



Preservation of Tuzigoot Pueblo

Tuzigoot pueblo is an ancient masonry structure located in the Verde Valley of central Arizona. The pueblo consists of 86 terraced ground-floor rooms with an estimate of 25 second and third-story rooms (Hartman 1976:42; Powers and Pearson 2008:75-76). Construction and occupation of Tuzigoot pueblo began during the Camp Verde phase (900-1000/1125 C.E.) and continued through the Tuzigoot phase (1300-1400 C.E.) (Hartman 1976:37). Between 225-450 people may have occupied the pueblo at any given time (Caywood and Spicer 1935; Hartman 1976).

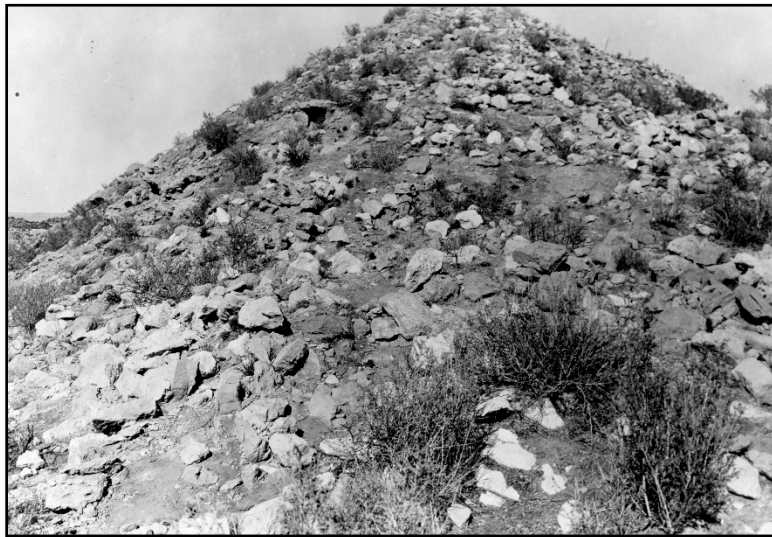


Figure 1: Tuzigoot pueblo prior to excavation, 1933. Photo NPS

Most of the pueblo consists of a block of rooms that stretch 325' along a high ridge overlooking the Verde River. Inhabitants used local basalt river cobbles, red sandstone and limestone held together with clay mortar to construct masonry walls (Caywood and Spicer 1935). Walls are very large, from 18" to 4' in width (Caywood and Spicer 1935: 25), with the thickest walls used to support second and third story rooms. Occupants of the pueblo used the rooms as living quarters,

ceremonial spaces, and storage areas (Powers and Pearson 2008).

The pueblo was initially described in 1896 by Edgar Mearns, an army surgeon and avocational archaeologist from Fort Verde (Powers and Pearson 2008:39). Unlike the nearby Montezuma Castle cliff dwelling, Tuzigoot remained mostly hidden until the 1930s.

Excavation and Partial Reconstruction of Tuzigoot Pueblo: 1933-1934

Tuzigoot Pueblo was originally excavated in 1933-34 under the direction of Louis Caywood and Edward Spicer, two graduate students from the University of Arizona. Funding for



Figure 2: Excavation of Tuzigoot Pueblo, 1933. Photo NPS

the excavation was provided by the Civil Works Administration (CWA), a depression-era program. Out-of-work laborers from the local communities of Clarkdale and Cottonwood were paid to assist Caywood and Spicer with the excavation. The goals of the project included the collection of artifacts and the exposure of ancient walls.



Figure 3: Reconstruction of Group IV at Tuzigoot Pueblo, 1934. Photo NPS

During the excavation, Caywood and Spicer divided the pueblo into six groups, labeled I-VI. Following the excavation, masonry walls were partially reconstructed and rooms in Group IV were completely rebuilt. The rebuilt rooms were intended to show visitors what the pueblo looked like while occupied, but the overall appearance was incongruous with the rest of the ruin.

Additionally, the reconstructed roofs began to leak as early as 1939. Leaky roofs and deterioration caused by powder-post beetles forced the National Park Service to deconstruct group IV in 1942.

Historic Stabilization at Tuzigoot Pueblo

Walls at the Tuzigoot Pueblo require constant maintenance and stabilization to remain standing. Over the last 85 years, 9 major stabilization campaigns have been completed. The materials used by workers from 1933-1998 included large amounts of Portland cement, a material that is very hard. Over time, Portland cement can damage original building stones and cause walls to become unstable. If left untreated, these walls could collapse.



Figure 4: Preservation Mason removing portland cement by hand to preserve the original fabric of the wall. Photo NPS

An Integrated approach to Stabilization

Beginning in 1998, Preservation Masons began removing all the extremely hard Portland cement. Masons use hammers and chisels to remove the old material and replace it with a new mixture of clay, sand and a small percentage of concrete. This mixture is called “soil cement” and creates softer and more breathable mortar joints, protecting original stones and allowing the wall to dry more quickly.

The heavy-handed approach to stabilization used in the past has been replaced with methods that more closely resemble the construction and repair materials used by the original inhabitants. National Park Service Archaeologists and Preservation Masons along with Native American partners have devised new strategies to stabilize the pueblo using a combination of best practices and traditional knowledge. These practices will help to ensure that the Tuzigoot Pueblo is available for future generations to experience and enjoy.

References Cited

Caywood, Louis and Edward Spicer
1935 Tuzigoot: The Excavation and Repair of a Ruin on the Verde River near Clarkdale, Arizona. National Park Service, Berkeley.

Hartman, Dana
1976 Tuzigoot: An Archeological Overview. Museum of Northern Arizona. MNA Research Paper No. 4.

Powers, Robert P., and Nancy E. Pearson
2008 An Overview and Assessment of Middle Verde Valley Archeology. WACC Publications in Anthropology 99. Western Archeological and Conservation Center, Tucson.



Figure 5: Preservation Intern replacing historic concrete mortar with soil cement to stabilize the wall. Photo NPS



Figure 6: Tuzigoot Pueblo, 2019. Photo NPS