

# Energy Conservation and Native American Architecture

Peter Nabokov

## Glossary

**Band:** *Music Band:* may be either steel or brass; provides music for costumed individuals and for other participants. *Costume band:* costumed group of individuals coming together to play as a unit. The band theme determines the costume's design.

**Calypso** (also called "Kaiso"): Popular folk music, the lyrics of which are generally social commentaries expressed in West Indian creole and that rhyme in a catchy tune and danceable rhythm.

**Calypsonian:** One who composes and sings calypsoes.

**Fête:** Activity in which people gather to dance and enjoy themselves. Held in the open or in a dance hall, usually lasting four-six hours.

**Jump Up:** Rhythmic movement ranging from slow shuffle of tired feet to spirited, continuous jumps 12-18" off the ground. This is done to the beat of the calypso.

**Mas** (Abbreviation for "masquerade"): Refers to the collective festivities of carnival. An individual is called a "Mas" or "Mas Player."

**(To) Play Mas:** The act of wearing a costume and parading either individually or in bands during Carnival celebrations.

**Road March:** The tune played by the greatest number of music bands at carnival.

## Suggested Reading

Williams, Katherine. "Where else but America?" Annapolis: Fishergate Publishing, 1977.

Justus, Joyce Bennett. "West Indians in Los Angeles: Community and Identity," in *Caribbean Immigration to the United States*. Roy S. Bryce Laporte and Delores M. Mortimer. Washington, D.C.: Research Institute on Immigration and Ethnic Studies, Smithsonian Institution, 1976.

In off-the-freeway pockets of rural America, pre-Columbian customs for beating the heat and fighting the cold are still practiced. In the 1870s American Indian house life was investigated by Lewis Henry Morgan, the "father of American anthropology," principally to discover what it revealed of social life. But new interest in native American dwellings has begun to focus on its energy efficient features as well as the symbolism of traditional Indian structures.

This fall, outside of McLoud, Okla., Mr. and Mrs. Lewis Cuppawhe will be among the Kickapoo families moving large cattail roofing mats from the peaked frames of their summer houses to their haystack-shaped winter houses. During summer, mats are laid on the roof allowing cooling breezes to waft through the wide openings left by loosely tied side boards and beneath raised sleeping benches. In winter, however, the "wikiup" is shrouded to the ground with layers of mats. The Kickapoo believe they were taught this pattern of dual residence by Wisaka, a culture hero, who also showed them how to transfer the sacred central fire with each move.

Many Indian peoples traditionally enjoyed more than one residence; these dwellings were farther apart than the two minute walk between the Cuppawhes' summer and winter homes. On the precontact Great Plains, fortified villages of immense, semi-subterranean earth lodges kept people cool during the summer farming season,

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*Peter Nabokov has done extensive field research in Native American societies. He has written several books and articles based on his findings, including Native American Testimony: An Anthology of Indian and White Relations. He is at present working on a book on the history and symbolism of Native American Architecture.*

while fall and winter saw the community move west in pursuit of buffalo. On the Northwest coast that pattern was reversed: there the cherished townsites were the coastal winter towns with their impressive communal houses expertly carpentered and carved from cedar. In summertime the wall boards of these great houses were taken down, lashed between canoes for a trip upriver to the salmon fishing stretches, then used to roof the more lightly constructed shelters.

To both the plains and coastal peoples, however, lodges were considered sacred earthly representations of the tribal universe. During sacred periods in the tribal calendar they became temples of the community.

The confinement of reservation life, however, limited such customs and seasonal movements. Still, on the third weekend of August one can find Plains Indian tribes reliving the heyday of the horse riding and tipi-dwelling era at Crow Agency, Mont. More than 300 tipis lift their proud, green-tufted poles to the sky as the old sacred circle of lodges is restored. During the Crow Fair the middays are often broiling, and an occasional hem of a canvas tipi cover is raised and propped on sticks to allow air flow. During cool nights they are pegged to the ground. Inside, a liner, or "dew cloth," is fastened from the base of the tipi poles to about six feet up, creating a draft to lift smoke through the top hole. During a sudden downpour the women hastily cross over the smokeflaps at the top of the tipi with the aid of long poles.

Tipis no longer protect Indians from harsh high plains winters, but in the past, tribes like the Crow, Blackfoot, Sioux, and Cree were inventive at adapting them to



below zero temperatures. The interior air envelope, between the dew cloth and the tipi wall, was packed with dry grass for insulation, and the outer base was banked with snow. Inside, the central fire kept the family, sleeping in the thick of long-haired buffalo robes, very snug.

Recent experiments comparing the energy efficiency of the tipi with a modern American home indicate that on freezing winter nights the Indian lived at a similar comfort level. Their hardwood-burning fires warmed the tipi at a comparable efficiency level to our oil heated furnaces, because the space required for each person was a tenth the area we are accustomed to.

The Miccosukee and Seminole who live on little islands, or "hammocks," in the Everglades swamps of southern Florida still favor year-round use of their traditional houses — called "chickees" — which are built of tough cypress poles and roofed with palmetto leaves. (They are also popular with non-Indians; Roy Cypress, for instance, hires out teams to build chickee forms for barns and garages.) Here the problem is ventilation rather than insulation. A few years ago the Bureau of Indian Affairs built new, single-family homes for the Miccosukee. They tried to imitate the chickee style, but the walled houses with their small windows were never popular. Unlike the chickee, they competed with nature instead of cooperating with it; furthermore, they were expensive to air-condition. Quietly the Miccosukee families moved back into the old style homes with their raised sleeping and working porches, their mosquito netting, and the familiar rustle of wind through the palmetto roof.

While the chickee represents a



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1 Mr. and Mrs. Lewis Cuppawhe and their winter wikiup. Photo by Robert Easton

2 This detail of a wikiup shows the cattail mats that are overlapped for insulation. Photo by Robert Easton

cultural survival, other Indian communities are experiencing a revival of old house building. The Wichita of central Oklahoma have resumed building the distinctive beehive-shaped houses of red cedar ribs that seemed to be lost a half-century ago. In Northwestern California the Hupa have been reconstructing their traditional cedar plank houses on the sites of three old *rancheria* (or village) locations. Both the Hupa family house and the slightly smaller men's sweat house belong to the oldest architectural tradition in North America, the pit house. Here earth serves as excellent insulation, walling the four-foot deep

excavations where the Hupa once warmed themselves during the damp winter and cooled themselves throughout the baking summer.

In the Southwest two famous Indian house traditions still share the same ecological zone. The striking contrast between the single-family Navajo "hogan" and the communal network of rooms in a Pueblo village suggests the difficulty in finding a single explanation for a Native American house form. With its mud-and-log or mud-and-rock wall and roof, the "hogan" is cool in summer and cozily warm in winter. But Pueblo society uses the same materials to construct large adobe apartment house complexes with an even more efficient use of space per person.

In both cultures, the proper con-





The Hupa of Northwestern California utilize earth as an insulating material by building semi-subterranean plank houses. Photo by Peter Nabokov



The interior of a Hupa cedar plank house with the hearth in the foreground. Photo by Peter Nabokov

secration of the home according to ancient ritual is as important as its construction. For instance, the newly built addition to a Zuni home is laid out to conform to the ceremony that blesses it. One long room is designed so that in late autumn a 10 ft. masked dancer, known as a *Shalako*, can perform a trotting, back-and-forth dance within it. During the *Shalako* festival, six such dancers bless six houses; only then are the homes ready for habitation.

Visitors entering the Indian lodges built at our Festival will notice the skillful use of available materials. These home traditions perpetuate practical adaptations to climate; also, they indicate man's impulse to invest his immediate environment with spiritual meaning.

#### **Suggesting Reading**

Laubin, Reginald and Gladys. *The Indian Tipi: Its History, Construction, and Use*. 2nd ed. Norman: University of Oklahoma Press, 1977.

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## The Medicine Show

### Brooks McNamara

*Oh! I love to travel far and near  
throughout my native land;  
I love to sell as I go 'long, and take  
the cash in hand.  
I love to cure all in distress that  
happen in my way.  
And you better believe I feel quite  
fine when folks rush up and  
say:*

*Chorus:*

*I'll take another bottle of Wizard  
oil,  
I'll take another bottle or two;  
I'll take another bottle of Wizard  
oil,  
I'll take another bottle or two.*

Carl Sandburg,  
*The American Songbag*

The traveling salesman is a fixture in our folklore, celebrated in stories, jokes, anecdotes, and cartoons. Within the ranks of the salesmen, a special sense of mystery and glamour surrounds the medicine showman — the itinerant patent medicine seller whose free performances were an important part of small town life still within the memory of many Americans.

The American patent medicine seller derived from mountebanks — wandering herb doctors and medicine vendors who drew crowds with songs or conjuring. They appeared in the New World as early as the 1600s, but it was only about 1850 that the idea of selling medicine between the acts of a free show resulted from the rapid growth of proprietary medicine companies, many of which sent advertising units on the road after the Civil War. These units were

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*Brooks McNamara is Professor in the Graduate Drama Department of the School of the Arts at New York University, where he heads the program in American folk and popular performance. He has written extensively on these subjects and on the history of American theatre architecture, and serves as Director of the Shubert Archive.*