

Trail to

CITADEL - NĀLĀKIHU

(Nah-LAH-Kee-hoo)



PRICE 10 CENTS
IF YOU TAKE THIS
BOOKLET HOME

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

WUPĀTKI NATIONAL MONUMENT

36 MILES N. E. OF FLAGSTAFF, ARIZONA

NATIONAL PARKS AND MONUMENTS

Wupatki National Monument is one of 180 areas administered by the National Park Service, United States Department of the Interior. These include magnificent areas set aside for their scenic, scientific, historical values, and they belong to you and are a part of your heritage as American citizens.

The National Park Service has the responsibility of preserving the Parks and Monuments in their natural, unspoiled condition and of making them available for your enjoyment in such a manner as to leave them unimpaired for the enjoyment and inspiration of future generations. In order to achieve this high purpose, such destructive activities as woodcutting, hunting, grazing, mining and even flower-picking are prohibited. We hope you will join with us in protecting Wupatki National Monument by taking only pictures and inspiration, and leaving only footprints and goodwill.

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.

Nalakihu as seen from the top of Citadel Ruin.



CITADEL-NALAKIHU TRAIL

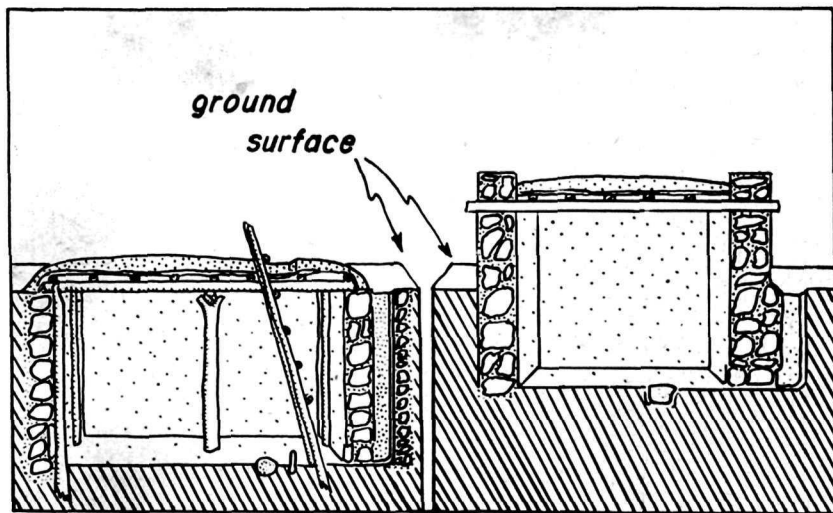
The cover of this booklet depicts an artist's conception of a ghostly restoration of Nalakihiu ruin at the foot of Citadel Butte. And over all floats an owl on silent wings — to symbolize the apparent pre-occupation of this tribe with the bird, which may have had some significance to the local people.

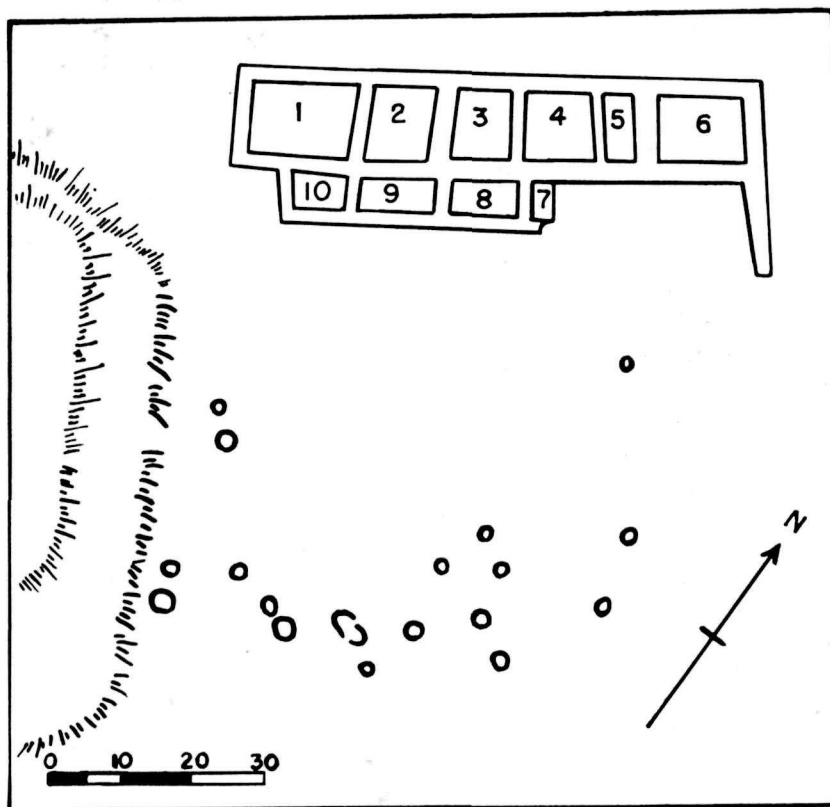
This booklet will guide you through Nalakihiu (nah-LAH-kee-hoo), the small excavated surface pueblo near the parking area, and the Citadel, the large fortified, unexcavated structure on top of the butte. The trail is short and will lead you around to the rear of the Citadel, passing a large limestone sink, and to the top of the butte, where you may obtain a magnificent view of the surrounding country and see many other ruins from this vantage point. The numbered stakes on the trail correspond to the numbered paragraphs in this leaflet, which will assist you in your understanding of this area and its early people.

STAKE No. 1. This unexcavated, rectangular pit house structure was of a type used by some of the inhabitants of the area prior to 1125 A. D.

Surface masonry architecture was not adopted by this tribe (archeologists call them the Sinagua—see-NAH-wah) until the early 1100's at which time their neighbors to the north, a tribe which scientists named the Anasazi (the Old People), introduced above ground masonry structures to this region.

Reconstruction of two types of pit houses found in this region. Note the two methods of roofing and the ventilator at right.



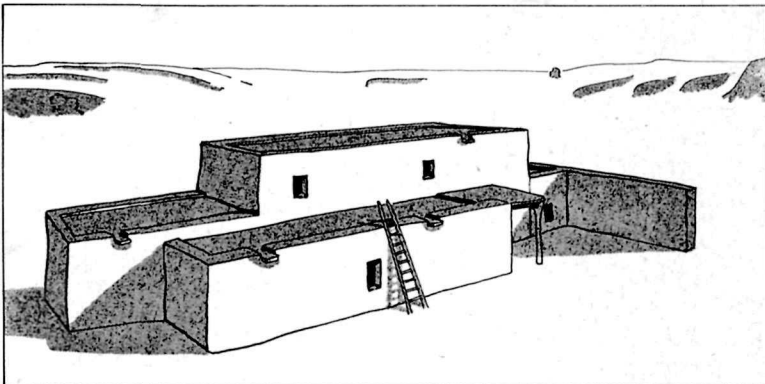
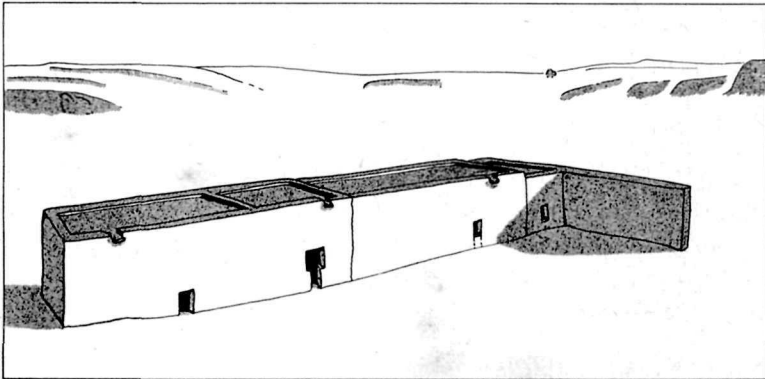
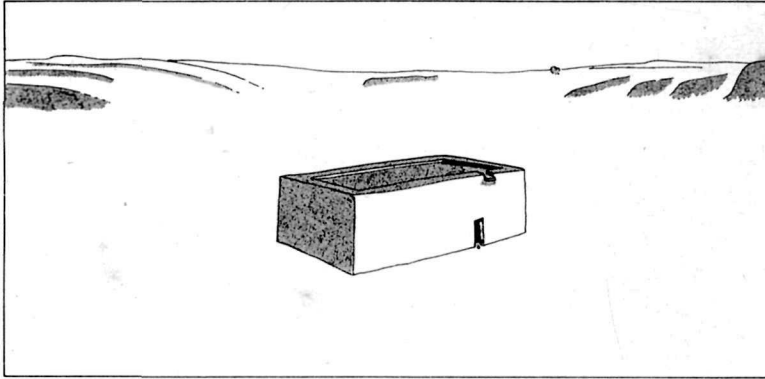


Ground plan of Nalakihi.

STAKE No. 2. Nalakihi is a Hopi word meaning "Lone House" or "House Standing Alone." This pueblo had 10 rooms on the ground floor, and 3 or 4 more rooms which formed a second story, providing a home for about 25 to 30 inhabitants.

A charred roof beam of Ponderosa Pine, lying on the floor of the first room, gave a tree-ring date of 1183 A.D., indicating that this little pueblo was built in the late 1100's. Dates of 1192 and 1260 have been obtained on wood from the Citadel above which would cause us to believe that both pueblos were built at approximately the same time.

By observing how the walls of various rooms butt against each other we can deduce that the rooms at the secondary doorway constitute the oldest part of the pueblo, because these walls were erected at one time and the other walls butt against them. When these three rooms constituted the whole pueblo, it was probably a one-family house.



Three possible constructional stages through which Nalakihi may have passed. (Hatchways are omitted and drains are merely guesswork.)



Metate (or mealing grindstone) resting on collapsed roof material in Room 1. There is a mano, or handstone, in it.

The three rooms in front of Nalakihi had no firepits and apparently were used for storage. The same applies to rooms 5 and 7. The remaining rooms had firepits and other features indicating they were dwelling rooms, such as ventilators to bring in fresh air at floor level, deflectors to keep draft of incoming air off firepits, and in room 4, loom holes to anchor the lower horizontal bar of a vertical loom.



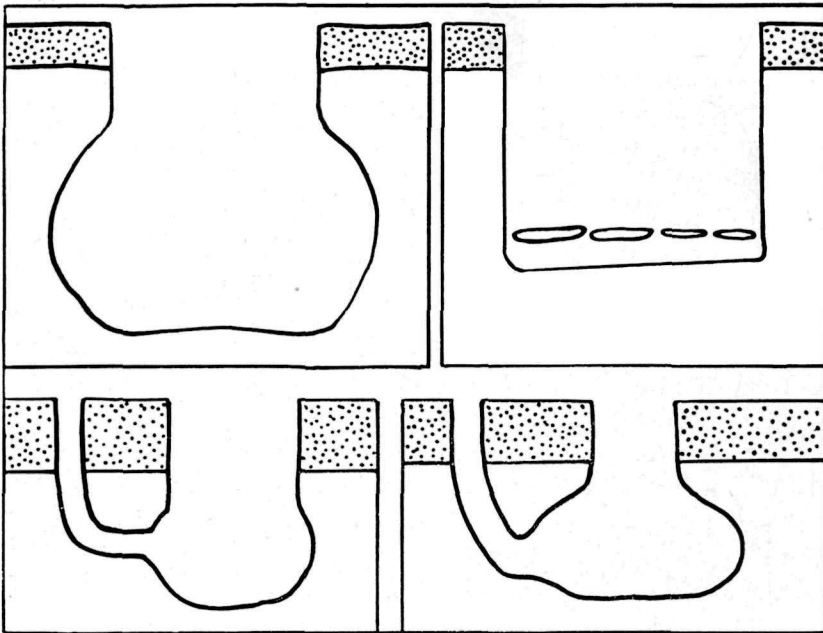
Arrangement of metates (grinding stones) found on floor of Room 1.

STAKE NO. 3. (*Please enter inner room*). Roofs in Nalakihi had a main beam spanning the room's shorter axis, with the rafter poles crossing it. Over these, narrow wooden shakes and sometimes stone slabs supported another layer of reeds, branches, bark, or grass, and three or four inches of clay. Two collapsed roofs were found in each of four rooms so we know a second story once existed over the central portion of the pueblo.

Note the T-shaped doorway through which you passed and also the occasional lines of black volcanic rock in the walls which probably were not for decoration because some courses in the building were covered with plaster.

STAKE NO. 4. You are now standing on the upper of two terraces. Exactly what they were used for we are not sure, but they may have been "kitchen gardens" similar to those in use today in some of the Hopi villages.

Below the terraces to the right of Nalakihi, archeologists discovered an unusual group of 6 burials and 16 storage, roasting or burial pits. Most of the pits were jar-shaped, some had vertical sides, and there were two pit ovens with flues, sort of teapot-shaped, with the spout actually being the flue. Three of the six burials were those of infants in shallow pits, some lined with stone slabs. Only a bowl or a few sherds (pieces of broken pottery) were placed with them for grave offerings. These pits have been backfilled and are not visible today.



Cross-sections of various pits near Nalakihi.

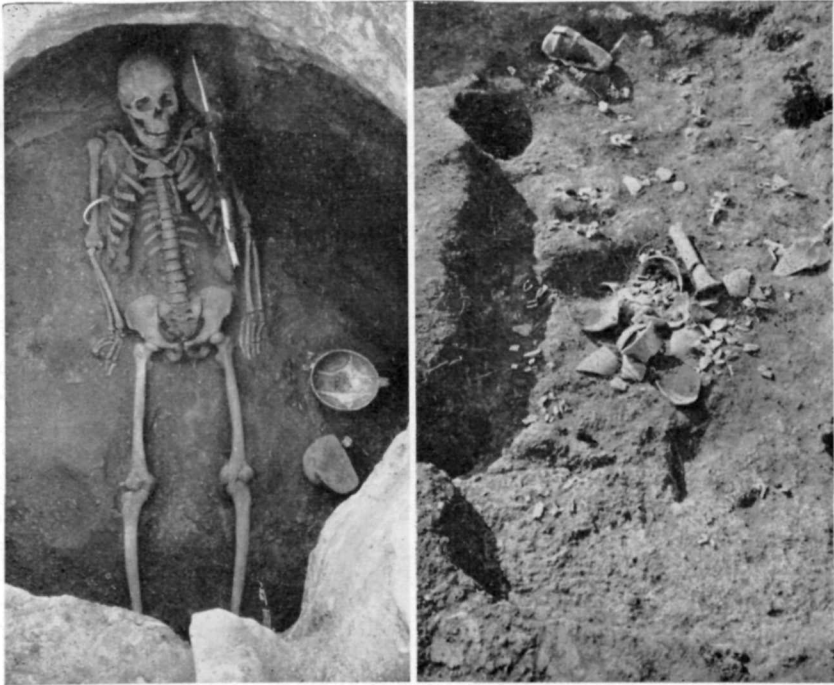


Shellacking bones of a child burial (No. 6) found in Pit 14.

The Sinagua buried their dead with the body extended full length while the Anasazi buried them in a flexed position with the knees drawn up toward the chest.



Pits 9 and 10 in which were found a few sherds, and bones of American Raven, Mountain Sheep, and Mule Deer.



Left—the burial in the jar-shaped pit. Portions of the full-length wooden staff are along his left side. Right—the cremation burial showing the four post holes and broken pottery in a pit in the middle.

The people who used these pits may have placed religious significance in owls, for only owl bones were found here. Winona Ruins south of here along U. S. Highway 66 produced only hawk bones.

STAKE NO. 5. You are standing in a circular ring of volcanic rock which may be a room. On the slopes of Citadel Butte are several similar round or rectangular outlines, none of which have been excavated. There is another just above you, and several below.

STAKE NO. 6. The structure above is a fortified pueblo built on a small remnant butte of volcanic origin. Note the loop holes. Through the higher of these openings defensive warriors could shoot with bow and arrow. The lower ones at floor level were air vents.

The black rock around you is basalt, formed by the cooling of molten lava. Its color is due to the presence of iron minerals.

STAKE NO. 7. The valley below was the farming area used by the early inhabitants of not only the Citadel and Nalakihi, but of many other villages, the ruins of which you may observe on the surrounding mesas. How many can you count? There are at least eight visible.



The Citadel, as seen from the west.

STAKE NO. 8. Note the way the walls of the Citadel follow the rough outline or contour of the volcanic base upon which the structure is built. Again the loop holes are quite evident. The structure was probably two stories high on this side, which exhibits the best example of the masonry at this site.



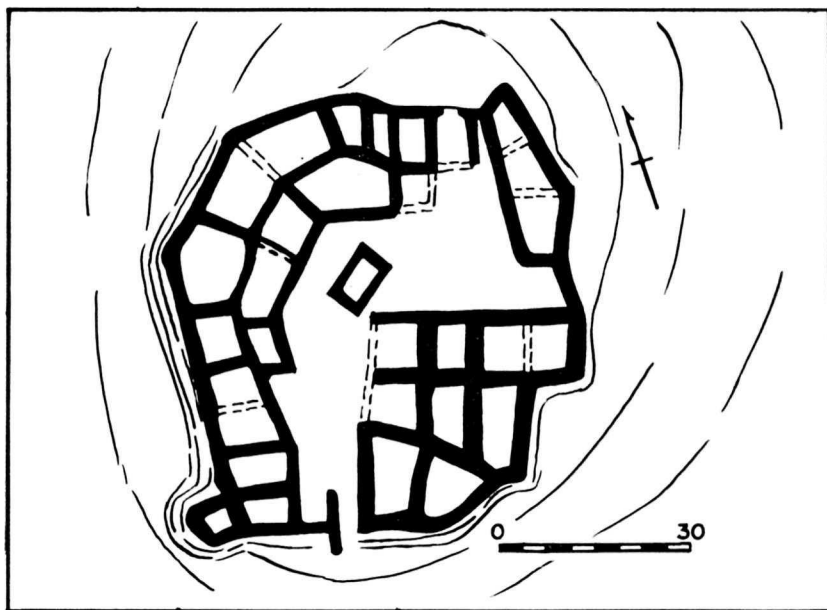
Citadel Sink with the San Francisco Peaks in the background, as seen from Citadel Ruin.

STAKE NO. 9. This limestone sink in the foreground was formed when the roof of a cavern in the Kaibab Limestone collapsed, probably plugging the outlet and allowing a pond to form. There is another sink 2 miles to the south, and since ruins are clustered around its edge also, we believe these sinks held water which influenced the builders to construct dwellings at these points. The thick Kaibab Limestone forms the greatest portion of the walls of the sinkhole. It is stained by seepage from the overlying red Moenkopi sandstone, a thin layer of which can be seen at the base of the black lava which forms the surface.

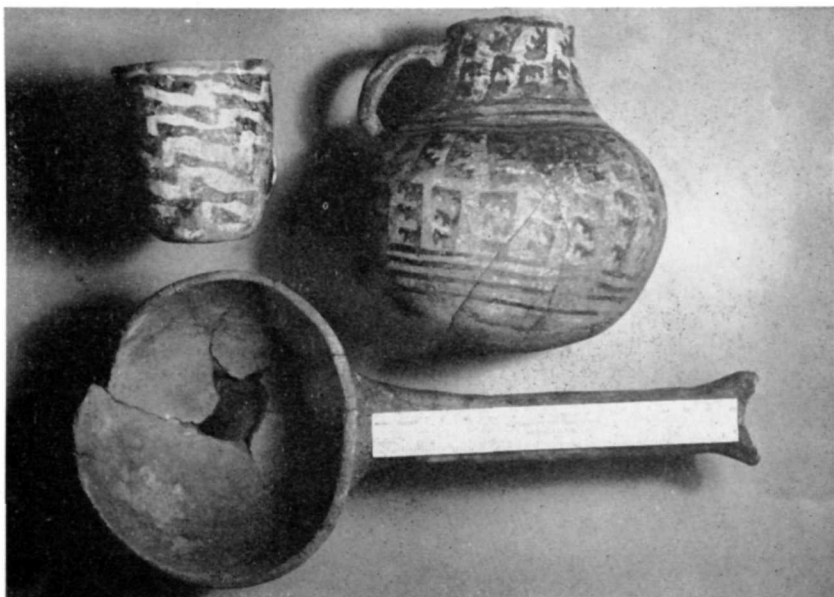
Directly across the sink, high on the wall and near the white markings, is a nest occupied each year from December to June by a pair of Golden Eagles. From February to June a pair of eaglets usually can be observed with the use of field glasses. All National Park Service areas are game sanctuaries where you may observe all forms of life in their native habitats with minimum interference by man.

STAKE NO. 10. You are now entering the Citadel by an entrance utilized by the Indians of yesteryear. Note the loop hole guarding this entrance.

STAKE NO. 11. This ruin has never been excavated. It might tell a story of peaceful farming people finding it necessary to defend themselves from neighboring tribes. Around the depression in the middle there is space for an estimated 30 rooms; the outlines of some can readily be seen. Approximately 50-60 persons probably lived in this village.

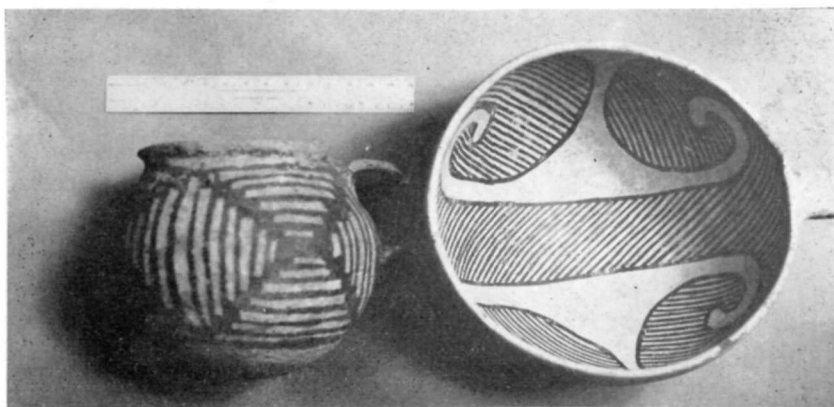


Ground plan of the visible walls of the unexcavated Citadel.

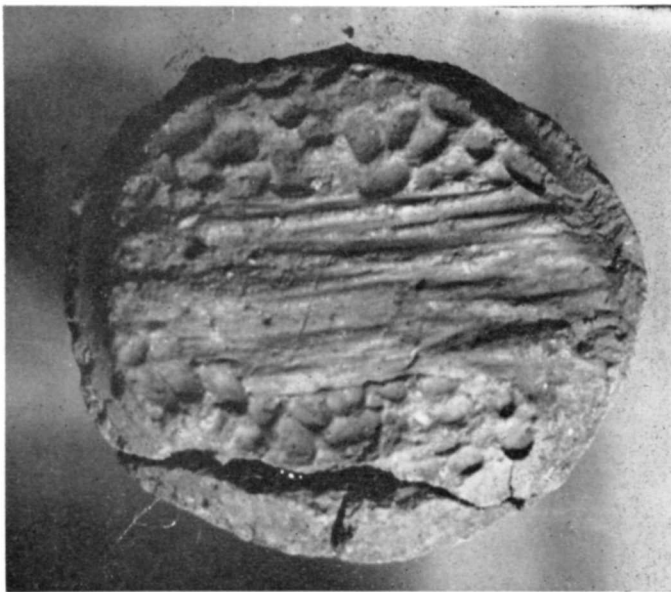


Some of the pottery from the cremation burial; a mug, a pitcher, and a ladle.

Most of the broken pottery found on the Citadel's slopes seems to be of the types made by the Anasazi, a prehistoric tribe which once lived to the north of here. Nalakihi's pottery, however, was only one-third Anasazi, the other two-thirds being of the Sinagua and Prescott tribes. The latter lived to the south and west. Different people who were drawn to this region by the good farmlands created by the cinder cover that fell with the eruption of Sunset Crater in 1064 A. D., lived together as neighbors in this region, thus accounting for the different types of pottery in the ruins.



Black-on-white pitcher and bowl found with the burial of the man in the pit.



Clay pot lid, showing imprints of beans and corn husks.

STAKE NO. 12. The map in the easel display will give you an idea of the great number of ruins, many of them of peculiar ground plan, found in this general vicinity.

Almost all of the dwellings were occupied for only a short period. When the winds finally duned up the black cinders and blew it off into the arroyos and the springs dried up, the people had to move to a more productive location to grow their crops. Present evidence suggests that the Anasazi moved north into the Tsegi Canyon country while the Sinagua moved south into the Verde Valley and east to Chavez Pass near Winslow by the middle 1200's.

STAKE NO. 13. You can see why the early people utilized this vantage point for the construction of a fortified pueblo. Today, we can thank them for a magnificent view of the surrounding country. In the distance can be seen the San Francisco Peaks, O'Leary Peak, Sunset Crater, Painted Desert, Gray Mountain, and numerous volcanic cones, remnants of the San Francisco volcanic field, over 2 million years old.

The structures you see from this point represent only a few of the more than 800 sites found within Wupatki National Monument. The largest ruin in this area is Wupatki ruin, 9 miles to the southeast. Wupatki, which has been excavated, housed about 250 persons during its period of occupation. A visit to Wupatki is very much worth your while.

STAKE NO. 14. We hope you have enjoyed this trail. *Please Return This Booklet To The Register Stand Before You Go, Or You Can Purchase It By Dropping 10 Cent In The Coin Slot.*

The National Park Service invites you to come again!

GENERAL INFORMATION

Sunset Crater is the most recent volcano among the 400 in the Flagstaff region, and is located 11 miles south of here. It is one of the few prehistoric volcanoes in the world that we can accurately date, (another being Mt. Mazama, where now is Crater Lake, Oregon), and one of the few that had a profound effect upon people living in the area. When it erupted it covered almost 800 square miles, including the Wupatki area, with fine black volcanic ash. This eruption took place *before* the masonry pueblos in this region were built.

When the eruption was over, a few individuals probably returned to this area and found, to their surprise and pleasure, they were able to mature crops in locations where they hadn't been able to farm before. The thin layer of volcanic ash acted as a moisture-retaining mulch; the people could plant their seeds in the underlying soil and the cinder cover would hold enough moisture to insure them a good harvest.

When this word spread around, it created a great land rush, the only one we know of in the Southwest. Large numbers of Indians from all over this part of the Southwest swarmed into the region of the cinder fall to take advantage of the new farming land. The Hohokam came from the south, the Mogollon from the southeast and the Anasazi from the north.

The main concentration took place between 1100 and 1200 A. D., and during that time the area between the San Francisco Mountains and the Little Colorado River was inhabited by perhaps 8,000 Indians.

The abandonment of the area is almost as interesting as the occupation. Tree-ring evidence indicates that from about 1215 to 1300 A. D. there was a long drought of varying intensity which culminated in the great drought of 1276-1299. Winds accompanying the drought turned the area into a dust bowl, moving away the moisture-retaining cover of cinders that the people had depended upon for their farming. Depopulation set in as farming acreage decreased.

The Anasazi element apparently moved north or east into the Tsegi Canyon or Hopi country, while the Sinagua moved south into the Verde Valley and east to the Chavez Pass region near Winslow. By the mid-1200's Wupatki probably was completely abandoned.

Wupatki National Monumnt, a unit of the National Park System, is one of 180 areas administered by the National Park Service, U. S. Department of the Interior.

The traveling public is becoming increasingly aware of the National Monuments, which have received less publicity than the great, well-known National Parks, yet which possess extremely interesting features.

Many of these are in the Southwest; we hope you will take the opportunity to visit one or more of them on your trip.

*Administered as a group by the General Superintendent,
Southwestern National Monuments, National Park Service, Box 1562,
Gila Pueblo, Globe, Arizona:*

- IN UTAH:** Arches National Monument, Moab
Natural Bridges National Monument (c/o Arches)
Rainbow Bridge National Monument (c/o Navajo)
- IN NEW MEXICO:** Aztec Ruins National Monument, Aztec
Chaco Canyon National Monument, Bloomfield
El Morro National Monument, El Morro
Gila Cliff Dwellings National Monument (c/o Gen'l. Supt.)
Gran Quivira National Monument, Gran Quivira
- IN ARIZONA:** Canyon de Chelly National Monument, Chinle
Casa Grande National Monument, Coolidge
Chiricahua National Monument, Dos Cabezas
Coronado National Memorial, Star Route, Hereford
Montezuma Castle National Monument, Camp Verde
Navajo National Monument, Tonalea
Sunset Crater National Monument (c/o Wupatki)
Tonto National Monument, Roosevelt
Tumacacori National Monument, Tumacacori
Tuzigoot National Monument, Clarkdale
Walnut Canyon National Monument, Rt. 1, Box 790, Flagstaff
Wupatki National Monument, Tuba Star Route, Flagstaff

Other areas administered by the National Park Service in the Southwest follow:

- IN ARIZONA:** Grand Canyon National Park, Grand Canyon
Grand Canyon National Monument, Grand Canyon
Organ Pipe Cactus National Monument, Ajo
Petrified Forest National Monument, Holbrook
Pipe Spring National Monument, Moccasin
Saguaro National Monument, Rt. 8, Box 350, Tucson
- IN COLORADO:** Black Canyon of the Gunnison National Monument
(c/o Colorado National Monument)
Colorado National Monument, Fruita
Great Sand Dunes National Monument, Box 60, Alamosa
Mesa Verde National Park
- IN NEVADA:** Lake Mead National Recreation Area, Boulder City
Lehman Caves National Monument, Baker
- IN NEW MEXICO:** Bandelier National Monument, Santa Fe
Capulin Mountain National Monument, Capulin
Carlsbad Caverns National Park, Carlsbad
White Sands National Monument, Box 231, Alamogordo
- IN OKLAHOMA:** Platt National Park, Sulphur
- IN TEXAS:** Big Bend National Park
- IN UTAH:** Bryce Canyon National Park, Springdale
Capitol Reef National Monument, Torrey
Cedar Breaks National Monument (c/o Zion)
Timpanogos Cave National Monument, Pleasant Grove
Zion National Monument (c/o Zion)
Zion National Park, Springdale

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which is a non-profit distributing organization, auxiliary to the National Park Service, pledged to aid in the preservation and interpretation of Southwestern features of outstanding national interest.

The Association lists for sale many interesting and excellent publications for adults and children and very many color slides on Southwestern subjects. These make fine gifts for birthdays, parties, special occasions, and many prove to be of value to children in their school work and hobbies.

May we recommend, for instance, the following items which give additional information on Wupatki National Monument and the Southwest?

- ***45. **FLOWERS OF THE SOUTHWEST DESERTS.** Dodge and Janish. More than 140 of the most interesting and common desert plants beautifully drawn in 100 plates, with descriptive text, 112 pp., color cover, paper\$1.00
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- **652. **MONTEZUMA CASTLE ARCHEOLOGY, Pt. 1: EXCAVATIONS.** Jackson and Van Valkenburgh. Technical but understandable report of excavation of Castle A. Appendix on skeletal specimens by Bartlett. Technical Series, Vol. 3, Part 1, 1954. 96 pp., illus.....\$3.00
- **653. **MONTEZUMA CASTLE ARCHEOLOGY, Part 2: TEXTILES.** Kent. Technical study of 60 textiles, fully described and illustrated. Invaluable for archeologists, ethnobotanists and students of textiles. Technical Series, Vol. 3, Part 2, 1954. 110 pp.....\$2.00

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