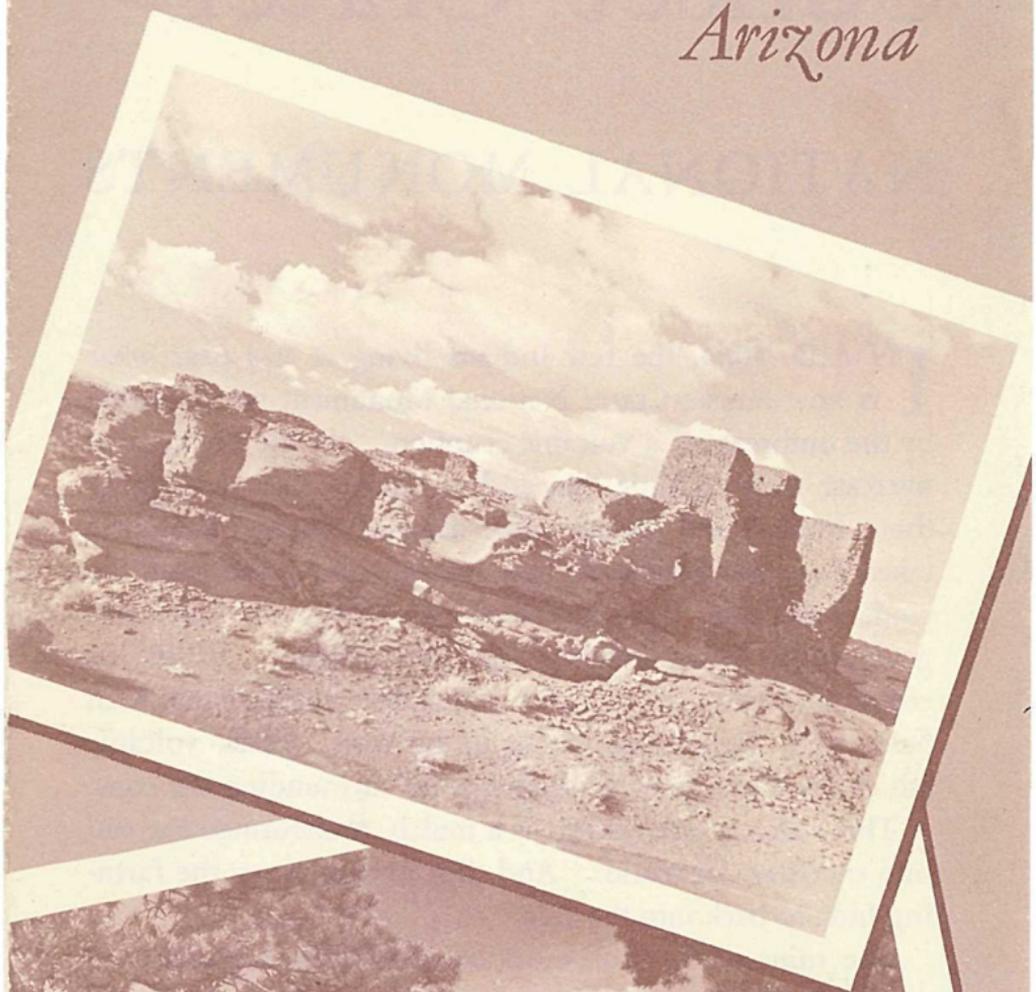


Wupatki and Sunset Crater

NATIONAL MONUMENTS

Arizona



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IN A.D. 1064, the few Indians living at and near what is now Sunset Crater National Monument were startled by the outbreak of a volcanic eruption. As the sky became overcast with volcanic ash, and as cinders started covering their homes and farms, they hurried away. (Timbers taken from the houses of these people—excavated from the cinders and ash—have furnished the evidence by which this geologically recent eruption has been dated.) When the eruption ceased, a new cinder cone 1,000 feet high had been built, with jagged lava flows at its base. Black volcanic ash covered hundreds of square miles surrounding the cone.

This volcanic ash, acting as a mulch, transformed the soil into excellent farmland. And this, in turn, drew the farming Indians back into the area.

The ruins of this post-eruption civilization are now preserved in Wupatki National Monument. The remains of the volcano—the cinder cone and lava beds—are preserved as Sunset Crater National Monument.

What Happened to the Land

Prominent in north-central Arizona are the San Francisco Peaks and the surrounding related volcanic field, together covering some 3,000 square miles. The area is studded with volcanic peaks, cinder cones, and lava flows that represent a long period of volcanic activity. Geologists find evidence that here during the last two million years there was a series of outbursts separated by long periods of inactivity. Some of these eruptions consisted of relatively

quiet outpourings of molten lava, and others were of cataclysmic violence.

About 900 years ago the last of these eruptions occurred as the explosive outbreak that produced the symmetrical cinder cone and rough black lava and cinder area now preserved as Sunset Crater National Monument. Amid constant rumbling and roaring and accompanied by violent earthquakes, fiery chunks of molten lava, cinders, and fine particles of ash were blown from a volcanic vent high into the air. Larger and heavier objects fell back around the vent; lighter materials were carried away by the wind. Higher and higher grew the mass of smoking black rocks and cinders thrown out by the volcano. Ejected stones rolled down the steep slopes, enlarging the base of the growing cone. Prevailing southwesterly winds caused more of the ejected material to fall on the northeast side, building that part of the cone higher.

Following this period of activity, the eruption slackened, and explosive outbreaks were interspersed with outpourings of molten lava from vents near the base of the cinder cone. Amid steaming spatter cones and crusted lagoons of molten lava, the still-smoking cone towered above a land blackened

with a widespread layer of cinders and ash. Sunset Crater, youngest member of the San Francisco Peaks Volcanic Field, had been created.

For years, gradually lessening activity continued, in the form of hot springs and emission of vapors from fumaroles about the vent. These vapors deposited minerals around the crater rim and generated chemical reactions that stained the cinders, producing colors that cause the summit to glow today with the hues of a perpetual sunset.

What Happened to the People

About A.D. 600, a few farming Indians moved into the area near the San Francisco Peaks. These Indians lived in pit houses—roofed pits—which were very efficient dwellings in this climate, because they could easily keep heat in or out, whichever was needed. Not many of these people could live here, however. Because of the lack of moisture in the soil, only the few very best areas could be used for growing crops. But some people were living here at the beginning of the eruption.

Sunset Crater and Bonita Lava Flow.



Citadel Ruin.

The volcanic eruption, of course, had a great effect on the lives of the people. It forced those living close to it to flee. But it also spread fine volcanic ash over an area of about 800 square miles. The porous ash layer formed an excellent mulch that trapped moisture in the soil and turned into a blessing what surely had been regarded a catastrophe. The Indians soon discovered that corn could be raised where plants previously had shriveled and died from lack of water. Word of this newly excellent farmland filtered out over the Southwest. The prehistoric land rush was on.

The area became a melting pot of cultures. Indian families came from all directions. The Pueblo dry farmer from eastern and northern Arizona mingled here with the Hohokam irrigation farmer from southern Arizona. This is the only place at which evidences of this mingling have been found. Influences from the Mogollon groups to the south and east and the Cohonino groups to the west have also been discovered here.

Each tribe came with corn seed and digging sticks to cultivate the cinder soils. As the tribes met and mingled, the differences between them became less and less apparent.

The people developed villages throughout the cinder-covered area. One of the most important and longest inhabited of these was one now called Wupatki, a Hopi word for "Tall House." Its location and size were probably determined by the presence of a spring, one of the few in this arid region. From an insignificant pueblo of a few rooms, Wupatki grew until it became the largest in the region. During the 1100's, it contained more than 100 rooms, was in places at least 3 stories high, and had a population of 250 to 300 persons.

To one side of the Wupatki Ruin, protected from the prevailing winds, was an open-air amphitheater which possibly was used for public ceremonies. In the valley below was a ball court of stone masonry, one of two found in the vicinity. Little is known of the game that was played there.

Remains of ball courts found in southern Arizona have been dated to the period before A.D. 1150, and the idea was probably brought to Wupatki by migrants from that region.

During the 1200's people started leaving the area, and by 1300 no one remained. They left mainly because the cinders had been stripped from the soil by the winds that had originally spread them there and because of the many dry years in the 1200's, ending with the great drought of 1276-99.

The Monuments Today

Aside from the trees and other plants that have gained a foothold amid the cinders and lava, Sunset Crater probably appears much as it did soon after the eruption. Remains of the hot springs, spatter cones, and other evidences of volcanism look as if they had barely had time to cool. Black cinder dunes, large cinder fields, and the twisted, gnarled, and jagged "slag heaps" of the lava flows create an atmosphere of strangeness.

Wupatki Ruin and Amphitheater.

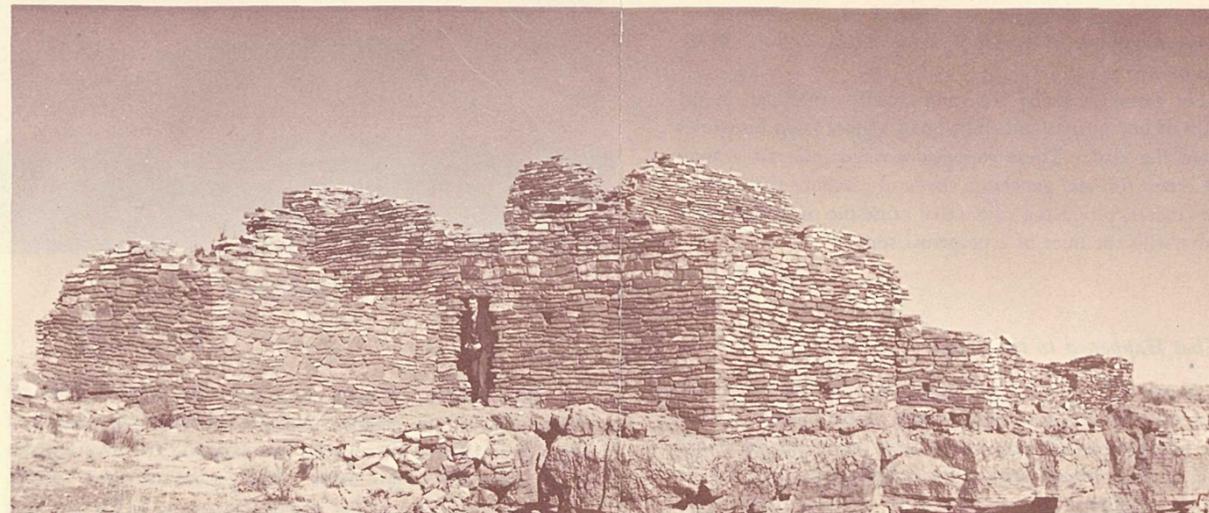
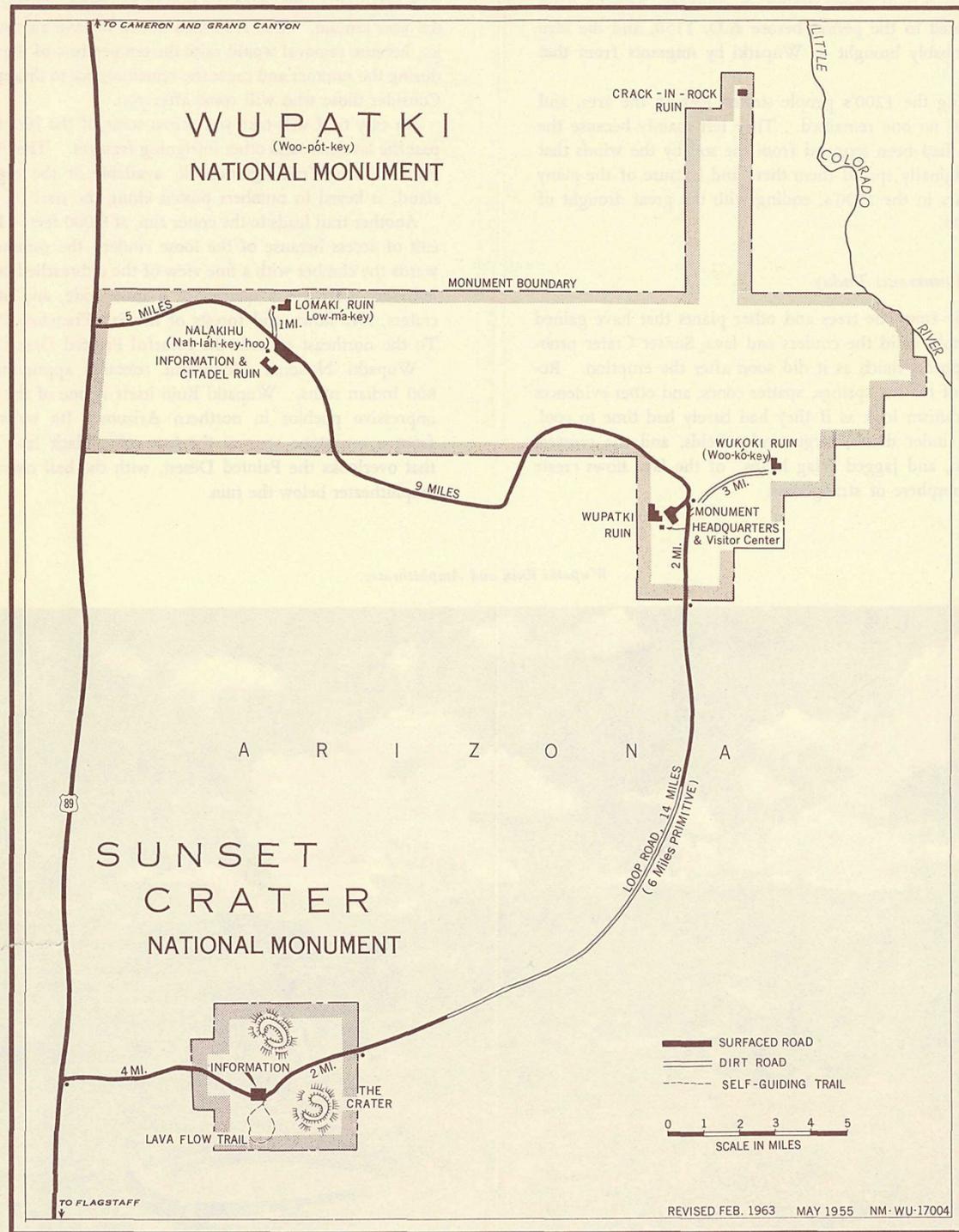


A small lava cave, near the foot of the cone, contains ice the year around. You are asked not to remove any of the ice, because removal would raise the temperature of the cave during the summer and cause the remaining ice to disappear. Consider those who will come after you.

An easy trail will take you across some of the lava flow, past the lava cave and other intriguing features. The "Lava Flow Nature Trail" guidebook, available at the register stand, is keyed to numbers posted along the trail.

Another trail leads to the crater rim, at 8,000 feet. Difficult of access because of the loose cinders, the summit rewards the climber with a fine view of the unbreached crater, 400 feet deep and a quarter of a mile wide, and of the craters, lava flows, and forests of the San Francisco Peaks. To the northeast extends the colorful Painted Desert.

Wupatki National Monument contains approximately 800 Indian ruins. Wupatki Ruin itself is one of the most impressive pueblos in northern Arizona. Its walls rise from a sandstone spur at the base of a black lava mesa that overlooks the Painted Desert, with the ball court and amphitheater below the ruin.



Lomaki Ruin.

Around Citadel Ruin was another concentration of prehistoric Indians. Within 1 square mile there are more than 100 sites, ranging in size from small earth lodges to large pueblos. The Citadel itself, as yet unexcavated, was a fortified apartment house. Probably it was 1 or 2 stories high and contained about 50 rooms. Just below Citadel Ruin is the small pueblo ruin now called Nalakihi, a Hopi word for "House Standing Alone."

Other outstanding sites in the monument are Lomaki and Wukoki Ruins, several fortified apartment houses, and the less accessible Crack-in-the-Rock Ruin near the Little Colorado River. To visit the latter ruin, you must make arrangements with the superintendent, whose office is at headquarters near Wupatki Ruin.

There are self-guiding trails to Citadel-Nalakihi and to Wupatki Ruins. Guidebooks keyed to numbers along the trails are available at the beginning of each trail.

The paved entrance roads to both monuments lead eastward from U.S. 89. The Sunset Crater road is 15 miles north of Flagstaff, and the Wupatki road is 15 miles farther north. Thus it is possible to reach both monuments on paved roads by driving into each from U.S. 89. The two monuments, however, are connected by a road that will take you across 18 miles of cinder-covered hills, along the edge of the Painted Desert, and through several unusual plant and animal associations. Although about 11 miles of this road is unpaved, it is an interesting drive; you will enjoy it if you are accustomed to "back-country" driving. You

should stay strictly on the road, for attempting to drive on the cinders is dangerous.

Uniformed personnel are on duty the year around at Wupatki, and from May to October at Sunset Crater. Roads into Sunset Crater are sometimes closed by snow in winter. The information station at Sunset Crater is 4 miles from U.S. 89. Wupatki Ruin and the visitor center of Wupatki National Monument are 14 miles from the highway.

There are no overnight facilities at either monument. Drinking water is available at headquarters of Wupatki only.

Please Help Preserve These Areas

No fires are allowed in either monument. Please be careful in disposing of cigarettes and matches.

Do not walk on prehistoric walls. This rule is designed for your own safety as well as to preserve the ruins.

You are warned not to remove or deface any of the features of the monument; such action is illegal.

All plants, animals, and geological features are protected by law, as they are in other areas of the National Park System, and they must be left undisturbed for others to enjoy.

Administration

Wupatki National Monument, containing 56 square miles, was established on December 9, 1924. Sunset Crater National Monument, containing 41½ square miles, was es-

tablished on May 26, 1930. Both monuments were established by Presidential proclamation. Elevation at Wupatki headquarters is 4,900 feet; at Sunset Crater, it is 7,000 feet.

Wupatki and Sunset Crater National Monuments are administered by the National Park Service, U.S. Department of the Interior. A superintendent, whose address is Wupatki National Monument, Tuba Star Route, Flagstaff, Ariz., is in immediate charge of both areas.

The National Park System, of which these areas are units, is dedicated to conserving the scenic, scientific, and historic heritage of the United States for the benefit and inspiration of its people.

Development of these areas is part of MISSION 66, a 10-year program to develop and staff the areas of the National Park System so that they can be used and enjoyed by both present and future generations.

America's Natural Resources

Created in 1849, the Department of the Interior—America's Department of Natural Resources—is concerned with the management, conservation, and development of the Nation's water, wildlife, mineral, forest, and park and recreational resources. It also has major responsibilities for Indian and territorial affairs.

As the Nation's principal conservation agency, the Department works to assure that nonrenewable resources are developed and used wisely, that park and recreational resources are conserved for the future, and that renewable resources make their full contribution to the progress, prosperity, and security of the United States—now and in the future.

Cover: Wukoki Ruin and Sunset Crater.

UNITED STATES
DEPARTMENT OF THE INTERIOR



Revised 1963



GPO : 1963—O-678741

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