

# THE NAVAJOS AS A DEVELOPING NATION: SEEKING AN AUTHENTIC ARCHITECTURE FOR A RURAL CULTURAL LANDSCAPE

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## ABSTRACT

Navajos, and Native Americans in general, are among the most deprived and ignored peoples in all of rural America. The great traditions and undeniable authenticity of their way of life present challenging problems of environmental design as new facilities for education, health care, and commerce are developed. Through a study of the process of designing two Navajo schools, possibilities for the facilitation of culturally responsible design procedures and cross-linkages between the study of environmental design in Native American communities and the rural third world are explored.

## INTRODUCTION

We attain to dwelling, so it seems, only by means of building. The latter, building, has the former, dwelling, as its goal. (Heidegger 1971: 145)

In beauty may we dwell. (Navajo prayer)

For Navajo people the inherence of dwelling in building is obvious--building traditional structures is a normal part of life--even the characteristics and practices of construction are specified in Navajo myth. How then to approach the construction of facilities for which there is no precedent within the culture? How might Navajos go about building schools, hospitals, and places for commerce?

The Navajo Indian reservation is the largest in the United States. Its area is comparable to that of New England, with a population less than that of New Haven, Connecticut. A traditional society confronting modernization, it is not so much a rural region as it is a separate nation, embedded geographically in its conqueror. Thus the issues of modernization and rural development confronted by the Navajo have more in common with those of small third world nations than they do with other rural regions of the United States. Health, education, and economic development are tragically backward, yet tribal traditions are proudly maintained.

The aims of this paper are threefold: (1) to report on a series of efforts to develop culturally responsible designs for schools in two Navajo communities which commenced at MIT twenty years ago, (2) to investigate the possible areas of reciprocal influence between the third world development efforts and

those on American Indian reservations, and (3) to consider the implications of these findings to theories of regional architecture.

#### THE MIT PROJECT AT ROUGH ROCK: CONTEXT

In the 60's the federal Bureau of Indian Affairs (BIA) embarked upon a large building program to provide more schools on the Indian reservations. The BIA's form of education was grounded historically in a deep suspicion of Indian culture and had a record of overt attempts to undermine and "wean" children away from traditional language and values. The prevalence of the boarding school, promoted for "efficiency" and cost reasons was hated by most Indian families for the disruption it caused to traditional life. The schools reflected this educational intent, appearing on the landscape not so much as local institutions, but as military encampments surrounded by barbed wire (to keep range animals out) and marked by large water tanks. These schools reflected the values of their makers--bureaucratic institutional values--not the values of the people educated. (See Figure 3. Modular building. 1981.) They were all planned with the best of intentions from one office in Albuquerque. The logic of the system overwhelmed the human logic of traditional people.

These projects helped to create tremendous pressure for a greater degree of autonomy for Indian communities. Means were explored by which Indian communities could organize local corporations to operate their own schools under contract to the Federal Government. (This movement would culminate in Public Law 93-638, the Indian Self Determination Act of 1975).

In the early 70's under this impetus, three contract schools were started, Ramah in New Mexico, Rough Rock, and Rock Point in Arizona. Rough Rock was located in an extremely traditional area at the heart of the reservation and initially set up in a newly completed BIA boarding school which had not yet opened, so there was a chance for a clean start.

Chester Sprague, professor of architecture at MIT, had become increasingly interested in the environmental design problems of Native American and Indian communities, completing a major study of village form for Alaskan Native settlements, and a project for culturally adaptable housing for the Blackfeet tribe in Browning, Montana. This interest grew out of his prior exposure to the cultures of the Southwest and was influenced by the cultural geography of J. B. Jackson.

The Director of the Rough Rock Demonstration School, Dillon Platero, saw in both the work of Chester Sprague and his institutional affiliation the opportunity to create a new physical paradigm for Indian educational facilities. He therefore entered into a contract with MIT to enable Chester Sprague to provide this assistance. I was privileged to be the Project Coordinator of this work.

Chester Sprague at once set out an ambitious program of research commencing with a seminar on cultural modernization and Indian education involving the participation of group of Indian educators at the Harvard Graduate School of Education and the anthropologist Louise Lamphere. We learned of the strong matrilineal structure of Navajo society, its intricate symbolism, influenced in part by that of the Pueblo, and particular customs, such as a strong aversion to the presence of death, exemplified by the prohibition of continued use of a hogan were a death occurred. We also learned of the Navajo concept of land use in which all land is held in common, with occupation rights established by use, and the traditional aversion to fencing as a definitive and unambiguous "anglo" statement of property use rights. We further learned of the adaptive nature of Navajo culture, which is considered by many anthropologists to have consistently incorporated elements of surrounding cultures without losing its own core, a quality which would have been appreciated by Paul Ricoeur:

...only a living culture, at once faithful to its origins and ready for creativity on all levels of art, literature, philosophy and spirituality is capable of sustaining the encounter of other cultures--not merely capable of sustaining but also of giving meaning to that encounter.

When the meeting is a confrontation of creative impulses, then it is itself creative. I think that among all creations, there is a kind of harmony in the absence of all agreement. (Ricouer: 283)

The school board came to Cambridge to meet with the seminar group and to visit several innovative small schools which had been designed by members of the MIT faculty and myself. A group of students was organized to assist in the data gathering work and during the winter of 1970-71 the group spent a month at Rough Rock conducting a broad range of investigations of educational practices and facility needs, Navajo architecture, and community preferences.

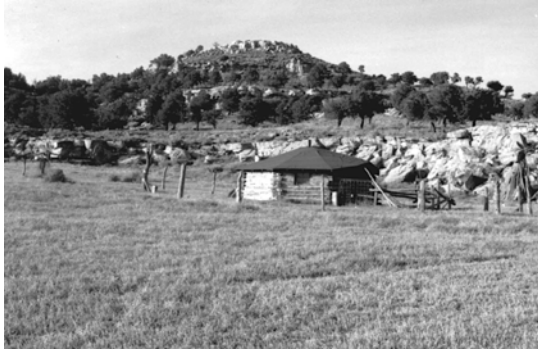


Figure 1. Navajo summer hogan. Kitsillie (Black Mesa), Arizona. 1983.



Figure 2. Log hogan near Rough Rock. 1971.



Figure 3. Government modular building used as first Black Mesa Community School. 1981.

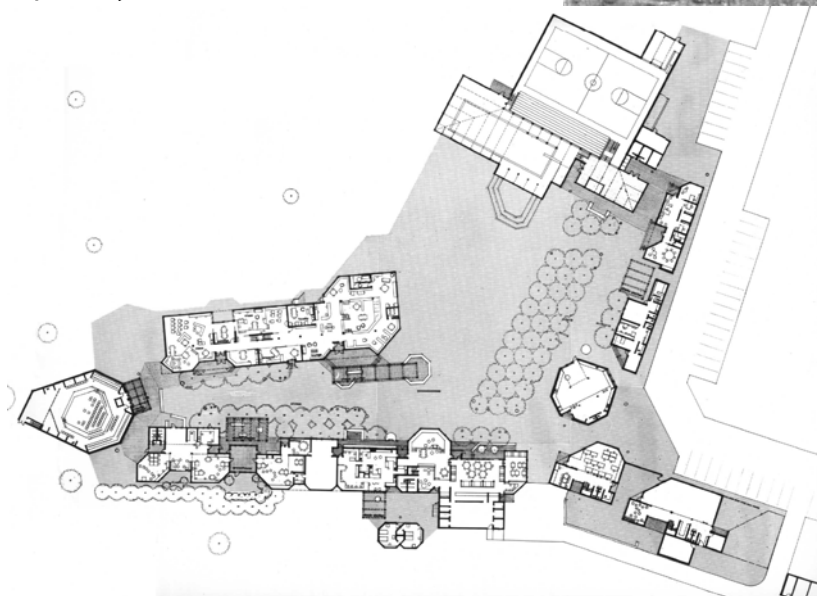
## NAVAJO ARCHITECTURAL PRINCIPLES

Navajo architecture counts only two primary types, the hogan and the shade shelter. The hogan is a domed structure about 20' in diameter containing one large room with a fire and smoke hole in the center. A true hogan has no windows and has one door always located to the east. The eastern orientation is symbolically important as it faces first light, and is functionally significant as it is usually sheltered from the prevailing westerly winds and sand storms. A hogan is only a hogan if constructed with the proper blessings and in the proper sequence. (See Figures 1 and 2.) The community made it clear that they would not expect the school to be built as a religiously correct hogan, but that they still preferred domed forms of all kinds to linear or flat forms so common in what they viewed as "anglo" architecture. Although we obtained little feedback on the shade shelter, our proposals to incorporate them into the school environment met with approval, and we took the shade shelter as a form embodying the opposite of the hogan: generalized and flexible organization with no doctrinaire rules.

Figure 4. (right)  
Rough Rock Community High School,  
With Black Mesa in background. 1982.



Figure 5. (below)  
Rough Rock Community High School,  
site plan by M.I.T. Team 1972.



Additionally, we learned of a great dislike for corridors and a preference for adaptable furniture and seating within the classrooms. The need to make places where traditional people visiting the schools, often not English speakers, would feel comfortable and welcome was another strong preference.

The typical Navajo residence which we observed extensively from the ground and air was found to be not one building, but an eclectic collection of one or two room structures, including tar paper cabins, hogans, shade shelters, corrals, and storage buildings, often occupied by an extended family.

#### ROUGH ROCK: DESIGN PROCESS

Our first rather global, conceptualization was based upon the Navajo residence. We set out--three alternatives, a single building, a group of buildings close together, and a group of buildings far apart. The group of buildings close together appeared both to support the observed cultural practice and to be feasible without excessive site development costs. It was approved as a concept by the school board.

Upon being informed of the community's site selection we studied the site and prepared maps and models. To our architectural eyes the upper part of the site was ideal. It offered a natural shelter from the wind and although not prominent in the sense of an attention getting spot, was high enough above the prevailing plateau elevation to afford both excellent drainage and good views. Fortunately for us we explored other alternatives in the lower part of the site.

The community evaluation was clear and resounding. Our favorite site was out of the question due to its historic connection with a death hogan and its continuing although infrequent use as a site for the slaughtering of horses. It also became quite clear that view was an aesthetic concept of value and meaning to us, but not to our clients. They were quite used to spending most of their time outside and looking at whatever they wished to. The idea that a building would be made to make special views was of no interest to them. Of the two remaining alternatives, they selected the one including clustered rather than linear forms.

All meetings were conducted in the Navajo language, which lent a great dignity and presence to the decisions made. It also never failed to impress upon us the need to offer well thought out ideas to the school board, to merit the tremendous efforts required for communication. (See Figure 6.)

Building materials were discussed extensively. Both the school board and the architectural team agreed that the boxy light steel stucco clad government schools were not a good type to emulate. Masonry bearing walls and exposed heavy timber was proposed and approved as the most appropriate building method for the school.



Figure 6. Rough Rock School Board Planning Meeting. 1971.

Figure 7. Black Mesa Community School. 1985.



Figure 8. Black Mesa Community School. 1985.



The strategy for developing the selected scheme emphasized maintaining and in fact increasing the diversity of building types and forms grouped around an outdoor circulation space. (See Figures 4 and 5.) The plan arrayed the major public spaces near an easterly entrance edge. Along this edge were major public spaces such as the gym, pool, and cafeteria. Also along this edge and giving character to the entrance zone were the shops, administration, and arts and crafts. One part of the arts and crafts space was made particularly clearly hogan-like. The one exception to this was the auditorium, also hogan-like which anchored the opposite end of the pedestrian space. Our intention, with which the school board concurred, was to set up a procession between two hogan-like single space buildings, along which other facilities could be organized. The pedestrian space was to include agricultural explorations and several shade shelters as well as special development of the entrances. Along this pedestrian place were two long buildings which housed most of the academic classrooms: One building containing the cafeteria and many of specialty classrooms was elongated to block the severe winds which came mostly from the southwest. This building, dubbed the "railroad car building" contained no through circulation, forcing people to use the outside space. Opposite was the only building with a significant internal circulation system. This structure included a library and the more traditional "anglo" academic subjects.

Considerable additional thought was devoted to the possibilities for local involvement in the construction of the school. Federal contractual regulations were determined effectively to preclude the formation of a community corporation to construct the building, but a great deal of attention was paid to the possibility of developing a community furniture making enterprise which could be developed out of school project and continue to provide furniture to other schools, taking advantage of various "buy indian" regulations and programs. Unfortunately this proposal did not succeed and was not funded.

#### BLACK MESA COMMUNITY SCHOOL

In the early 80's I became involved with the Black Mesa Community School which had begun as a satellite facility of the Rough Rock School. Black Mesa had been the victim of very strong efforts to close it down due to bogus safety and water issues. I first negotiated improvements to the existing facility which was a surplus portable building and subsequently assisted the Association on American Indian Affairs in challenging the Bureau of Indian Affairs' priority system. When the school was ultimately funded, I became the senior architect working with the Navajo architect, Leon Shirley. Unlike Rough Rock and Ramah, which were outside the BIA system of controls, this building was built under BIA guidelines and at a very low budget mandated by Congress.

Cultural preference in architectural form had to survive two additional hurdles beyond the normal BIA process. Congress, in its wisdom, had mandated that the classrooms be built of wood modular units trucked to the site, and that the multi-purpose gymnasium and kitchen be constructed as a pre-engineered steel building. These mandates, which were unalterable, obviously contradicted whatever potential there might have been for local involvement in the building construction and generally tilted toward a "universal solution". It was thus a tremendous challenge to the design team to maintain Navajo values with a most unpromising collection of requirements and mandates.

In a much truncated version of the process used at Rough Rock the school Board quickly rejected a courtyard scheme as being "too Pueblo" and directed us to proceed with a modified corridor plan. (See Figures 7, 8, and 9.) This plan was developed in part in: response to some of the problems encountered at Rough Rock, in which the eastern orientation of the complex was illegible to many because not all the buildings were built at the same time. At Black Mesa with a small program of four classrooms, it was easily possible to face both the school and all its classrooms with their own entrances to the east. A simple domed skylight was placed over the entrance with the only clerestory window and cove lighting for a hundred mile radius. All the public facilities of the school were organized around a lobby in which

the first thing the visitor sees are the welcoming elements of a drinking fountain and a bench. The kitchen was opened to the lobby, both to open this universally understood activity and to permit the kitchen staff, often traditional non-English speakers, to participate in the life of the school. The unavoidably boxy elements of the school were decorated with a bright red flashing reminiscent of the colors used in sand paintings.

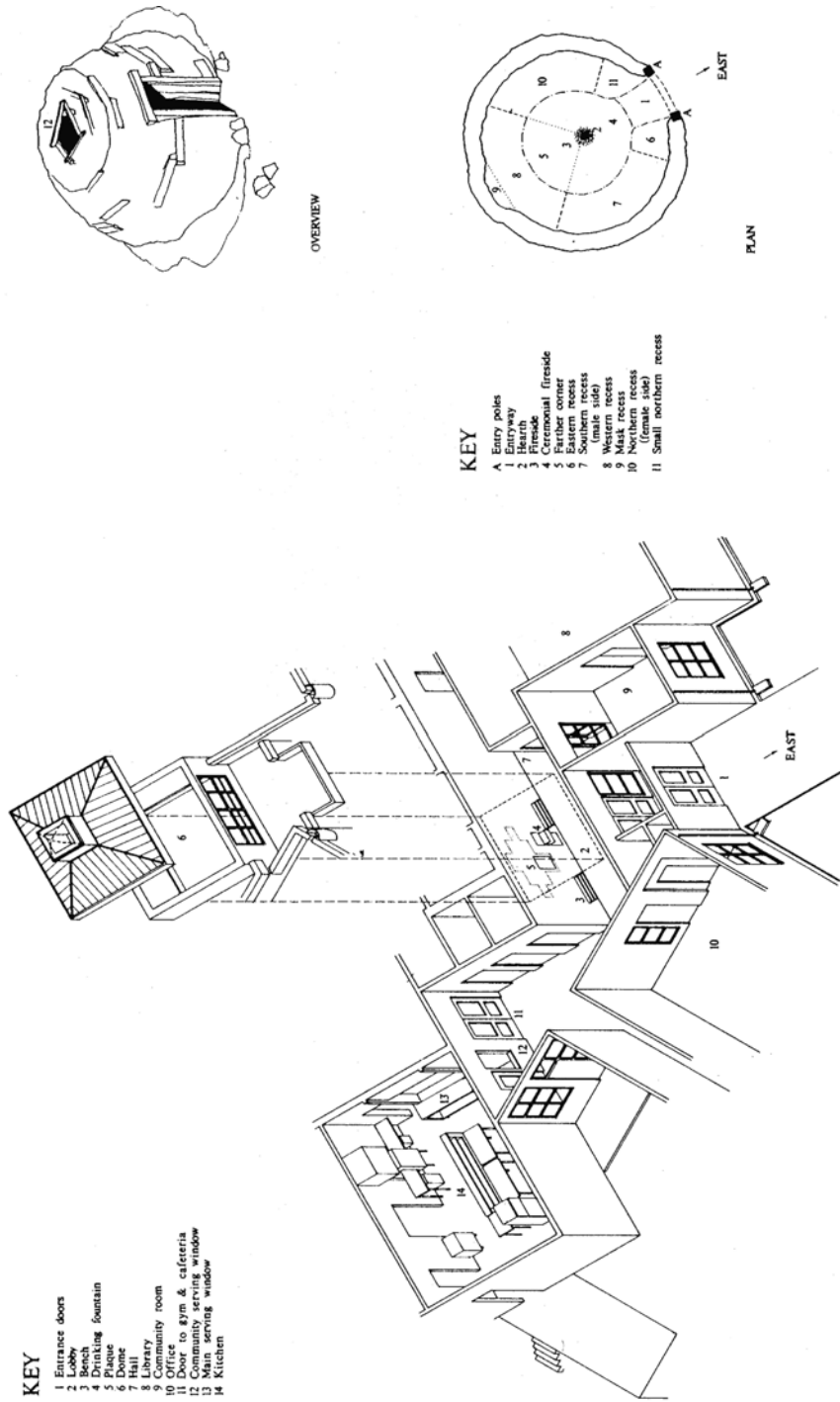


Figure 9. Black Mesa Community School and Traditional Navajo Planning Principles



## ASSESSMENT

The objectives of projects like these are not only to serve an immediate need in a culturally appropriate way, but to contribute to the process of inventing new types of, and in turn, to develop new attitudes toward process and architecture among a wide range of actors; community, staff, professionals, regulatory, and funding authorities. The task, then, is to create a new climate for building and designing. What are the lessons with which we can begin?

Navajos are people of action, who are accustomed to coping with the environment through their own efforts. After all the bureaucratic complexities of organization were attended to, it was clear that they understood space and were comfortable in discussing spatial concepts and strategies. In fact it appeared that they were more comfortable dealing with the language of space that they could visualize than they were with the more abstract aspects of economic development. This suggests that involvement in the process of planning buildings for new uses might be an important developmental step itself.

A related issue of the utmost significance is time. Traditional communities have incredible time resources in the sense of the flexibility to enable experienced elder members of the community to be available for key decisions. The specialization so common in "anglo" culture is partially a response to the lack of this availability of the moral and political leadership. Thus any truly responsive development or design process will of necessity be organized to take advantage of this time resource. The level of unemployment as counted by traditional means completely misses the potential of these individuals for sophisticated cultural analysis.

We also found that, unlike most anglos, Navajos found crucial meaning in the hogan form and its geometry. They liked the hogan and felt comfortable in spaces which echoed its geometry, however vaguely. This was a challenge to our own architectural training which emphasized the architect's need to control formal meaning.

These projects indicated a need for reform in the practice of the professions of architecture and planning. There is a need for a new kind of architect who is both able and expecting to conduct cultural research, who is able to distinguish between professional culture and local culture.

Architects and planners in practice often work in a highly incremental way, building on prior projects with a pragmatic awareness of the range of solutions expected within the particular context. Few projects provide either the funding or the time for research and intense cultural investigation. This research must therefore come from a small number of exemplary projects and from organizations dedicated to the collection and dissemination of relevant information.

Small-scale cultural organizations dedicated to the understanding and furthering of local and culturally sensitive information, to conferences and publication, would have an incredible impact on the current situation which is empty of any institutional advocate of culturally responsive design. One might imagine a domestic analogue to the Aga Khan program for Islamic countries under the auspices of a small organization such as the Association on American Indian Affairs, or possibly under Federal subsidy as a part of the Smithsonian Institution.

There is also great opportunity (and some danger) in the development of carefully framed regulations and development principles which would reinforce the use of culturally sensitive processes. Is it too hard to imagine grants from the Federal government to the tribes for this purpose?

## LINKAGES TO INTERNATIONAL DEVELOPMENT ISSUES

International and Native American development efforts share the tension between the functional and instrumental implications of economic rationality in light of traditional cultural preferences and practices. They share the conflict between building codes, financing mechanisms, project practices, and development processes on one hand, and traditional expectations on the other. Some developing nations themselves have particular problems with tribal peoples within their own boundaries. Increasing perception of world environmental concerns and the extensive research now performed on development models in the Islamic world under the auspices of the Aga Khan may provide opportunities to develop linkages among professionals regarding these issues.

In the course of these activities I have been struck by the complete isolation of the very small community of consultants attempting to address physical development issues on the Indian reservations in a culturally responsible way from the larger international development community. I am also convinced that the wealth of the United States and small size of the Indian population relative to the national population sets the stage for effective and exemplary work in this area should the national will so address itself. Thus the relatively simpler (smaller) problems found on the Indian reservations might serve as a laboratory to develop and implement more effective solutions than have yet been explored in the international arena. In the reverse direction, the greater range of cultures and possible modes of interaction represented in the international arena would provide a richer field from which to consider and develop theory applicable to the North American situation.

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