ANNUAL REPORT: US (AZ) - COCONINO 2017 FIELD SCHOOL

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Students sifting for artifacts

The major objective of this year's field school was to prepare students for a career in Cultural Resource Management (CRM) while conducting a typical small-scale CRM inventory and evaluation project. The field school took place on the Coconino National Forest (Forest) on the outskirts of Flagstaff, Arizona, and was taught by staff from Statistical Research, Inc., one of the foremost CRM firms in the world, and archaeologists from the Coconino National Forest.

The area has been home to people for many millennia and has a rich archaeological record. The region is best known, however, as the homeland of the Northern Sinagua. This prehistoric tradition, centered in the Flagstaff area, was defined by Dr. Harold S. Colton of the Museum of Northern Arizona as the Sinagua culture.

The Sinagua first appeared at about CE 650 as small family groups living in pit house communities near the best agricultural soils, which were highly limited in their distribution and extent. Many early researchers suggested that the apparent population explosion that occurred in the eleventh century resulted from the eruption of the nearby Sunset Crater in the late eleventh century. The cinder fall from these eruptions was believed to have greatly increased the extent of arable land by fertilizing the soils and acting as a mulch to retard moisture evaporation in the dry, thin soils of the region. News of this new farmland purportedly spread throughout the Southwest leading to a prehistoric land rush into the area.

New interpretations, however, suggest that the influence of Sunset Crater and associated migrations have been overly exaggerated. Rather, environmental change, increasing participation in pan-Southwestern exchange systems, population aggregation, and new agricultural technologies were the major factors in the region's cultural development.

Our goals for this season were to train students in basic CRM survey, mapping, in-field analysis, and excavation methods through an intensive pedestrian survey of Forest lands in the Cosnino area at the Urban-Forest interface—an area that is increasingly subject to impact by recreational activities. Our research goals were to identify and evaluate any archaeological resources that

can contribute important information regarding past land use and settlement patterns in this area. In addition, we aimed to assist the Forest in the management of archaeological resources on Forest lands by identifying significant sites that could contribute such information.

The first year of the Coconino field school was an unparalleled success. Students received an introduction into the rich field of research related to the development of ancient Sinagua culture while learning the fundamentals of survey and excavation in the course of undertaking a Cultural Resource Management (CRM) field project in the Cosnino area. They also made important contributions to the archaeology of the area. Students learned how to walk transect lines through dense woodlands using compass bearings, to digitally record and map archaeological sites using high precision GPS units, to complete site record forms, to read and interpret USGS maps, and to conduct in-field artifact analyses. As part of the latter, students were given intensive training and practice in the identification of the dozens of different ceramic types found on the Coconino National Forest, as well as lithic tools and debitage.

Students were also taught basic excavation methods and the proper use of excavation tools. Students learned to lay out excavation units on a grid pattern, to excavate units in controlled 10-cm levels, to collect and record artifacts and soil samples, and to record stratigraphy. During evening lectures, students were introduced to laws that govern CRM research and how CRM research is conducted in the United States and in international contexts. Evening lectures also included specialized studies such as faunal analysis and historical archaeology, and how archaeological data was managed by the Coconino National Forest.

Finally, we made a number of field trips. We visited Sinagua sites such as Wupatki, Tuzigoot, and Montezuma Castle – these have been significant in the development of the Sinagua concept and its major research issues. Students also visited a state of the art curatorial facility at the Museum of Northern Arizona and the archaeology laboratory at the University of Northern Arizona, where they were exposed to the latest methods in digital recording and photogrammetry. One of the highlights of the season was a visit to the Hopi Mesas, where students witnessed Kachina dances and were exposed to the rich Native American cultural heritage of the Southwest.

Students in the 2017 field school participated directly in all research activities. They surveyed almost a square mile of the Cosnino area, recorded and analyzed 46 sites and 22 artifact scatters and isolated finds during the course of the survey. The sites consisted of sherd and lithic concentrations that represented small, temporary or seasonal farming settlements. Several contained 1- to 2-room masonry field houses, while others probably contained buried pit houses. In addition to the survey, students evaluated three small sites in the Cosnino area through the excavation of two to four 1 x1 m excavation units per site. These sites, which had been identified in a previous survey, consisted of ceramic and lithic scatters without evidence of masonry field houses or pit houses. As such, they were believed not to contain any important information other than what was visible on the surface and were previously determined by the Forest not to be eligible for inclusion on the National Register of Historic Places. Such determinations, however, were based on surface inspection rather than excavation. In consultation with Forest archaeologists, the Field School selected three sites for testing by the students. In two cases the determination of non-eligibility was supported by our excavations. The third site, however, contained subsurface finds that expanded our knowledge of this site and its potential contribution to knowledge regarding the Sinagua settlement history, thereby suggesting that the Forest's protocol for significance determination should be applied more carefully.

In lieu of a final exam, the 10 students were organized into four groups of 2 and 3 students to analyze the results of their research and to prepare brief reports summarizing their findings and interpretations of important aspects of the archaeological data. Although our sample size is small, we learned from these reports that the majority of occupation in the survey area predated the eruption of Sunset Crater, and the post-eruption occupation was much smaller than anticipated. These reports will be included in a more complete final report of this season's research that will be prepared for the Forest by SRI staff. In addition, a brief report of this year's field school activities was presented at the annual Pecos Conference held in Pecos, New Mexico.