiling of her new home. The Benallys' children and siblings came to the dedication ceremony.

Credit: *Jennifer Ackerman, Deseret Morning News*



U. student Lindsay Holloman sprays sealant on the concrete floor of the Benally house. The architecture students live in Bluff for weeks at a time while they're building a home.

Credit: *Jennifer Ackerman, Deseret Morning News*



The Rosie Joe house is so energy-efficient that she uses her wood-burning stove for only a few hours in the morning during winter.

Credit: *Jennifer Ackerman, Deseret Morning News*



Mitch McComb took part in the U.'s design/build program when he was a student and is now the construction supervisor and lives in Bluff. He checks the kitchen counter in the Benally house.

Credit: *Jennifer Ackerman, Deseret Morning News*

