

Sensitive sites: UC Research examines preservation of Southwest archaeology in time of tight budgets

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Camp fires built in Kaibob National Forest routinely make use of stones once used for prehistoric pueblo construction. Exposure to the fire's heat makes chemical analysis and carbon dating difficult. Credit: Ryan Washam

When surveying in the Upper Basin of the Grand Canyon National Park in April 2011, University of Cincinnati faculty and students discovered a previously unknown 17-room subterranean pueblo that likely dates back to the 12th century.

For UC anthropology graduate student Ryan Washam, that find – in

which he took part – helped spark his current research in how federal agencies are conducting archaeological and environmental protection and preservation efforts in a time of tight budgets.

Washam, 23, of Florence, Ky., will present a case study of protection and preservation efforts in two locales. He examines such efforts in about one-and-a-half square miles of the Upper Basin of the south rim of the [Grand Canyon](#) National Park, which is managed by the U.S. National Park Service. He also examines protection and preservation efforts in about eight square miles of the adjacent Kaibab National Forest managed by the U.S. Forest Service and the [Department of Agriculture](#).

He will present his case study findings in a paper titled "Archaeology in Distress: Federal Land Management and Vulnerable Landscapes" at the April 3-7 Society for American Archaeology annual conference. His research builds on about 25 years' worth of UC research in the Grand Canyon's Upper Basin.

Using several years' worth of surveys, [satellite images](#) and data, GPS data, [Google](#) Earth data and his own months-long work in the region, Washam found that his study area in the Grand Canyon is being safeguarded and protected. However, that is not the case in his study area in the Kaibab National Forest.

He explained that a number of factors work in favor of preservation and protection of the dense archaeological record within the Grand Canyon National Park including

- An access point that requires visitors to funnel through a single main entrance where interaction with park rangers and other personnel is routine.
- Strict environmental and preservation policies are enforced by

several park rangers and other personnel as well as by tourists themselves, especially those regarding where visitors may and may not go.

- In addition, signage clearly indicates areas that are accessible to visitors: interpretive centers, trails, picnic areas and parking lots.
- Visitors are permitted into the study area for day use only.

Said Washam, "From the moment a visitor enters the Grand Canyon by the main gateway, he or she interacts with the official face of the park in the form of rangers and other personnel. It's clearly communicated to enjoy, view but don't disturb or touch the off-limits protected areas. This is still the case even though budgets have been frozen at a 2009 level."

However, differing policies and fewer available protective resources mean that archaeological sites and finds in Kaibab National Park have greater likelihood for destruction. For instance, evidence abounds that stones and beams used for prehistoric pueblo construction have been routinely – if unknowingly – removed and used for modern outdoor campfires. This exposure to the campfire makes chemical analysis of archaeological remains problematic.

The forest's environmental and archaeological sites are vulnerable for a number of reasons. These include

- No single access point into the forest where visitors must interact with Forest Service personnel. Instead, many roads provide access.
- Extensive wood cutting, hunting, camping, back packing and off-road vehicle use is permitted. All of these activities are in an area where concentrations of archaeological sites are dense, as dense as those found within the nearby Grand Canyon [National Park](#), which increases likelihood that visitors will come into contact

with cultural resources.

- One lone Forest Service ranger and a handful of Forest Protection officers are responsible for overseeing that Kaibab's rules and regulations are followed by visitors. However, due to the multiple access roads into the forest, the preserve's personnel may have little to no interaction with most users and visitors.

For instance, Washam's research points to one wood-cutting area of the forest that encompassed 30 acres of felled trees in 2006. In 2012, that same area encompassed 65 acres of felled trees. Almost half of that increase took place in the last two years.

This matters because when users log (or campers or drivers use) the area, they can inadvertently or unknowingly remove, use or damage historical structures and remains, such as the remains of ancient human habitations. "It dramatically changes the [archaeological record](#) and hinders archaeologists' ability to accurately size up extant cultural resources and ancient behavior," Washam stated.

Provided by University of Cincinnati

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