

# Kids' Korner

## Adobe Offers Solution To Housing Crisis

SKY CITY, N.M. — Brick by adobe brick, Acoma Indian workmen are rebuilding 400-year-old apartments in their ancestral pueblo atop an isolated 367-foot mesa.

Since the work began in 1982, about 100 units have been completed, says supervisor Dennis Vallo. He hopes the restored two- and three-story buildings will induce more Acoma to return to Sky City.

All roots of the word Acoma denote "a place that always was," writes historian Alan Minge. The people claim that their mesa-top home about 60 miles west of Albuquerque is the oldest continuously inhabited city in the United States. Minge says they've been there for at least 1,000 years — possibly much longer — and archeologists agree that Acoma Pueblo has been occupied at least since A.D. 1200.

### Learned From Spanish

The enduring technique of making adobe bricks in molds was introduced to the Acoma by Spanish conquistadores in the mid-1500s. Only 50 or so Acoma now live year-round in the pueblo. Their determination to preserve their ancient traditions means that they lack such amenities as electricity and running water.

Their adviser on the restoration is a white man from Albuquerque, Paul Graham McHenry Jr., an architect and builder who specializes in adobe construction and sees adobe as a solution to many of the Third World's increasingly urgent housing problems.

"The worldwide energy crisis, particularly in developing nations, must lead to the utilization of earth as a building material to meet

ever-increasing needs," McHenry wrote in a paper presented in Ankara, Turkey, last summer. "We have no other choice."

McHenry, author of several books on adobe and other earthen buildings, notes that more than half of the world's people live in houses made of earth. He traces their early development to the Middle East, where he says such structures were built as early as 8000 B.C. in the Tigris-Euphrates Valley.

He is a member of the Advisory Council of the International Foundation for Earth Construction, a three-year-old organization committed to helping solve global housing problems. An estimated 800 million units are needed to house the world's poor.

Foundation president is Eric Carlson of Closter, N.J., former chief of housing for the United Nations. "Our main interest," he says, "is in how to transfer some of this relatively simple technology to countries where there are serious housing problems."

The U.N. General Assembly has designated 1987 the International Year of Shelter for the Homeless. The foundation's activities next year will be linked to that theme.

### Examples Worldwide

The well-traveled Carlson lists widespread examples of earthen building: Grenoble, France, site of active training and research in such construction; China, where more than 30 million people dwell in caves; Colombia, where volcanic soil is proving to be an ideal material for pressed brick; and numerous other areas.

Carlson pegs much of his hope to a 55-year-old process, developed in California, to mass-produce "stabilized" bricks, waterproof and erosion-resistant, by mixing

mud with an asphalt emulsion. Building with earth "has the potential for catching on," he says.

McHenry views it as "an uphill battle," partly because of adobe's "split image of either poverty or great affluence."

Traditionally, earthen buildings have provided shelter for the world's neediest people. In the southwestern United States, adobe provided an inexpensive answer to housing needs for generations. Only in the past few decades has it become, in Carlson's words, a "chic and aesthetic building material."

President Reagan lives in an old adobe house, stucco-faced and white-painted, when he goes home to Rancho Cielo in California, U.S. Supreme Court Justice Sandra Day O'Connor used to live in an adobe house in Phoenix.

McHenry and his sons design and build everything from expensive adobe homes to shopping centers in the Albuquerque area. Adobe dominates many of the richest suburbs in New Mexico, Arizona, and California.

But McHenry emphasizes its simplicity and universality. With very little experience and equipment, anyone can make his own bricks. If he has sufficient skill and diligence, he can build a comfortable home. Thick adobe walls ensure coolness in the summer and warmth in the winter. And they are almost soundproof.

### Do-It-Yourself Adobe

In a homemade adobe house in a suburb of Santa Fe live a writer-photographer, David Noble, and his artist wife, Ruth Meria. They are members of a legion of erstwhile easterners who have fallen in love with the Southwest and moved there.



Holding an adobe brick, Dennis Vallo stands next to one of the 400-year-old apartments being rebuilt at Sky City, N.M., ancient pueblo home of the Acoma Indians. Although adobe is one of the oldest building materials, dating back 10,000 years, it still houses more than half of the world's people.

Unless they'd built it themselves, they couldn't have afforded the snug house. With a lot of trial and error along the way, they've been building it for 12 years. It began with a single room and gradually expanded to include a bedroom, a darkroom for David, a studio for Ruth, and an office, now under construction.

Last winter the couple's only

heating expense was a cord and a half of wood for their living-room stove.

"It's very straightforward and simple," Noble, a Yale-educated former French teacher, says of the adobe-building process. "It's very creative and satisfying. It feels very much like home when you build it yourself."

## COLOR THIS!

- |             |               |
|-------------|---------------|
| 1. BLACK    | 6. PEACH      |
| 2. RED      | 7. GREEN      |
| 3. YELLOW   | 8. LT. BROWN  |
| 4. BLUE     | 9. LT. BLUE   |
| 5. LT. GREY | 10. LT. GREEN |

**VOLLEYBALL:** THIS SPORT WAS INVENTED IN 1895 IN HOLYOKE, MASS. IT WAS INTRODUCED AT THE TOKYO OLYMPICS IN 1964. SINCE THIS TIME THE SPORTS MOST SUCCESSFUL TEAMS HAVE BEEN THE SOVIET MEN AND WOMEN. THE VOLLEYBALL COURT IS 59 FT. LONG BY 29½ FT. WIDE WITH A NET DIVIDING THE COURT INTO EQUAL HALVES.

