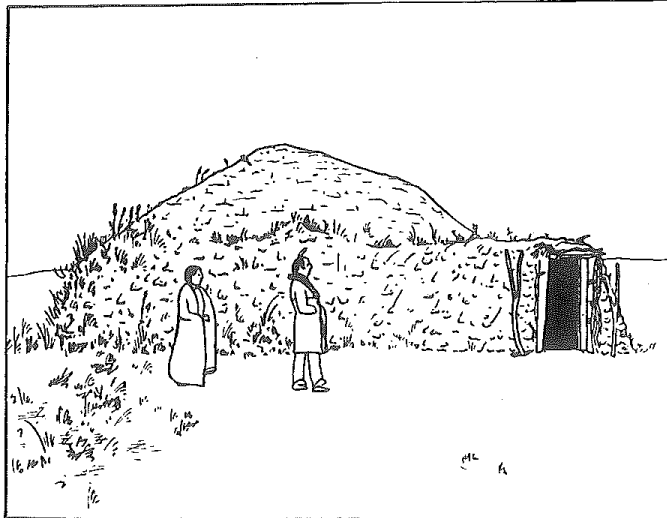


DENVER ART MUSEUM

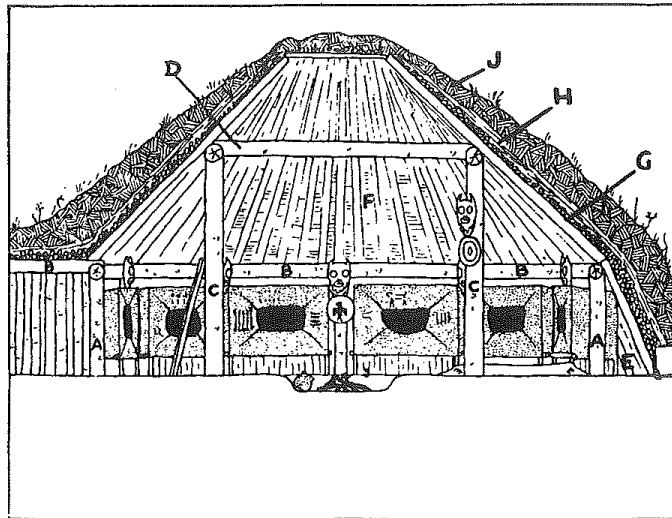
DENVER, COLORADO

Department of Indian Art

RICHARD G. CONN, CURATOR



EXTERIOR



INTERIOR

THE PLAINS EARTH LODGE
Courtesy of the Cleveland Museum of Natural History

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THE PLAINS INDIAN EARTH LODGE
HISTORIC PERIOD

DISTRIBUTION. The Plains earth lodge was used by the Mandan, Hidatsa, Arikara, Amahami and Cheyenne, living along the course of the Missouri River in North Dakota; by the Ponca, Omaha, Pawnee, Kansa and Oto living in Nebraska along the Missouri and Platte Rivers; by the Osage in southwestern Missouri; and by the Kiowa in northwestern Texas and Oklahoma.

HISTORY. This form of dwelling is considered by investigators to be very ancient. The Plains earth lodge is the fullest development of type of house that in one form or another is found throughout much of western North America and northeastern Asia. The most celebrated lodges were those of the tribes to the north of the area and those of the Pawnee. The Cheyenne abandoned the earth lodge in favor of the tipi in the 18th century, while the other tribes continued to live in them to some extent up till about 50 years ago. One or two lodges still existed in 1918 on the Mandan reservation. With care, a lodge would last a generation.

EXCAVATION. When a satisfactory site had been picked, usually near a stream, a circle from 20 to 60 or even 100 feet in diameter was described on the ground with a stick tied to a long rope, the other end of which was attached to a pole driven into the ground in the center of the building to be constructed. Inside this circle an excavation was made from 1 to 4 feet deep, the earth being thrown up around the edge of the hole. At one point a ramp 4 to 6 feet wide was dug, leading from the bottom of the pit, at its edge, to the ground level.

FRAMEWORK CONSTRUCTION

OUTER BEAMS. Around a circle $1\frac{1}{2}$ feet smaller than the limits of the excavation was set a row of strong forked or notched peeled posts (A), which were from 4 to 8 feet high and from 8 to 10 feet apart. These posts were linked together with beams (B) resting on their forked tops. Posts connected at the top with beams were also set along the sides of the ramp leading out of the pit, thus making the entrance hall. This was about 5 feet wide, 6 feet high, 12 to 15 feet long.

INNER BEAMS. Four large posts (C), from 10 to 15 feet high, formed the corners of a square set around the center of the building. These posts were placed about half way from the rim to the center of the excavation. Four stout horizontal beams (D) connected the tops of these posts.

CONSTRUCTION OF WALLS AND CEILING

Two sets of small, tapering peeled poles, sometimes split in half, were laid close together on the two sets of foundation beams. One set (E) ran at an angle of about 45 degrees from the floor of the pit, at the bottom of the wall, to the lower or outer set of beams. The second set (F) ran at an angle of about 30 degrees from the tops of the lower beams up towards a point directly above the center of the pit, resting at about their midpoint on the high inner set of beams. The slender, upper ends of these poles were cut so as to form a circular opening 3 or 4 feet across. The poles were tied to the beams with bark fibre ropes. Though the circle formed by the butts of the poles was much larger than that at their tips, the taper of the poles was sufficient to allow them to lie close together at all points, thus presenting an evenly corrugated surface on the walls and ceiling of the lodge. Poles were also placed on the walls and roof of the entrance passage.

CONSTRUCTION OF ROOF

INNER LAYER. On the ceiling poles of the lodge and entrance passage, at right angles to them, were placed several layers of willow rods (G), laid as close together as possible. These rods were tightly bound to the poles.

MIDDLE LAYER. On top of the willows was constructed a thatch of bundles of coarse grass (H), arranged in overlapping layers so as to shed water.

OUTER LAYER. The final coating of the roof was made of thick strips of sod, laid to overlap like shingles (J). This layer was rendered impervious to water by tamping it into a solid mass. Grass and flowers rooted in the earth roof of the house, which soon appeared to be a natural mound. The only sign of the life inside was the smoke drifting from the center smoke hole. The roof was a favorite lounging place.

There were several variations of this form of roof. Sometimes the grass thatch was omitted and clay often replaced the outer layer of sod.

DIVISION OF LABOR. The men cut, hauled and set the heavy posts and beams, while the women bound the timbers together and did the thatching and sodding.

DRYING PLATFORMS were built by every lodge, either directly in front of the door or in the spaces between the lodges. The platforms varied considerably in size and details of construction. The average platform was made by setting 2 to 4 pairs of poles in parallel rows. Half way up these poles cross pieces were fixed, on which was laid a tight floor of poles. The floor area was about 12 by 20 feet. Cross pieces were also fastened across the tops of the poles. Food and hides were dried on the platforms.

INTERIOR

LIGHTING. The only light entering the lodge came through the smoke hole. As the upper part of the room was usually rather full of smoke the lodges were dimly lighted, unless a bright fire was burning.

DOOR. The long entrance passage was closed at both ends, the outer door being made of hide stiffened with a wooden frame and the inner one a curtain of soft tanned hide.

FLOOR. All loose earth left from the digging was carefully removed. This cleanup was followed by a thorough tamping of the floor. It was next flooded with water, after which dried grass was spread every where and burned. This wetting and heating process was repeated several times, until the earth was nearly as smooth and hard as stone. Much care was taken to keep the floor clean by sweeping it with brooms of grass or twigs. Grinding mortars and storage caches were dug in the floor.

FIREPLACE. In the center of the room, directly under the smoke hole, was the fireplace, a rather shallow square or circular excavation of hard baked earth lined on the sides with stone. Pots were suspended over the fire from tripods, posts set slanting in the earth or poles held over the fire by two upright posts.

BEDS. In most earth lodges partitions of rods, skins or rush mats were built out from the wall, dividing the outer circumference of the room into a number of open faced sections. In these, low platforms were built,

on which beds of skins or blankets were made up. Sometimes the beds were enclosed in large hide boxes, often movable, equipped with curtains to keep out the cold. In the southern part of the earth-lodge area the partitions and platforms were often dispensed with.

OTHER FURNITURE. The space outlined by the four central posts was the social center of the lodge. In winter it was often cut off from the rest of the room with buffalo hide curtains. Back rests of willow rods, skin covered basketwork benches, piles of skins, rush matting and cushions of various kinds provided seats around the fire. The place of honor was opposite the door. Much of the war, hunting and riding gear of the members of the household was hung on the foundation posts nearest the beds of the owners, or on special posts set in front of the beds.

Sometimes a partition of coarsely woven or wattled reeds or twigs was built several feet in front of the door and running from one side of the room nearly to the other. It was usually covered with skins. This served as a wind break.

OCCUPANTS. The number of persons living in each lodge depended on its size. Small lodges were the homes of one man and his various relations, while the larger buildings might contain several groups, with a total number of from 40 to 60 persons. There was ample room for this number, for a chamber 50 to 60 feet in diameter is extremely large.

HORSES were often kept in the lodges in bitter weather. This favor was reserved for only the very best animals belonging to the lodge owner. The horses were stabled behind a low fence built to one side of the room.

CEREMONIES accompanied every step in the building of a lodge, from the marking of the circle to the putting on of the sod. The Pawnee ceremonies were extremely elaborate. Facts about them are given in Bureau of Ethnology Bulletin 30, volume 1, page 411.

VILLAGE PLAN. The villages contained from a few dozen to over one hundred lodges. In some towns the lodges were fairly regularly laid out in circles around a central plaza, while in others they were clustered together without plan. A good many of the lodges faced east, but there was no set rule about this.

FORTIFICATIONS, consisting of palisades of logs enclosing walls of rough basketwork plastered with clay, were built around some of the villages.

Compiled from the following sources by F. H. Douglas :

BUREAU OF AMERICAN ETHNOLOGY

1. Indian Villages West of the Mississippi—Bushnell
Bulletin 77, 1922

UNITED STATES GEOLOGICAL SURVEY

2. Ethnography of the Hidatsa—Matthews
Miscellaneous Publication No. 7, 1877
3. Houses and House Life of the American Aborigines—Morgan
Contributions to North American Ethnology, Vol. 4, pp. 125-129

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4. Indian Homes—Madison. Cleveland 1925

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5. The Mandans—Will and Spinden. Papers, Vol. 3, No. 4, pp. 103-110

AMERICAN ANTHROPOLOGIST, NEW SERIES

6. The Origin of the Earth Lodge—Linton. Vol. 26, p. 247

1. Has many pictures and information on the lodges of all tribes which built them.