



WUPATKI RUINS TRAIL

WUPATKI NATIONAL MONUMENT

50 CENTS IF YOU TAKE THIS BOOKLET HOME



South portion of Wupatki before excavation.

Wupatki National Monument is one of over 350 areas administered by the National Park Service, U.S. Department of the Interior. Within the protected boundaries of the monument lie over 2600 prehistoric sites, historic Navajo sites, and many unique geologic features.

The National Park Service has the responsibility of preserving Wupatki and all other parks and monuments in their natural, unspoiled condition in order to make their scenic and historic treasures available for your enjoyment without impairing them for future generations. To achieve this high purpose, activities such as pot sherd collecting, woodcutting, hunting, mining, and even flower collecting are prohibited. We hope you will join with us in protecting Wupatki National Monument by taking only pictures and leaving only footprints.

The uniformed employees of the National Park Service are here to serve you, and welcome the opportunity to make your stay in Wupatki more enjoyable.

KEEP AMERICA BEAUTIFUL

INTRODUCTION

Spend as much time in the ruin as you like. All we ask is your cooperation in **keeping off the walls and not removing pottery fragments, rocks, plants, or other material from the area.** Thank you and **PLEASE STAY ON THE TRAIL!**

Wupatki Ruins Trail

Below you is what remains of Wupatki Pueblo with its "amphitheater" and ball court. At its peak of occupation during the 1100s, the Pueblo, three stories high in places, contained almost 100 rooms and housed perhaps two hundred residents. Wupatki Ruin is the largest pueblo within the boundaries of the monument and lies along what is believed by some to be a major prehistoric trade route leading from Mexico to areas north and east of here. Crumbling remains of other smaller pueblos can be seen on the far side of the wash.

Wupatki Ruin with "amphitheater" in lower right.





Wupatki Ruin, after excavation and some restoration in the 1930s.

Wupatki was occupied from about A.D. 1120 to A.D. 1210 by a group of people we call the Sinagua (see-NAH-wah, meaning “without water”). This prehistoric society was located around the San Francisco Peaks area and southward into the Verde Valley. Wupatki National Monument also contains cultural evidence of another prehistoric group, the Anasazi (ah-nah-SAH-zee, meaning “ancient ones” or “ancient enemies”) who primarily occupied a much larger area north and east of Wupatki. Architectural and pottery influences from the Hohokam and Cohonina groups are also present.

Initial excavation of Wupatki Ruin was begun by the Museum of Northern Arizona in 1933-34 and was continued by the National Park Service in 1941-42 and 1952-53. The picture above shows Wupatki as it appeared after excavation and partial restoration in the 1930s. Since then National Park Service policy has evolved and the present policy is to stabilize ruins in their existing state rather than reconstructing them. What is your opinion of reconstruction versus stabilization?

2. Ephedra — “Mormon tea” (*Ephedra viridis*). This edible plant has been used historically, and perhaps prehistorically too, by native peoples as a mildly stimulating tonic and for medicinal purposes. The beverage is made by steeping green or roasted stems. Ephedra is also used by Navajo weavers to produce a pale green dye.

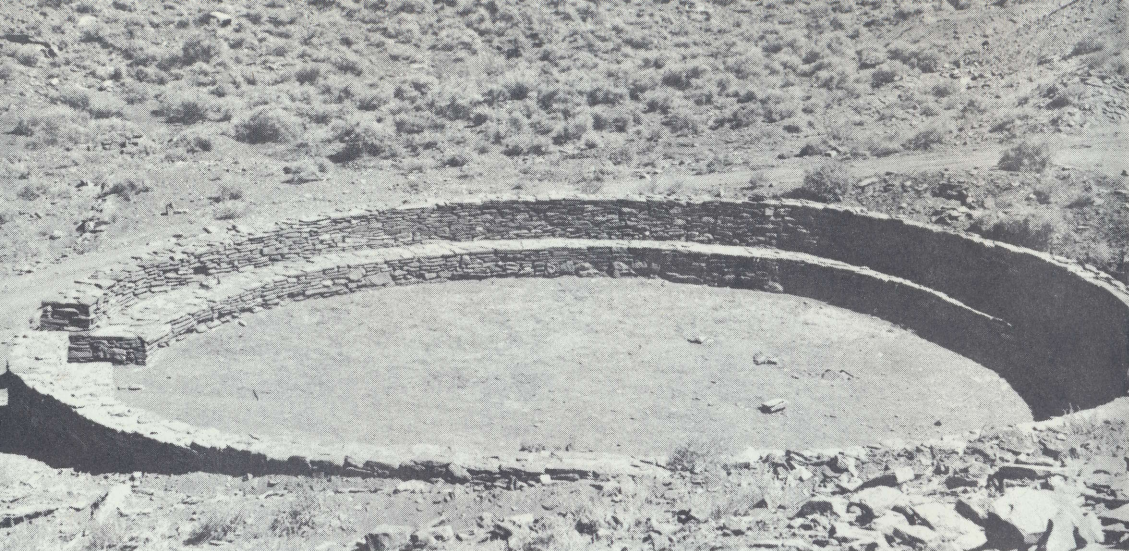
3. The banded Moenkopi sandstone all around you developed from windblown sand dunes and silt layers in a sea millions of years ago. In some of the rock, ripples formed in shallow water near the water’s edge are still evident. Notice how the stone breaks naturally into block shapes, making it ideal as building material.

4. Fourwing saltbush — “Chamiza” (*Atriplex canescens*). Saltbush can grow in soils with high salt content. The salt is absorbed into the plant through its roots. Consequently the leaves of the plant can be used as a flavoring for foods, and the parched, ground seeds make a tasty meal or flour. Even ash from the plant is used in Hopi cooking.

5. The iron beam above you supports the upper walls. The original timbers have deteriorated over the centuries.

Pole-supported wall before repair, above you at Stake 5.





The "amphitheater"

The Sinaguan people made the most of their natural surroundings as is shown by the way the rock outcrop is incorporated into the building's construction. In addition to providing a solid foundation to build upon and against, the rock mass acted as a passive solar heat source. Heat from the sun, absorbed in the daytime, helped warm the rooms through the night.

Like many pueblos, Wupatki was built by accretion. The first rooms were built into the bedrock on the east side. As the population grew, the rooms above were added. Inner, older rooms were ventilated with a series of small openings like those in the wall above the stone-lined trench. Sometimes the inner rooms served as storage areas for beans, corn, and other foodstuffs.

6. This is a typical pueblo room with a small storage bin in the rear. The metate (meh-TAH-tay) and mano (mah-no) were, and are still, used by Indians to grind corn.

Many of the conclusions we have drawn about prehistoric use of these implements come from observing today's pueblo dwellers. Often corn-grinding is a communal activity with several women joining together for the task. Several metates are used: coarse-grained rocks are used for preliminary grinding, and fine-grained rocks for final grinding.

The small rectangular, stone-lined depression in the center of the floor was the firepit used both for cooking and to heat the room.

7. The long stone-lined channel toward the front of the room served as a ventilator. The opening was at floor level in the cliff wall to your right. The upright slab of stone at the end of the ventilator trench deflected incoming air so that the draft would not pass directly across the firepit which was usually situated in the center of any room used as a living space.

This type of ventilation is not commonly found in Sinaguan ruins. It is one of the examples of cultural overlap with the Anasazi Indians mentioned at Stop 1.

8. The "amphitheater" or "dance plaza" lies below you. There are new theories developing which suggest the amphitheater may have been a kiva, though no evidence of a roof has been found. Also, ceremonial features such as the sipapu, or place of emergence, are lacking. For these reasons, there is doubt as to the function of the "amphitheater."

In the foreground is a collapsed wall that fell intact.



9. This is how the ruins looked prior to excavation. Notice how large sections of the walls fell intact with individual stones still retaining their original relative positions.

In excavating a room like this one, the most important thing for the archeologist is not how many unbroken pots or burials are found, but where they are found. The exact location of every artifact is recorded with a thoroughness so complete that the room could conceivably be restored to its original unexcavated condition. Context is one of the archeologists' most important tools in drawing legitimate conclusions about prehistoric people. For example, human bones alone might reveal the age, sex, and even the health of the individual, but the context of the original burial, the position of the body, the items buried with it, and where it was located might reveal answers to broader questions about the individual and his society. For this reason all artifacts must be left in place.

10. The large-sized doorway in the wall at this point is not prehistoric. The entryway was remodeled and the room occupied by sheepherders in the late 1800s.

11. The oval masonry ring further down the trail is believed to be a ball court. Ball courts are fairly common in Mexico and Central America and their presence in Arizona adds to evidence of trade and cultural exchange with peoples to the south.

We know very little about the game that was played in this court. However, in the 1500s Spaniards observed the game as it was played in Mexico and carefully described it. The game played here, if similar, was part of a religious ritual.

The ball court, unlike the rest of Wupatki Ruin, was restored and not merely stabilized.

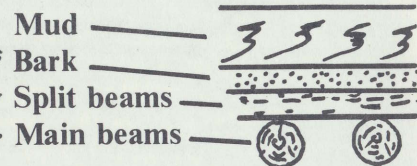
Next to the ball court is a **blowhole**. This interesting geologic feature consists of a large network of small underground cracks that create a natural barometer. When air pressure below ground is greater than that above ground, air blows out of the hole, often with considerable force. When air pressure below ground is less, air is sucked in. A trip to the blowhole is a refreshing treat on a hot summer's day.



12. In adding this room to the pueblo, the builders joined walls to ones already existing. Building stones of the new room could not be interlocked with those of the old room so it was at these points that walls collapsed first. The sequence of pueblo growth can be tied to wall segments and tree-ring information.

In this room seven infant burials were found in slab-lined pits. (Only one pit is visible.)

Again looking to historic peoples for knowledge of their ancestors, we encounter the Hopi belief that the spirit of the deceased child would be reborn in the next baby. It was not unusual to bury children in the parent's home to keep their spirits from wandering too far until they could be given other bodies.



The roof as built before collapse

13. The area in front of you was never roofed and may have been a community patio or work area. Because rooms were small and dark, it is probable that much time was spent out of doors. There was much to occupy the Sinaguan's time—the never-ending task of corn-grinding; constructing sandals, twine, and mats from yucca fiber; fashioning tools from stone and bone; crafting jewelry from shell and minerals acquired in trade; forming clay pots and utensils which were then painted and fired.

14. In this room the original builders took advantage of two natural rock walls which eliminated construction of two sides of the room. The lower portion was filled 5 feet (1.5 m) deep with trash before the first floor was laid.

Original timbers are still in place above the opening in the rear wall. Holes for beams that supported the second story are visible in the side walls. A considerable number of beams were recovered during the excavations at Wupatki,

and the study of this material has contributed to the tree-ring method of dating, the study of prehistoric environmental conditions, pueblo development, and contributed to a regional chronology of events.

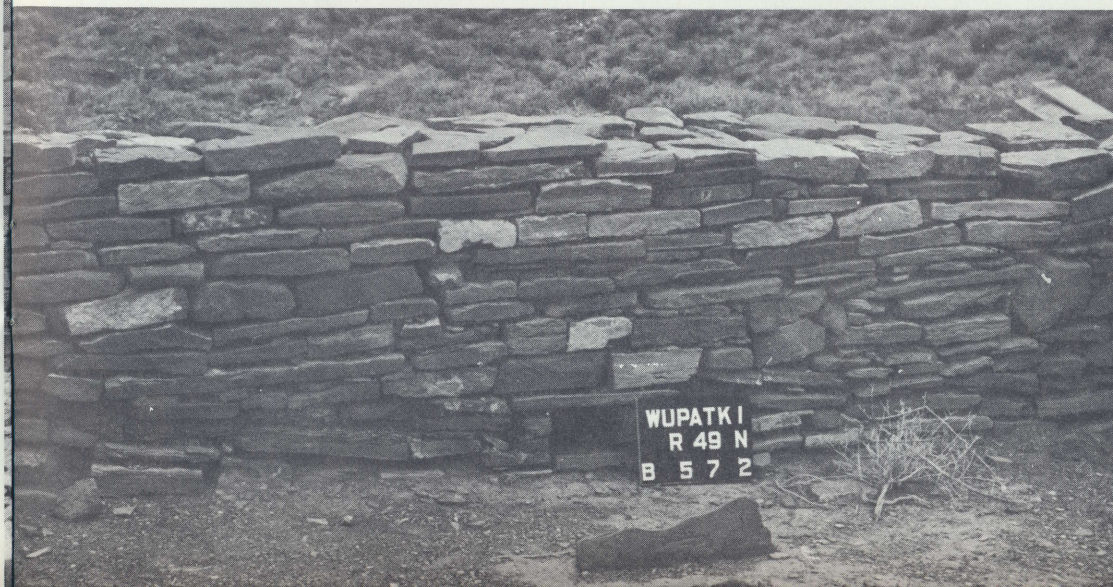
Most of these beams were of ponderosa pine and would have to have been carried considerable distances.

15. The sloping ground all along this side of the ruin is a rubbish heap. It is from trash deposits such as these that archeologists are able to obtain a great deal of information about material developments and changes in the history of the people who lived in these villages.

Again, it is context that is of key importance. For example, shells or parrot burials found at a certain level in the trash heap might be an indication of the beginning period of trade with people to the south. The different styles of pottery in succeeding layers reveal stages of progress in that art. The amount of food trash in each layer, such as corn cobs or yucca cuds (chewed wads of fiber from the yucca plant), could give information about diet and the patterns of feast and famine.

If we don't know where it came from, however, little can be learned from a corn cob or a copper bell.

Room with firepit with a deflector between it and ventilator in wall.



16. The two beams at the rear of the room above you are the original roof beams and have been in the ruin almost 800 years. Above them once lay cross pieces forming the next layer, on top of which was placed grass or bark and then mud or clay to complete the roof.

Much of the original timber left in Wupatki Ruin was removed during historic times to be used as firewood by people who knew nothing of tree-ring dating and did not appreciate the value of the ancient timber.

The T-shaped doorway above you is quite common in Southwestern ruins. One possible reason for this shape was that in the winter a blanket, a skin, or a mat could be hung over the larger opening leaving the lower, smaller one free to admit air.

17. These three small rooms have been excavated. They were originally covered by a dirt roof at about the height of a man. The entrance to these rooms, as well as all other ground floor rooms in the pueblo, was through a hatchway in the roof, which also served as an escape for the smoke from the firepit.

In the end room is another example of a ventilator opening going through the wall, and a vertical slab (deflector) placed to keep the draft of fresh air from blowing firepit sparks around the room.

This is the last stop on the trail. On your way back, please return this booklet, or, you may purchase it for 50 cents.

EVERY LITTER BIT HURTS

GENERAL INFORMATION

Sunset Crater, 18 miles (29km) south is the youngest of approximately 400 volcanoes located in the Flagstaff region. It is one of the few prehistoric volcanoes in the world that we can accurately date. When it erupted it covered 800 square miles (2080km), including the Wupatki area, with black volcanic ash.

This eruption took place *before* the masonry pueblos in this region were built although there were Sinaguans living in pit houses in the area at the time.

The main concentration of people in the Wupatki area took place between A.D. 1100 and 1200 not long after the initial Sunset Crater eruption of A.D. 1064. (The volcano was actually active for over 200 years.)

How much the volcano and its resultant ash layer influenced the population of the area has long been questioned. The rate of growth at Wupatki Ruin following the eruption is uncertain. There was a great deal of building taking place in the mid 1150s-1160 based on tree-ring evidence. The volcanic ash was not fertile but may have increased soil productivity by retarding the evaporation of valuable soil moisture. Other archeologists believe that instead of a great influx of people from all over the southwest, the Sinaguan people already here became more culturally cosmopolitan because of increased trade, and population increased due to a combination of factors that made life a little easier.

By the mid-1200s Wupatki was abandoned. The reasons for this, too, are cause for much speculation. Did the ash layer blow away, making the soil unable to hold as much moisture? Droughts occur periodically now. The desert environment certainly would have been strained in supporting a large population.

Citadel Ruin



During the summers of 1981 through 1987 a comprehensive site survey of Wupatki National Monument was conducted by a National Park Service archeological team. The survey took seven summers and involved walking the entire monument and recording with maps and photographs all structures and other evidence of humans such as rock pile field systems and markers, check dams, and historic dumps. Using all the refined technology presently available to the archeologist, the information is being processed and conclusions being drawn. At that point many of our questions about the Sinagua and Anasazi of Wupatki may be answered. Quite possibly, along with answers will come new and even more puzzling questions.

The Sinagua were not the last people to pass through or use the Wupatki area. Boulders and cliff faces bordering the monument are richly inscribed with Hopi carvings as well as those of prehistoric man, and this area is believed to be along an old Hopi trade route. The Navajo, some of whom still dwell within the monument, moved into the Wupatki region with their sheep in the mid 1800s. Spaniards passed through the general area in the late 1500s and in 1851 an illustrator for the Sitgreaves expedition drew Wupatki Ruin as it looked then.

Wukoki Ruin



Lomaki Ruin

In 1924 the area was declared a national monument and now 35,253 acres are under the protection of the National Park Service to protect for all generations the archeological treasures of Wupatki.

Besides the Wupatki Ruin, four other ruins are open to the public. Citadel, Nalakihi, and Lomaki are north of the Visitor Center along the loop road. The three mile paved road to Wukoki Ruin is located just south of the Visitor Center. None of these other ruins is as large as Wupatki, but each is unique and worth visiting.

ADDITIONAL POINTS OF INTEREST

This region is one of the most interesting archeological and scenic localities in the United States. Sunset Crater National Monument is 18 miles (29km) south of Wupatki National Monument along the loop road. Twenty-one miles (34km) farther south off I-40 is Walnut Canyon National Monument, a beautiful setting for hundreds of homes of another group of Sinaguan people who built rooms in natural alcoves of the canyon. Even farther south, in the Verde Valley, are other Sinaguan sites — Tuzigoot and Montezuma Castle National Monuments (the latter including Montezuma Well). Surrounding each of these archeological areas is the unparalleled scenery of canyon country.

Southwest Parks and Monuments Association
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the education and scientific activities
of the National Park Service. As a nonprofit organization
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