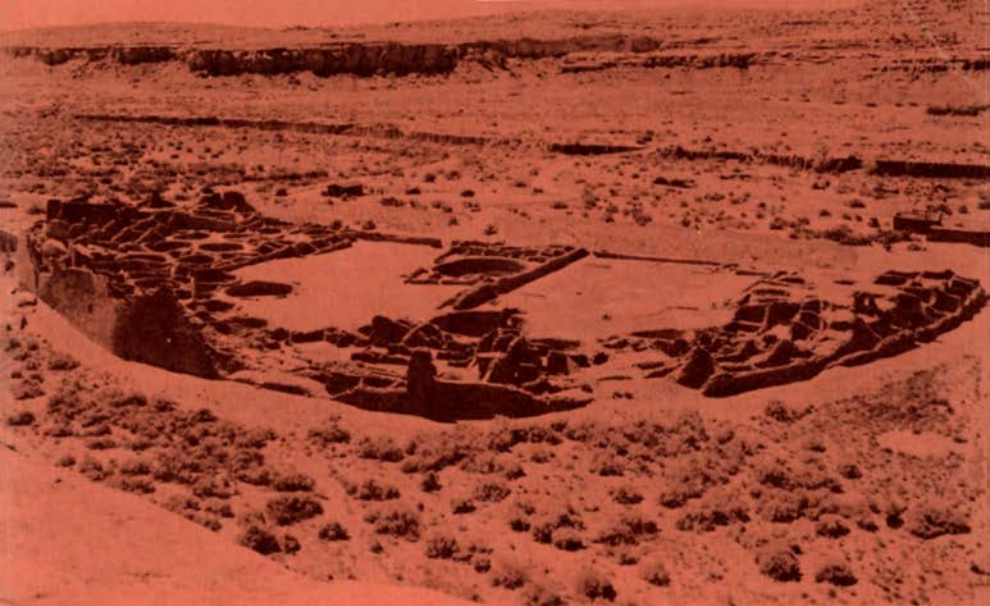




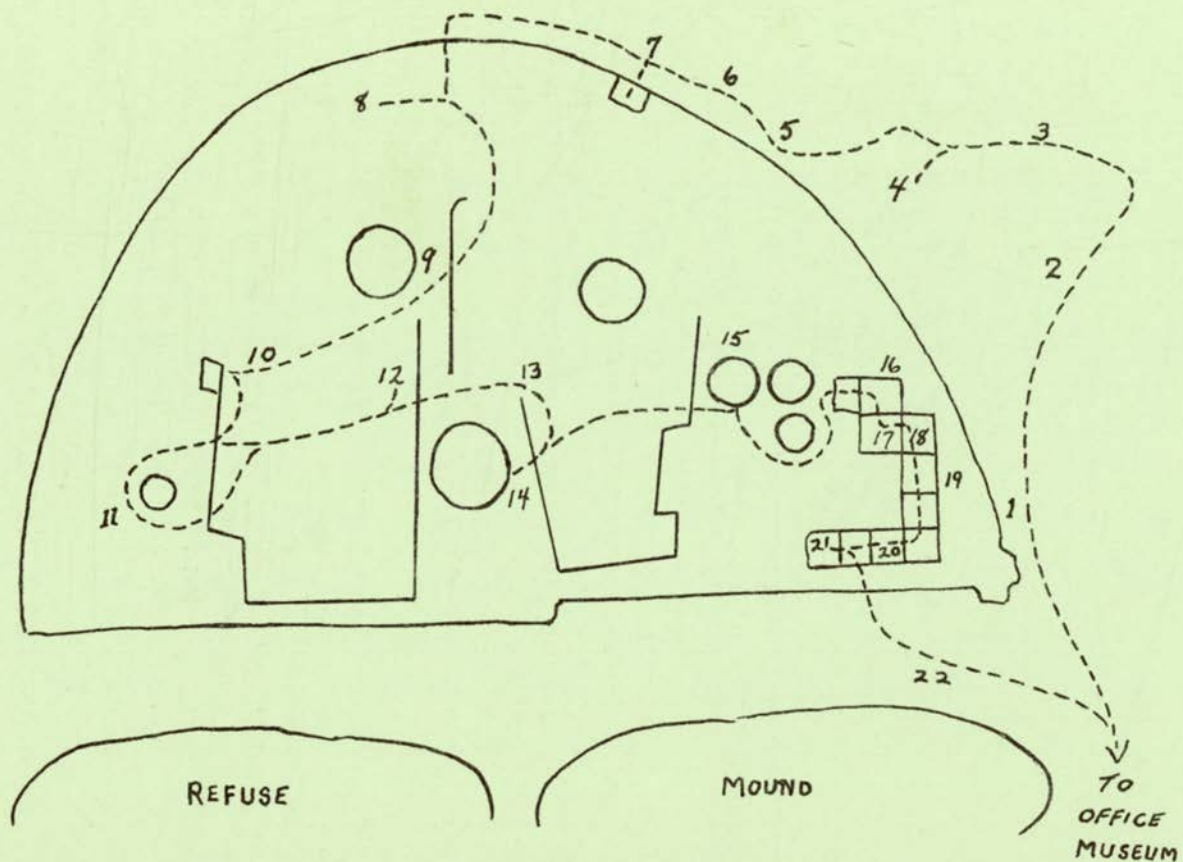
GUIDE TO Pueblo Bonito TRAIL



PRICE 5 CENTS
IF YOU TAKE THIS
BOOKLET HOME

or you may use it free of charge, returning
it to the register stand when you leave. . .

CHACO CANYON NATIONAL MONUMENT



NATIONAL PARKS AND MONUMENTS

Chaco Canyon National Monument is one of more than 180 areas administered by the National Park Service, United States Department of the Interior. These areas were set aside because of their scenic, scientific, historical and archeological values and they are part of your heritage as American citizens.

The National Park Service was created to preserve the parks and monuments for your enjoyment and that of future generations. This has made it necessary to prohibit all activities that would destroy any of the works of nature or man preserved here. This includes such things as hunting, wood-cutting, grazing, and even the taking of small pieces of broken pottery. We hope you will help us preserve Chaco Canyon National Monument. Remember a thoughtless act on your part could destroy in a few moments something that has been here for centuries.

The men in the uniform of the National Park Service are here to help you and will welcome the opportunity to make your stay at Chaco Canyon more enjoyable.

GUIDE BOOKLET TO PUEBLO BONITO TRAIL

The building you are about to visit was once the farm village of about a thousand Pueblo Indians. Today it stands ruined and silent. As you make your way along the trail, pause from time to time and try to visualize Pueblo Bonito as it looked 800 or 900 years ago.

We hope this booklet will help you as it explains the features you will see along the trail. Please stay on the trail and look for the numbered markers.

Don't forget your camera

STATION 1 - Pueblo Bonito, the largest excavated prehistoric Indian ruin in the Southwest, represents the highest development of Pueblo Indian architecture. Today the building stands very much as it was, after excavation. The only repair has been patching of holes and capping of the walls with stone set in concrete mortar to stabilize them.

Notice the good masonry used in this section of the wall — stones carefully fitted together and held in place with mud mortar. The small square holes about waist level were "windows". They were probably used more for light and ventilation than to see through. The circular holes about head high are sockets for rafter timbers which once supported the roof of the room just inside the pueblo.

STATION 2 - This pile of sandstone boulders was once a large vertical section of cliff, known as Threatening Rock. It had broken loose from the cliff and started to settle toward the pueblo while the building was still occupied. The slab stood out away from the cliff very much as does the small "threatening rock" to your right near the water tank.

The Pueblo Indians, attempting to prevent Threatening Rock from falling, constructed a masonry wall at its base. You can see part of that prehistoric wall at the base of the large rock just ahead of you. The wall acted more as a measure to prevent erosion from eating away at the base of the rock than as a brace to hold up the rock itself. Threatening Rock fell January 22, in the wet winter of 1941.

STATION 3 - The rock material around you is known as the Cliffhouse sandstone, part of the Mesa Verde formation. It was formed at the bottom of a sea, during Cretaceous time, approximately 70 million years ago. If you will look closely at the flat rock above Stake 3, you will notice the weathered remains of fossil sea shells. Between the thick beds of sandstone are thin layers of coal, shale, clay and crystalized gypsum, materials used by the Chaco Canyon people in making pottery, jewelry and other ornaments.

STATION 4 - Except from the top of the cliff, this is the best overall view of Pueblo Bonito

Pueblo Bonito at the present time covers about $2\frac{1}{2}$ acres. The building at the time of occupation probably had about 800 rooms and was four or five stories high in some places.

As you look over the canyon floor and the surrounding country it looks pretty barren, but apparently such was not the case when the Pueblo Indians lived here. We believe the area was then covered with a sparse stand of Pinyon and Ponderosa Pine. Because of the dry climate and the intensive use by Indians, changes gradually came about. The watershed was slowly being destroyed. No longer was there vegetative cover to hold back the summer rains; corn fields were flooded and covered with mud and trash. In other places arroyos were cut down through the fields, destroying the farm land upon which the people were so dependent. These and other factors eventually caused the Pueblo Indians to move away from Chaco Canyon, since the people must have felt it would be easier to start over than to continue life here.

We believe the Chaco Canyon folk left the area in small groups and families, with some going southward toward the present day Zuni country, and others moving eastward to the Rio Grande, where many Pueblo Indians still live.

STATION 5 - Notice the tremendous thickness of the wall. This was done mainly for strength. As the walls get higher and less support was needed they were made thinner.

At this point you can also see that only the rows of stones on the outside and on the inside of the walls have been squared. The rubble interior of the wall is made up of rough, irregularly-shaped stones.

STATION 6 - This section of wall represents some of the finest stone work in all of Chaco Canyon. Along this section Pueblo Bonito was at least four and possibly five stories high. Imagine how many hundreds of tons of stone and timber were used in the building! Remember also that all of this material had to be transported and placed by hand, since the Pueblo Indians had no pack animals, and knew nothing of the wheel. In fact, the only domesticated animals they had were dogs, turkeys, and macaws, or smaller parrots kept for their bright feathers.

At the present time you are standing at the roof level of the first story. Notice at the top of the wall to your right you can see some timbers the Indians put in for reinforcement, a common practice in Chaco Canyon building.

STATION 7 - Here is a room with an original roof still in place. Step inside if you like. The larger timbers are Ponderosa Pine, and the smaller twigs are of peeled Willow. On top of that is a layer of split Juniper and Juniper bark, covered with 4 to 6 inches of hard-packed soil and clay which forms the floor of the room above.

You may have noticed the masonry here is of a different style than that at the

last stop. This type of construction is somewhat older than that at Station 6.

By looking at the roof timbers you can see that a great deal of care was taken with them. Timbers were cut with stone axes, and then carried to the building site, in some cases, a distance of several miles. The bark was then carefully peeled from the logs and the knots "sandpapered off" with a piece of sandstone. The rafters were then set in the masonry wall and the rest of the roof laid on top of them.

STATION 8 - You are now in what is believed the oldest section of Pueblo Bonito. One indication of its age is the very crude type of masonry. To the right, notice the two modern roofs. They protect prehistoric roofs, which you are welcome to inspect. Also to your right you can see some small vertical poles stuck in the masonry wall, a type of prehistoric reinforcement.

STATION 9 - The large circular room is known as a Great Kiva. It probably served as a ceremonial center for all the people in the pueblo.

STATION 10 - In this room were found the bones of 16 women, 6 children and 1 man, the largest group of burials found in Pueblo Bonito. Most of the bones had been disturbed, scattered around the room - possibly the work of prehistoric grave robbers.

With the burials were found many pots, baskets, tools and jewelry. These items

were probably placed with the dead to help them make the trip from the present life to the life hereafter.

Although more than 100 burials were found in Pueblo Bonito, they do not represent even a small fraction of the number that should have been found in a town of this size. Where the rest of the Bonitians are buried is still unknown, but the graves probably lie under the considerable canyon fill.

STATION 11 - The small circular room is known as a kiva and is a very typical one. It was constructed and used by a particular society. A group of men would use the kiva for a ceremonial center, council room, club house, and many other functions, but never as living quarters. Women apparently used the kivas only when invited, judging by present pueblo practices.

If you will look toward the cliff, just to the left of the arched doorway you will see three large planks at the base of the cliff. This is the starting point of a prehistoric Indian trail which leads to the top of the cliff. You are welcome to make the trip. However, the trail is quite steep and you must use extreme caution. Once on top of the cliffs you will get a fine view of the canyon. It is also a good place for pictures of Pueblo Bonito. The trip will take at least 45 minutes.

STATION 12 - The flat stones lined along this wall are called metates (meh-TAH-tays) They were used by the Pueblo Indians to

grind their corn and other seeds into flour. The seed was actually crushed between two stones, the metate and a hand stone called a mano. In grinding the meal a great deal of rock inevitably was mixed with it. Through the years a diet of cornmeal and crushed rock would eventually wear away the Pueblo Indians' teeth, until in old age they had little left but the stubs.

Since these people were dependent on cornmeal as their major source of food, metates were one of the most common items found in the ruin.

STATION 13 - This large, flat area was the courtyard or compound where the Pueblo people did most of their work and day to day living when weather permitted. ceremonies and dances were also held out here, as well as in the kivas. The courtyard is about the same level now as when in use by the Bonitians. With a little imagination you perhaps can visualize it on a warm summer day 800 or 900 years ago.

STATION 14 - Here is another example of a kiva. This one is very much like the first you saw at Station 9, only a little more complex. The small niches in the wall around the room probably served as storage spaces or depositories for ceremonial objects. In the Great Kiva at Chetro Kettle Ruin just up the canyon, more than 130 feet (when strung) of beads were found in similar niches. This kiva was entered by means of the stairway at the north end of the room (please do not

attempt to use it). The largest Great Kiva ever completely excavated is located across the canyon, and is known as Casa Rinconada. We encourage you to visit it if you can. A Great Kiva at Aztec Ruins National Monument, 59 miles north of here, has been reconstructed, and is well worth the short time it takes to stop there to see it.

STATION 15 - Here we have several typical Chaco Canyon style small kivas. Their function was the same as the small kiva we saw at Station 11. You will note, however, that this kiva has no pilasters or columns for supporting the roof. The roof of this type kiva was built right on top of the wall of the room itself. The small holes cut in the top of the wooden timbers you see around the top of the "bench" were apparently used as offerings niches. In many cases the holes contained small shells, beads, and pieces of turquoise.

In the floor you can see the wall of an even older kiva, which was leveled by the Indians, probably to make room for this bigger and better kiva.

The open corner spaces between the kivas and surrounding walls in this area resulted from constructing circular kivas in rectangular rooms (perhaps old abandoned living rooms or storage space that had been leveled). Always these spaces were filled with dirt, thus technically the kiva was still underground.

STATION 16 - This sizable pueblo room was probably used at one time as living

quarters. Notice that the roof has been destroyed by fire, as had many of the others in the pueblo. Archeologists feel that the fires were accidental. The floors of most of the rooms here in the pueblo were of hard-packed clay. They were swept and sprinkled with water from time to time to keep them hard. There are a couple of instances in Pueblo Bonito where hand-hewn planks and flagstones were used in flooring.

STATION 17 - Normally a single family would occupy one room, using it as a kitchen, living room, and bedroom. It would also have several additional chambers for storage space. Not all of the rooms in the pueblo were in use, even at the height of occupation. As the town grew in size and height, rooms in the back part would be abandoned because of difficult access, and because they were dark, and with almost no ventilation. The people usually occupied the rooms which opened directly onto the courtyard and those facing the courtyard on the upper stories.

These rooms may not seem like much space for one family, but they had no furniture of any sort, and conducted most of their activities outside. They sat and slept on the floor.

No doubt many of you are interested in the excavation of a ruin. It is a very difficult undertaking, as most ruins are buried under many feet of wind-blown soil and fallen building stones. Here at Pueblo Bonito in some cases there was as much as 16 feet of such material covering the

floors of the rooms. From 1896 to 1899 the Hyde Exploring Expedition excavated about one half of Pueblo Bonito. It took from 1921 to 1926 for the National Geographic Society to finish the job.

Because excavation takes so much scientific skill and knowledge, and cannot be done properly by a person without training, there are both federal and state laws which prohibit digging in any ruin on federal or state property without written permission from the secretary of the bureau concerned or appropriate state authority.

STATION 18 - As you travel from room to room one thing is quite obvious: the doors were not built for very stout people. The Pueblo Indians, however, were not much shorter than we are. Men averaged about 5 feet 2 inches tall. There were several reasons for making the doorways small: the smaller the opening the less it weakened the wall, also a small opening is easier to cover in bad weather than a large one. Doors were usually a mat or blind made of willow stems or reeds or a sandstone slab.

Photographers can get a very interesting picture down through this series of open doorways. Since there are no halls in the building, in order to get from the back rooms to the outside, one had to travel through all the adjoining rooms or go over the roofs. Not much privacy!

STATION 19 - Notice the sealed door and window (east wall). This was done by the inhabitants. There were probably many rea-

sons. Perhaps when the people left the area some of them thought they would return to move into the old homes again. To keep unwelcome visitors out they locked their doors by filling them with stone. Also, after rooms were abandoned for living quarters and storage space, they would be sealed off and used for burial chambers or garbage dumps, refuse being thrown through a hole in the roof of the room.

STATION 20 - This is one of the few examples of a "T" or key-shaped doorway in Pueblo Bonito. This type of door is found throughout the Southwest and is very common at Mesa Verde, but it is rather rare at Chaco Canyon.

STATION 21 - Here is another roofed room. Notice this roof is not as uniform as the first you saw. This one has much heavier timbers and no peeled willow stems to hide the rough juniper limbs and juniper bark. The small, round holes in the timbers are places where cores have been taken out for tree-ring dating.

Some of the patches of dirt or dried mud sticking to the walls were put there by the Pueblo Indians as plaster. When the building was occupied most of it (inside and out) was covered with coats of plaster. In some places it was a natural dirt color. In other places various minerals were added to give color. In many of the rooms pictures were cut or painted on the plastered surface.

STATION 22 - The long, low ridge in front

of you is the Pueblo Bonito city dump. Since these people had no way to haul the refuse away from the village, they carried it in baskets or pots to the nearest convenient spot, which was in many cases here in front of the building. This ridge or midden mound is the accumulation of 20 feet of floor sweepings, ashes, bones, broken pottery, tools, and other trash the people could no longer use.

You have undoubtedly noticed the broken fragments of pottery (called potsherds) lying on top of the trash mound. You are welcome to look at them, but please do not carry them away. Like the ruins themselves even these fragments are important archeological remains and are protected by Federal law.

* * * * *

We hope you have enjoyed your trip through Pueblo Bonito. The Park Rangers are here to assist you in any way they can, and will be glad to answer, to the best of their ability, any questions you may have.

CONSERVATION — CAN A LAYMAN HELP?

If you are interested in the work of the National Park Service and in the cause of conservation in general, you can give active expression of this interest, and lend support by aligning yourself with one of the numerous conservation organizations which act as spokesmen for those who wish our scenic heritage to be kept unimpaired for the enjoyment of future generations.

Names and addresses of conservation organizations may be obtained from the ranger.

This booklet is published by the
Southwestern Monuments Association
Box 1562
Globe, Arizona

Southwestern Monuments Association, a non-governmental and non-profit organization, was conceived by the employees of the Southwestern National Monuments of the National Park Service to aid in the preservation and interpretation of Southwestern features of outstanding national interest. Approval of the Secretary of the Interior was given in 1938, and the organization became active in that year.



This insignia, "trade-mark" of the Southwestern Monuments Association, is a prehistoric artist's conception of a Gambel Quail. It was carefully copied from painted decorations on Hohokam pottery found in the ruins on Casa Grande National Monument, near Coolidge.

