



## Coconino National Forest CRM Field School, Arizona

*Course ID: ARCH XL159*

*July 10-August 6, 2016*

**FIELD SCHOOL DIRECTOR:**

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### INTRODUCTION

The major objective of this field school is 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 will take place on the Coconino National Forest near Flagstaff, Arizona, and will be taught by staff from Statistical Research, Inc., one of the foremost CRM firms in the world. The Field School is situated at an elevation between 6,000 and 7,000 feet in the pinyon-juniper and juniper woodlands of the Colorado Plateau east of the San Francisco Peaks.

The area has been home to people for many millennia and has a rich archaeological record that extends from the Paleoindian period (13,000-9,000 BCE) to the historical period, including lumbering and ranching in the late nineteenth and early twentieth centuries. 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, a cultural entity derived from Mogollon roots and influenced by interaction with other surrounding cultures.

The Sinagua appeared on the scene 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. Some sites were larger and are thought to have been community centers because they also contain a large "community room" or "Great Kiva." 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 1064 and 1066. The cinder fall from these eruptions were 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. Interaction between the new immigrants formed a cultural florescence that included the construction of large, complex pueblos such as Elden Pueblo, the Ridge Ruin, and Wupatki Ruin, and the formation of the pre-cursors of Hopi religious societies, as indicated by the burial of the “Magician” at the Ridge Ruin.

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.

The Sinagua culture climaxed in the Flagstaff region in the 13<sup>th</sup> century. The people, however, began to move to surrounding areas such as the Verde Valley and Anderson Mesa where population growth continued along with increased aggregation at the great pueblos of Chaves Pass and Tuzigoot. By CE 1400, these too were abandoned and the population shifted to the Homolovi settlements in the Little Colorado River Valley, where they were eventually absorbed by the Hopi. Today, the Hopi consider Elden Pueblo and other sites of the region as their ancestral sites.

Our goals for this season are to train students in basic CRM survey, mapping, in-field analysis, and excavation methods through an intensive pedestrian survey of Forest lands in the Winona and Ridge Ruin area. Our research goals are to identify and evaluate any prehistoric and historical-period resources that can contribute important information regarding past land use and settlement patterns in this area. We will visit Sinagua sites that have been significant in the development of the Sinagua concepts and its major research issues, as well as make weekend field trips to nearby National Parks and Monuments containing other well-known Sinagua sites in the region.

### ACADEMIC CREDIT UNITS & TRANSCRIPTS

**Credit Units:** Attending students will be awarded 12 quarter credit units (equivalent to 8 semester units) through our academic partner, UCLA Extension. UCLA is a top ranked research university and its archaeology program is among the best in the country. All IFR field schools instructors and curricula are approved both by the corresponding academic department and the Academic Senate at UCLA. This field school provides a minimum of 192 direct instructional hours.

**Transcripts:** Transcripts are available through UCLA UnEX portal at <http://bit.ly/1KjIFZK>. Grades will be posted and transcript available usually within six weeks after the end of this field school. All IFR field schools are designated ‘XL’ and thus are transferable courses, depending on the student major, GPA etc. To learn more about XL designation, go to <http://bit.ly/1KrpahW>. UCLA students, go to <http://bit.ly/20r0xNb>.

**Credit Units Transfer:** Most universities accept UCLA credit units – there are very few exceptions. Students are strongly encouraged to discuss the transferability of the credit units with school officials BEFORE attending the field school.

### COURSE OBJECTIVES

The objective of this field school is to provide students with a basic understanding of how CRM is practiced in the field. To achieve this objective, this course has two specific goals: (1) to provide students a practical working knowledge of **archaeological field methods**, including survey, excavation, laboratory analysis, artifact cataloging, and conservation; and (2) to introduce students to the legal framework that

structures CRM research in the United States and how **field research** articulates with the **research design**, interpretation of data, and **evaluation** of cultural resources.

All successful archaeological projects depend on teamwork. Much of this class is based on the model of an archaeological team working together to achieve common research goals. During fieldwork, students will be assigned to work as part of a crew. Composition of the crew will change periodically to ensure that all students have an equivalent experience. To ensure the highest level of training and personal attention to each student, each crew will be led by an experienced professional CRM archaeologist, with a staff-to-student ratio of at least 1 to 4.

Students will participate in the following research activities:

**Survey:** Students will conduct an intensive pedestrian survey of portions of the Coconino National Forest

**Excavations:** Students will participate in supervised excavations of selected sites to assess National Register significance and integrity.

**Recordation:** Students will participate in filling out site records and excavation forms, conducting in-field ceramic and lithic analyses, mapping sites and individual finds, and recording stratigraphy using state-of-the-art recording and mapping instruments, such as total stations, Global Positioning System (GPS) units, and bar-code scanners. In particular, we will train students in the use of the latest mobile field data recording applications that allow archaeological data to be collected digitally on a tablet or computer and imported seamlessly into a computer database. No data entry is required beyond the initial in-field recording: records are downloaded from the recording device and imported into the database at the push of a button. This application uses standardized attributes that minimize point of origination error, maximize the efficiency of data capture, and avoid redundant data entry.

**Laboratory:** Scheduled lab tasks will include washing, sorting, drawing, and recording of finds.

**Reporting:** Students will also learn how to conduct records searches of site files and how to complete site records.

The course begins on July 11 and will meet every weekday for four weeks until August 5. Day field trips will be scheduled for three of the Saturdays. Students may remain in camp on Sundays or make their own arrangements to leave the camp. Lectures will be given most evenings of the week. During the first week and a half, these will focus on providing students with the regional archaeological and historical background, a summary of the legal framework that structures CRM research, the project research design, and an introduction to survey and field methods. Additional lectures by visiting scholars and other specialists will be offered regularly throughout the remainder of the field season.

## **PREREQUISITES**

While there are no prerequisites for participation in this field school, it is expected that students should have some exposure to archaeology, preferably an introductory college course and have read the required reading (see below) prior to arrival in Flagstaff. This is a hands-on, experiential learning environment that will teach students how to conduct archaeological research. Students should be prepared to work hard! Surveying will involve hiking in fairly rough, brushy terrain at moderately high elevations and on relatively hot days. This will require carrying day packs with plenty of water, field survey equipment, and lunches. During the excavations, students may be digging in compact soils with picks, shovels, and trowels. All excavated sediments will be screened.

## **DISCLAIMER – PLEASE READ CAREFULLY**

Archaeological field work involves physical work in the outdoors. You should be aware that conditions in the field are different from those you typically experience in your home, dorms, or college town. This program operates in the Coconino National Forest of Arizona. Although the campground is located in the cool, shaded pine forest, field work will be conducted in lower elevation pinyon-juniper and juniper woodland, which provide little shade. During the day, temperatures may fluctuate between 70° and 95° in the shade. Temperatures in the sun can be considerably higher. Humidity will be relatively low, although summer thundershowers may be encountered. Mosquitoes and/or other insects may be problematic. Brush and snakes may also be problems for surveying. In order to be protected from sunburn and/or insects you will not be allowed to work in shorts or tank tops during survey or excavation.

If you have any medical concerns, please consult with your doctor. For all other concerns, please consult with the project director.

## **LEARNING OUTCOMES**

On successful completion of the field school, students will:

- Have a basic understanding of the legal process that guides CRM archaeology and how it differs from traditional academic research.
- Know how research is designed in a CRM framework.
- Be able to apply standard survey, mapping, and excavation methods to archaeological contexts.
- Be able to use standard recording techniques and devices to document survey and excavation results.
- Undertake preliminary processing and analysis of archaeological artifacts and ecofacts.

## **GRADING MATRIX**

10% -- Students will be required to keep a daily journal of their survey and excavation experiences, the crew present, daily observations on environmental conditions, and other relevant thoughts.

25% -- Performance in pedestrian survey and archaeological excavation methods

25% -- Completion of field records and laboratory forms

40% -- Final written test demonstrating an understanding of the survey and excavation methods and other materials presented in readings and lectures.

## **TRAVEL AND MEETING POINT**

There are a number of airports that service the Flagstaff area. The airport nearest the project site is the Pulliam Airport (FLG) in Flagstaff. This airport is serviced by American Airlines from their Phoenix hub. Students traveling by air will be met by a staff member at the Pulliam airport. From there, they will travel to the Elden Pueblo campground, which is located about 1.5 mile north of I-40 and immediately south of the Flagstaff Ranger District offices at 5075 N. Highway 89, Flagstaff, AZ 86004 (Do not confuse the parking area for the Elden Trail head that is just a short ways past the Ranger Station).

Students traveling by car can reach the campground via Interstate 40 from the east or west, Interstate 17 from the south, and Highway 89 from the north. There are signs on both sides of Highway 89 that indicate “Elden Pueblo Ruins”. The parking lot for the site is on the west side of the highway, immediately before the stop light at the intersection of HW 89 and the Camp Townsend-Winona Road.

If you miss your connection or your flight is delayed, please call, text, or e-mail the project director immediately. A local emergency cell phone number will be provided to all enrolled students.

**VISA REQUIREMENTS**

There are no visa requirements as the field school is located in the United States.

Citizens of other countries are asked to check their local U.S. Embassy website page at their home country for specific visa requirements.

**ACCOMMODATIONS**

Students will reside in an informal camp area at Elden Pueblo, the site of a large 12<sup>th</sup> century Sinagua ruin, on lands administered by the Coconino National Forest. Students should bring their own tents, sleeping bags, and air mattresses. Personal camp chairs and sun showers are also recommended. The field school will provide enclosed portable outdoor showers and portable toilets. A large tent will serve as the kitchen, dining hall, laboratory, and lecture hall. Facilities of the adjacent Flagstaff Ranger District offices will be available on an as-needed basis. The campground is located in the cool Ponderosa pine forest at approximately 7,000 feet above sea level, so a period of adjustment to the altitude may be necessary. Numerous hiking trails extend from the campground onto Mt. Elden and the adjacent San Francisco Peaks.

All meals will be communal events and will provide plenty of nutritious food. Specialized diets (vegetarian, lactose-intolerant, etc.) can be supported, but staff must be notified in advance.

**MANDATORY EQUIPMENT**

Field equipment: day pack, two 1-liter water bottles or 2-liter reservoir, pens and pencils, pocket-sized ruler, clipboard, 5-m tape measure, 4.5-in Marshalltown trowel, good-quality hiker’s compass with mirror top, pliers, and leather gloves.

Personal equipment: sleeping bag, sleeping pad, and tent; towel and toiletries; flashlight or headlamp; sunscreen and insect repellent; personal first-aid kit.

Clothing: quick-drying long sleeve shirts, t-shirts, and long pants; rain jacket; fleece sweater; sturdy hiking boots, and broad-brimmed hat.

**COURSE SCHEDULE**

On July 10, students will meet the staff in at the Elden Pueblo campground in the late afternoon and set up tents. Dinner will be provided.

The typical field day will start with breakfast between 6 and 7 am. The morning session will be from 7 am to 11 am. Lunch will be about 30 minutes. The afternoon session will be from 11:30 to 3:00 pm. Dinner will be served about 6 pm. Evening lectures will be offered after dinner. On weekends, we will offer day trips to nearby national parks and monuments and museums. We also plan to visit the Hopi Mesas to attend a ceremonial kachina dance.

<b>WEEK ONE (July 11–15)</b>					
	<b>Monday (7/11)</b>	<b>Tuesday (7/12)</b>	<b>Wednesday (7/13)</b>	<b>Thursday (7/14)</b>	<b>Friday (7/15)</b>
<b>7–11 am</b>	Introduction and camp orientation	Ceramic Identification training	Survey	Survey	Survey
<b>11:30 am – 3 pm</b>	Tour of Elden Pueblo and Ranger District offices	Orienteering exercise and survey methods	Instrument mapping and recording exercises	Survey	Survey

<b>WEEK ONE (July 11–15)</b>					
	<b>Monday (7/11)</b>	<b>Tuesday (7/12)</b>	<b>Wednesday (7/13)</b>	<b>Thursday (7/14)</b>	<b>Friday (7/15)</b>
<b>8–9 pm</b>	Opening campfire	Evening lecture: National Historic Preservation Act and legal framework of CRM	Evening lecture: overview of regional archaeology and history	Evening lecture: research design	BBQ: informal discussions of past week
<b>July 16: Field Trip</b>					

<b>WEEK TWO (JULY 18–22)</b>					
	<b>Monday (7/18)</b>	<b>Tuesday (7/19)</b>	<b>Wednesday (7/20)</b>	<b>Thursday (7/21)</b>	<b>Friday (7/22)</b>
<b>7–11 am</b>	Survey	Survey	Survey/Excavation	Survey/Excavation	Survey/Excavation
<b>11:30 am – 3 pm</b>	Survey	Survey	Survey/Excavation	Survey/Excavation	Survey/Excavation
<b>8–9 pm</b>	free evening for reading	Evening lecture: excavation methods	Evening lecture: regional ethnography	Evening lecture: geomorphology	BBQ: informal discussions of past week
<b>July 23: Field Trip</b>					

<b>WEEK THREE (JULY 25–29)</b>					
	<b>Monday (7/25)</b>	<b>Tuesday (7/26)</b>	<b>Wednesday (7/27)</b>	<b>Thursday (7/28)</b>	<b>Friday (7/29)</b>
<b>7–11 am</b>	Survey/Excavation/Lab	Survey/Excavation/Lab	Survey/Excavation/Lab	Survey/Excavation/Lab	Survey/Excavation/Lab
<b>11:30 am – 3 pm</b>	Survey/Excavation/Lab	Survey/Excavation/Lab	Survey/Excavation/Lab	Survey/Excavation/Lab	Survey/Excavation/Lab
<b>8–9 pm</b>	Free evening for reading	Evening lecture: historical archaeology	Evening lecture: chronological methods	Evening lecture: shell-bead analysis	BBQ: informal discussion of past week
<b>July 30: Field Trip</b>					

<b>WEEK FOUR (AUGUST 1–5)</b>					
	<b>Monday (7/31)</b>	<b>Tuesday (8/1)</b>	<b>Wednesday (8/2)</b>	<b>Thursday (8/3)</b>	<b>Friday (8/4)</b>
<b>7–11 am</b>	Excavation/Lab	Excavation/Lab	Excavation/Lab	Backfilling	FINAL EXAM
<b>11:30 am – 3 pm</b>	Excavation/Lab	Excavation/Lab	Excavation/Lab	Lab, pack up excavation and laboratory equipment	Complete evaluation forms, final discussions, pack up personal gear
<b>8–9 pm</b>	Free evening for reading	Evening lecture: careers in cultural resource management	Study night for final exam	Study night for final exam	BBQ
<b>AUGUST 6: breakfast, break down camp, and depart.</b>					

## REQUIRED READINGS

McGregor, John C.

1965 *Southwestern Archaeology*. The University of Illinois Press. Urbana. [focus on the archaeology of northern and central Arizona: Anasazi, Hohokam, Mogollon, and Sinagua]

National Park Service

1991 *How to Apply the National Register Criteria for Evaluation*. National Register Bulletin 15.

## RECOMMENDED ADDITIONAL READINGS

Bliss, Wesley L., and Paul H. Ezell

1956 The Arizona Section of the San Juan Pipeline. In *Pipeline Archaeology: Reports of Salvage Operations in the Southwest on El Paso Natural Gas Company Projects 1950-1953*, edited by Fred Wendorf, Nancy Fox, and Orian L. Lewis, pp. 81-156.

Colton, Harold S.

1941 *Winona and Ridge Ruin, Part II. Technology and Taxonomy of Pottery*, Bulletin 19. Museum of Northern Arizona, Flagstaff.

1946 *The Sinagua. A Summary of the Archaeology of the Region of Flagstaff, Arizona*. Bulletin 22, Museum of Northern Arizona, Flagstaff.

1960 *Black Sand: Prehistory in Northern Arizona*. University of New Mexico Press, Albuquerque.

Downum, Christopher E.

1992 The Sinagua: Prehistoric People of the San Francisco Mountains. *Plateau* 63(1).

Kamp, Katherine A., and John C. Whittaker

1990 Lizard Man Village: A Small Site Perspective on Northern Sinagua Social Organization. *Kiva* 55(2):99-125.

1999 *Surviving Adversity: The Sinagua of Lizard Man Village*. Anthropological Papers No. 120. University of Utah Press, Salt Lake City.

McGregor, John C.

1941 *Winona and Ridge Ruin, Part I: Architecture and Material Culture*. Bulletin 18, Museum of Northern Arizona, Flagstaff.

Pilles, Peter J., Jr.

1987 Hisatsinom: The Ancient People of Sunset Crater. In *Earthfire: A Hopi Legend of the Sunset Crater Eruption*, by Ekkehart Malotki with Michael Lomatuway'ma, pp. 105-119. Northland Press, Flagstaff.

1998 The Sinagua Tradition. In *Archaeology of Prehistoric Native America: An Encyclopedia*, Guy Gibbon, editor, pp 770-772. Garland Publishing, Inc., New York.

National Park Service

1997 Cultural Resource Management Guideline. NPS-28. Electronic document, [http://www.nps.gov/parkhistory/online\\_books/nps28/28intro.htm](http://www.nps.gov/parkhistory/online_books/nps28/28intro.htm), accessed August 27, 2015. U.S. Department of the Interior, National Park Service, Washington, D.C.

Sebastian, Lynn

n.d. Integrating Section 106 and the National Environmental Policy Act. A Continuing Professional Education Workshop from the SRI Foundation.