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Cover Story

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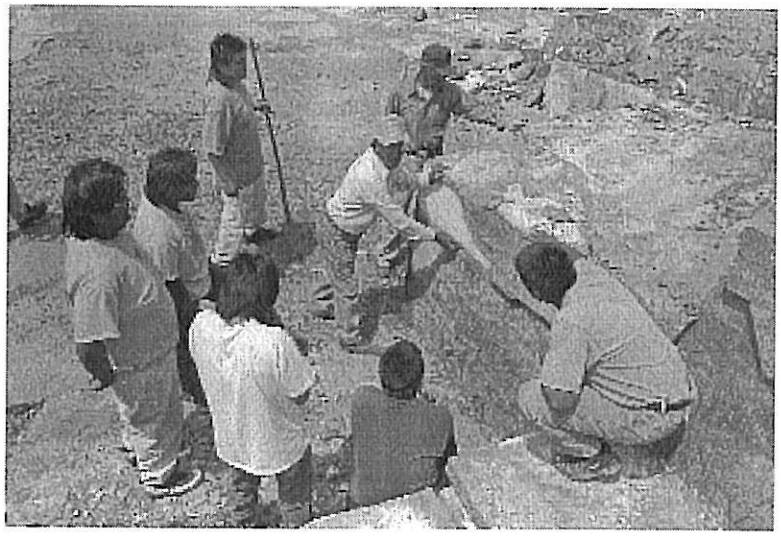
Training Youth in Vernacular Earthen Architecture and Associated Cultural Traditions

I have a greater knowledge and respect for older buildings and our community's history.

—1996 Mora Youth Training Participant

A Mora Valley youth comments on the results of this past summer's youth training program in vernacular architecture and associated cultural traditions, a training program conducted at two sites in New Mexico, a northeastern Hispanic village and the Pueblo of Zuni. The program is a private public collaboration of partners including the National Park Service National Center for Preservation Technology and Training (NCPTT), Wupatki National Monument, Aztec Ruins National Monument, Fort Union National Monument, Cornerstones Community Partnerships, Mora Valley, the Pueblo of Zuni, The Hitachi Foundation, the State Youth Conservation Corps, Native AmeriCorps, State Historic Preservation Office, and many others.



Zuni elder Wapton Toshowna instructs youth in stone quarrying. Photo by Sam Adams, courtesy Cornerstones, Santa Fe, NM.

New Mexico's rich cultural patrimony includes many distinct communities of Native American and Hispanic people who are descendants of among this country's first inhabitants. Many rich cultural traditions still live within the backdrop of distinct landscapes rich with vernacular earthen structures lining plazas and pathways. Community members are striving to preserve both their architectural and cultural heritage by preserving important building traditions begun by their ancestors.

Recognizing the importance of youth as stewards of this unique heritage, The NCPTT in 1996 awarded funding to Santa Fe based nonprofit, Cornerstones Community Partnerships, to develop a curriculum, field test and conduct a youth training program for at least 16 Native American and Hispanic youth focusing on technical preservation and associated cultural traditions important to the preservation of vernacular earthen architecture. Since 1986, Cornerstones has been working in partnership with communities to strengthen their cultural values by restoring historic buildings, encouraging traditional building practices, and developing skills and leadership among the younger generation.

Cornerstones' goals for the training program were for young adults from Zuni and Mora to learn and implement preservation activities on historic structures in the Mora Valley and at Zuni Pueblo. The approach was to involve local citizens, with facilitation by Cornerstones staff, as mentors to the youth in teaching the traditional building preservation skills for both adobe and stone.

The village of Mora and the surrounding area, as well as the Middle Village of Zuni, are both in desperate need of revitalization. Buildings that have deteriorated or abandoned altogether are crumbling annually; and as these buildings crumble, the sense of community optimism also withers. It is hoped that by involving enthusiastic young people in a process of community revitalization, young people will see the benefits of contributing to the well-being of their communities, while local citizens will appreciate and support these youth for caring, and help them embrace local cultural traditions.

At Zuni, the curriculum included teaching traditional and modern methods of stone quarrying, dressing and laying. A central educational component of this process featured the elders; prayers, offerings, and stories associated with stone, quarrying, and its relevance to the Zuni people throughout history. In total, 45 young people participated in the summer of 1996, a combination of Zuni youth, architecture students from the University of Pennsylvania and Iowa State University, and Hopi youth. They also learned about the history and traditions of architecture in New Mexico, preservation philosophies, preservation organizations in New Mexico, earth as a building material and its history and how to con-

Mora youth learns to mud plaster. Photo by Anne Rowe, courtesy Cornerstones, Santa Fe, NM.

duct condition assessments identifying deterioration problems and treatments, graphic documentation, drafting, surveying, and planning using computers. Work began, funded by ISTEA funds through the State Historic Preservation Office, on the historic Kelsey Trading Post. Participants learned how to plan and prepare scopes of work for the building and learned to reroof with wood shingles.

Some participants learned about ruins stabilization during 12 weeks of training by Exhibit Specialist Terry Morgart at Wupatki National Park. Several participants attended a two week stabilization training held at Aztec Ruins National Park through Challenge Cost Share funding involving park ruins crew mentors from Chaco Culture National Historic Site and Tumacocari.

In Mora, the curriculum included teaching traditional methods of adobe preservation, including site drainage, mud plastering, adobe wall repair and construction, metal roofing, and carpentry to eight young people. The young people assessed and documented the deterioration problems of area historic adobe buildings. Community elders taught them traditional building skills during preservation work on area historic structures. A one-day site visit to Fort Union provided a brief orientation to adobe ruins preservation work and lime plaster stabilization. AmeriCorps participants joined in a training session focusing on rehabilitation work on an historic adobe schoolhouse to serve as a community center. A University of New Mexico history professor lectured on the history of the region.

Program evaluations were conducted based on the responses to questions through a questionnaire and personal interview using the following criteria:

- improved community cohesiveness and cooperation;
- positive changes in the communities' attitudes towards youth;
- increased pride and interest in maintaining community facilities;
- enhanced youth leadership development and changes in attitude;
- increased interest in educational and career opportunities;
- expanded job opportunities in the local community;
- increased cultural understanding and pride; and
- knowledge and skill in the preservation of earthen structures.

The training evaluation report was prepared and indicated that trainees of Mora believed that they were well instructed on how to use traditional building methods and feel confident in their ability to engage in such activities now that the program has ended. Two of the trainees mud plastered their family home. Community members observed the youth becoming more responsible in their daily lives, more interested in hard work, and more concerned about the community. Staff indicated that the youth worked hard, exhibited pride in their accomplishments, and seemed to enjoy making a difference in the community.

The report also indicated that trainees at the Zuni site expressed satisfaction towards the quality of the training, and believe that they have learned skills which they will use personally and professionally throughout their lives. They learned about the Zuni tradition of stonework, developed greater appreciation of the skills involved, and seem ambitious about wanting to restore the entire community.

The program had a significant impact on how the youth view their respective cultures. When asked about how their attitudes have changed by participating in the program, one Mora youth responded: "(The program) has opened my eyes because I have never been the type to like history but now I have a greater appreciation for it." A Zuni youth responded: "Participation in the program made me look at my culture in a different way. It made me realize that our culture needs to be looked at more as having strengths; we need to teach our youngest more about the culture."

One goal of the youth training program is to prepare trainees for future local economic opportunities. While the training never guarantees participants employment upon completion, Cornerstones staff and administrators, nevertheless, want to link the trainees with potential future educational, job training or other career development opportunities available; this will ensure proper future program recruitment and provide credibility in the communities being served.

In Mora, participants believe that the training is preparing them for future work opportuni-

ties, though only one individual has been able to secure related employment since the training program ended. Trainees reflect, "I had no prior work experience, so it has helped me." In Zuni, one youth is a program administration intern at Cornerstones. Another is now a housing program supervisor. Many are also now keenly aware that the National Park Service offers career development opportunities. While future opportunities appear to be based on the program's success, many community members and participants observed that an important dimension of the program is that it builds confidence and a positive and responsible work ethic, skills which will inevitably lead to employment opportunities.

Cornerstones views its youth training programs as pre-apprenticeship programs which orient young people to future career development opportunities. Results of these two programs will be incorporated into the future development of programs at new sites, with a goal of adding one new training site per year. The Pueblo of Zuni is in the process of incorporating the Cornerstones mentorship youth training program into their programs. The Mora community is continuing its youth training structures program this summer in collaboration with Cornerstones.

If New Mexico's rural buildings are to be preserved, and saved from apparent extinction, it is vital that rapidly dying traditional and culturally-derived building skills be passed along to future generations. As the elders in a given community grow older, the risk is high that the knowledge they have grown up with will die along with them if it is not shared with youth. The youth training program is not only important to a young person's future career development, it is a key component of a community's efforts to maintain and preserve important facilities, and the cultures and traditions these community symbols reflect.

Barbara Zook, a former National Park Service historical architect, is Program Director of Cornerstones Community Partnerships, formerly the "Churches: Symbols of Community Project of the New Mexico Community Foundation." Since 1986, over 150 communities have received technical assistance about how to repair vernacular earthen buildings, and 41 communities have participated in Cornerstones assisted preservation projects.

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Mark Starr

Half-Hull Ship Models
Unlocking Historic Ship Designs From Our Past

Bob Allingham measuring a model from the collection at Mystic Seaport Museum. The photo shows the Faro Digital Arm and the laptop computer used to both run the machine, and to process the information gathered. The laptop makes the system more portable than would be the case with a full desktop computer.

Half-hull ship models are wooden models used by ship builders of the past to design in three dimensions the hull forms they would build. They can be found in great numbers spread throughout both maritime museums and private collections in the United States. Although these models make attractive wall hangings, they also represent a vast and largely untapped record of the history of American ship design over the past few hundred years. Given that most of these ships and their documentation are now lost, these models often represent our last ties to early designs. Their three-dimensional wooden format, however, keeps the information they contain unavailable to naval architects, scholars and boat or model builders. To make the information they represent useful once again, the models need to be re-measured and re-drawn. Once they are converted back into lines plans, the information can more easily be compared and disseminated.

The stumbling block to converting wooden models back into paper plans has usually been manpower. The process of manually measuring and drawing half-models is typically very time consuming, and so these projects are not often undertaken. Because of this problem of time, and therefore expense, Mystic Seaport Museum, in association with the Smithsonian Institute and the Hart Nautical Museum at the Massachusetts Institute of Technology, began looking for alternate methods