



On the 108-acre Pinoleville Rancheria in Ukiah, California, two hours north of San Francisco, Nathan Rich showed me around the new home he planned to move into with his three kids. Except for the nearly identical one next door, the home was unlike any other on the reservation-or anywhere else in town, for that matter. Its walls were made of earthen plaster and cob (an adobe-like mixture of clay, sand, straw and water) and insulated with 18-inch—thick bales of straw. Its floors were concrete and its paints clay-based. Its roof had solar panels and a rainwater catchment system. Its indoor plumbing was designed to utilize grey-water (recycled water from appliances and fixtures), and its heating comes from a ground-sourced heat-pump system, which harnesses the Earth’s natural warmth.

Both of these 2,300-square-foot prototypes, each with three bedrooms and two bathrooms, were the result of more than five years of work by the Pinoleville Pomo Nation. Tribal member were integral to the process, including providing labor for construction-Rich helped build his future home, and many people lent a hand, either directly or indirectly.

Over the past five years, interest in sustainable design and construction has proliferated throughout Indian country, from Alaska to Arizona. Tribes that were among the United States’ original green builders are now working to overcome a 100-plus-year-legacy of substandard housing on reservations through healthy, efficient natural, climate-appropriate and culturally sensitive housing. Motivated by energy savings, indoor-air-quality improvements, tribal autonomy, sustainability and a deep connection with the Earth, many tribes have begun to view green-building as a link to their past and a key to their future.

The movement has garnered support of federal programs, including the U.S. Environmental protection Agency’s Tribal Green Building Initiative, which offers technical assistance to tribes, and the Department of Housing and Urban Development’s Sustainable Construction I Indian Country Small Grant Program, which offers both guidance and funding opportunities. “Nobody wants to go back to living in a tipi,” says Scott Moor of Blue Star Studio, a Native-owned architectural firm. “That’s not the answer. But at the same time, we need to create space to allow indigenous populations to take a look around them and say, ‘What’s going to work for us now?’”

Contemporary green-building gets to the heart of Native culture writ large, he argues, as tribes transition toward permanent housing, return their attention to the Earth, reconnect with the past, insist upon defining themselves and their future, and the improve their economic situation through affordable homeownership and reduced energy costs. In this sense, green-building is not an end in itself, but rather a means to revitalization.

The sentiment resonates for the Pinoleville Pomo Nation, still grappling with the fallout from the federal government’s termination of the tribe in 1966, which included the loss of much of its land and an ensuing housing shortage. (Its status as a federally recognized tribe was restored in 1983.) Tribal leaders hope that the new green homes, modeled

loosely on traditional roundhouses, will provide a blueprint for 15 new healthy, water- and energy efficient residences they hope to construct 35 miles away from their reservation. Plans are also in the works to add more housing to the Rancheria in Ukiah. The two prototypes, meanwhile, will finally welcome their new residents, including Rich and his children, by the end of April. Ultimately, tribal leaders hope this spurt of home-building will lure back those forced to leave the area for other towns and cities.

Hopes for the future are also the driving force behind an innovative green-building project on South Dakota's Pine Ridge Reservation that features net-zero-energy affordable homes. "It's not just the environment that we're trying to regenerate, but also the people and the culture," explains Nick Tilsen, executive director of the Thunder Valley Community Development Corporation, the nonprofit behind the project.

The organization aims to build 30 to 40 single-family homes and a few apartment complexes and townhomes—all of whose energy needs would be met on-site on a 34 acre property at Pine Ridge called the Thunder Valley Regenerative Community. The development could provide significant support to the impoverished reservations economic recovery, Tilsen says.

With Pine Ridge's extreme climate and small per-capita incomes, reducing monthly utility bills assumes an outsized importance.

"When you reduce the utility bill, you increase their ability to pay a mortgage, which adds to economic independence," Tilsen says. In this sense, rooftop solar panels, climate-appropriate design and high-performance insulation count for much more than green-building bragging rights.