



THE SAN BERNARDINO NATIONAL FOREST CRM FIELD SCHOOL, CALIFORNIA

*Course ID: ARCH 300P
July 14-August 10, 2019*

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 land administered by the San Bernardino National Forest in the San Bernardino Mountains of southern California. The project area is situated at an elevation between 4,400 and 5,400 feet on the wooded and chaparral-covered northern slopes of the San Bernardino Mountains in the vicinity of the Deep Creek Drainage. This location is near the city of Hesperia, California, overlooking the Mojave Desert.

The San Bernardino Mountains are part of a series of geologically diverse mountain ranges that together form the Transverse Ranges, running east-west across southern California all the way to the coast. The mountain ranges form a significant natural boundary, separating the coastal basins from the deserts. The ecology of the San Bernardino Mountains is complex and varied, incorporating coastal and desert influences with a number of predominantly mountain attributes. The San Bernardino Mountains were a gateway through which people, ideas, and materials passed from one region to another over several millennia.

The area has been home to people for many millennia and has a rich prehistoric and historical-period archaeological record that extends from the Clovis period (10,000–8,000 B.P.) to the historical period, including gold mining and ranching in the late nineteenth and early twentieth centuries. In Late Prehistoric times, the area fell within the territory of the ethnographic Serrano, a group speaking a language of the Takic branch of the Uto-Aztecan family. Throughout much of prehistory, the mountains

were used by hunters and gatherers to gather and process acorns, pinyon nuts, and other wild plant foods, as well as to hunt deer, rabbits, and other game animals. Temporary residential sites and larger settlements were established near streams at the foot of the mountains, where people had access to desert and mountain environments, as well as water.

Our goals for this season are to train students in basic CRM survey, mapping, and excavation methods through an intensive pedestrian survey and testing in the San Bernardino National Forest. Our research goal is to determine whether the survey areas contain any prehistoric or historical-period resources that can contribute important information regarding prehistoric land use and historical-period mining and ranching activities in the region.

ACADEMIC CREDIT UNITS & TRANSCRIPTS

Credit Units: Attending students will be awarded 8 semester credit units (equivalent to 12 quarter credit units) through our academic partner, Connecticut College. Connecticut College is a private, highly ranked liberal arts institution with a deep commitment to undergraduate education. Students will receive a letter grade for attending this field school (see grading assessment and matrix). This field school provides a minimum of 160 direct instructional hours. Students are encouraged to discuss the transferability of credit units with faculty and registrars at their home institution prior to attending this field school.

Transcripts: An official copy of transcripts will be mailed to the permanent address listed by students on their online application. One more transcript may be sent to the student home institution at no cost. Additional transcripts may be ordered at any time through the National Student Clearinghouse: <http://bit.ly/2hvurkl>.

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 research design, the interpretation of data, and the 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 student-to-staff ratio of at least 4 to 1.

Students will participate in the following research activities:

Survey: Students will conduct an intensive pedestrian survey of portions of the San Bernardino National Forest.

Excavations: Students will participate in supervised excavations of historical-period features and prehistoric features, if found.

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 Global Positioning System (GPS) units.

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 GPS 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 field sorting, washing, and recording of finds.

Reporting: Students will also learn how to conduct records searches of site files, how to complete site record forms, and how to complete a brief report of findings.

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, research design, and introductions to survey and field methods. Additional lectures by visiting scholars and other specialists will be offered regularly throughout the remainder of the field season. The actual topics presented by visiting scholars and schedule will be based on their availability, but include topics such as ethnography and native perspectives, historical archaeology, geomorphology, faunal analysis, chronological methods, and careers in archaeology are likely.

DISCLAIMER – PLEASE READ CAREFULLY

Our primary concern is with education. Traveling and conducting field research involve risk. Students interested in participating in IFR programs must weigh whether the potential risk is worth the value of education provided. While risk is inherent in everything we do, we do not take risk lightly. The IFR engages in intensive review of each field school location prior to approval. Once a program is accepted, the IFR reviews each program annually to make sure it complies with all our standards and policies, including student safety.

We do our best to follow schedule and activities as outlined in this syllabus. Yet local permitting agencies, political, environmental, personal, or weather conditions may force changes. This syllabus, therefore, is only a general commitment. Students should allow flexibility and adaptability as research work is frequently subject to change.

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 San Bernardino Mountains in southern California. During the day in July and August, temperatures fluctuate between 70° and 95° in the shade. Daily high temperatures can exceed 100°. Humidity will be relatively low, although summer thundershowers may be encountered. Heavy brush and snakes may also be problems in the survey areas. 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.

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 California. 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.

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% of grade	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 observations.
30% of grade	Performance in pedestrian survey and completion of digital site recording and conventional site record forms.
30% of grade	Performance in excavation and laboratory analysis and completion of excavation and analysis forms.
30% of grade	Completion of short written report and oral presentation summarizing and interpreting results of surveys and/or excavations. Students will be organized into groups of 2 or 3 to prepare and present each report.

TRAVEL AND MEETING POINT

Hold purchasing your airline ticket until six (6) weeks prior to departure date. Natural disasters, political changes, weather conditions and a range of other factors may require the cancellation of a field school. The IFR typically takes a close look at local conditions 6-7 weeks prior to program beginning and make Go/No Go decisions by then. This time frame still allows the purchase of discounted airline tickets while protecting students from potential loss of airline ticket costs if we decide to cancel a program.

There are many airports that service the area. The airport nearest the project site is the Ontario Airport near the city of San Bernardino. This airport is served by many airlines and can also be reached by shuttle bus from Los Angeles International Airport, the largest in the region. Students arriving by air and those traveling by car should meet at SRI's offices in Redlands, California, where they will convoy to the Campground.

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 for U.S. citizens 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 on the San Bernardino National Forest. Students should bring their own tents, sleeping bags, and air mattresses. Personal camp chairs and solar showers are also highly recommended. The field school will provide enclosed portable outdoor showers and portable toilets. Large tents will serve as the kitchen and dining hall as well as laboratory and lecture hall. The campground is located at approximately 5,600 feet above sea level, so a period of adjustment to the altitude may be necessary. Hiking and mountain bike trails are present in the area.

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. Meals will be prepared by a professional cook and will be provided for five days a week. Breakfast will be available Saturday and staff will prepare Sunday dinner. Students will be responsible for their own meals for the remainder of Saturday and Sunday.

The field camp is located about 15 miles via Forest Service and paved roads from Big Bear Lake with shopping centers, gas stations, restaurants, and fast food facilities. A gas-powered generator will be available evenings to recharge staff and personal electronic devices, although by necessity, the former will have priority. Running water may not be available at the camp but will be provided by Forest Service in portable storage facilities.

Students will be expected to assist in camp maintenance activities. These include dish washing and clean up after meals, vehicle and generator maintenance, and ensuring that the communal camp area, as well as their individual camp sites, remain clean.

MANDATORY EQUIPMENT

Field equipment:

- Day pack
- Two 1-liter water bottles or 2-liter reservoir
- Pens and pencils
- Pocket-sized ruler
- Clipboard
- 5 meter tape measure
- 4.5-in Marshalltown trowel
- Good-quality hiker's compass with mirror top
- Line level
- Leather gloves

Personal equipment:

- Sleeping bag
- Sleeping pad
- Tent
- Towel and toiletries
- Flashlight or headlamp
- Sunscreen and insect repellent
- Personal first-aid kit
- A solar shower and camp chair are highly recommended
- Quick-drying long sleeve shirts
- T-shirts and quick-drying long pants (not jeans)
- Rain jacket
- Fleece sweater
- Sturdy hiking boots
- Broad-brimmed hat
- T-shirts and shorts in camp are acceptable

COURSE SCHEDULE

All IFR field schools begin with a safety orientation. This orientation will cover proper behavior at the field area, proper clothing, local cultural sensitivities and sensibilities, potential fauna and flora hazards, review of IFR harassment and discrimination policies, and review of the student Code of Conduct.

On Sunday, July 14, students will meet the staff at SRI's offices in Redlands in the early afternoon, drive to camp, 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. Time between the field session and dinner can be used for showers and completing field forms and the daily journal. Dinner will be served about 6 pm. Evening lectures will be offered after dinner by camp staff and guest lecturers. The lecture schedule is tentative, based on the availability of guest lecturers. Assigned readings should be read *before* the day upon which they are listed, as they will be discussed on that day. We suggest that you review all of the required readings prior to the start of the field school.

On Saturdays, breakfast will be served at 7 am. We will offer day trips on two weekends. Saturday field trips are optional but highly recommended to gain a full exposure to the archaeology and native cultures of the region. Sundays will be an off day to take care of laundry and other personal issues.

WEEK ONE (July 15–19)					
	Monday (7/15)	Tuesday (7/16)	Wednesday (7/17)	Thursday (7/18)	Friday (7/19)
7–11 am	Introduction and camp orientation	How to read topographic and other maps	Orienteering exercise and survey methods	Survey	Survey
11:30 am – 3 pm	Ceramic and lithic artifact identification	Orienteering exercise and survey methods	Instrument mapping and recording	Survey	Survey
8–9 pm	Opening campfire: informal discussion	Evening lecture: overview of regional archaeology and history	Evening lecture: National Historic Preservation Act and legal framework of CRM	Evening lecture: research design in a CRM framework	BBQ: informal discussions of past week
Required Readings		Lerch et al. 2007	Lipe 2009 Sebastian 2009	NPS 1991, 1997	
Recommended Readings		Altschul et al. 1989 Lerch and Ciolek-Torello 2007			
Saturday (7/20): Free					

WEEK TWO (JULY 22–26)					
	Monday (7/22)	Tuesday (7/23)	Wednesday (7/24)	Thursday (7/25)	Friday (7/26)
7–11 am	Survey	Survey	Survey/Excavation	Survey/Excavation	Survey/Excavation
11:30 am – 3 pm	Survey	Survey	Survey/Excavation	Survey/Excavation	Survey/Excavation
8–9 pm	free evening for reading	Evening lecture: regional ethnography	Evening lecture: faunal analysis	Evening lecture: geomorphology	BBQ: informal discussions of past week
Required Readings		Bean and Smith 1978 Ferguson 2009	Altschul et al. 1985		
Recommended Readings		Grenda and Ciolek-Torello 2018			

WEEK TWO (JULY 22–26)					
	Monday (7/22)	Tuesday (7/23)	Wednesday (7/24)	Thursday (7/25)	Friday (7/26)
Saturday (7/27): Field trip (TBD)					

WEEK THREE (JULY 29–August 2)					
	Monday (7/29)	Tuesday (7/30)	Wednesday (7/31)	Thursday (8/2)	Friday (8/3)
7–11 am	Survey/ Excavation/ Lab	Survey/ Excavation/ Lab	Survey/ Excavation/ Lab	Survey/ Excavation/ Lab	Survey/ Excavation/ Lab
11:30 am – 3 pm	Survey/ Excavation/ Lab	Survey/ Excavation/ Lab	Survey/ Excavation/ Lab	Survey/ Excavation/ Lab	Survey/ Excavation/ Lab
8–9 pm	Free evening for reading	Evening lecture: historical archaeology	Evening lecture: chronological methods	Evening lecture: shell-bead analysis	BBQ: informal discussion of past week
Required Readings		Lerch et al. 2007			
Recommended Readings		Robinson 1989			
Saturday (8/4): Field trip (TBD)					

WEEK FOUR (AUGUST 5-9)					
	Monday (8/5)	Tuesday (8/6)	Wednesday (8/7)	Thursday (8/8)	Friday (8/9)
7–11 am	Excavation/Lab	Excavation/Lab	Excavation/Lab	Backfilling	Final Report
11:30 am – 3 pm	Excavation/Lab	Excavation/Lab	Excavation/Lab	Lab, pack up excavation and laboratory equipment	Complete reports and presentations, final discussions, pack up personal gear
8–9 pm	Free evening for reading	Evening lecture: careers in cultural resource management	Report preparation	Report preparation	BBQ
Required Readings		Sutton and Yohe 2008			
Recommended Readings		Newmann et al. 2010			
Saturday (8/10): breakfast, break down camp, and depart.					

REQUIRED READINGS

- Altschul, Jeffrey H., Martin R. Rose, and Michael K. Lerch
 1985 Prehistoric Settlement. In *Cultural Resources Investigations in the Mojave River Forks Reservoir, San Bernardino County, California*, pp. 65–78. Technical Series No. 2. Statistical Research, Tucson.
- Bean, Lowell J. and Charles R. Smith
 1978 Serrano. In *California*, edited by Robert F. Heizer, pp. 570–574. Handbook of North American Indians, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington.

Ferguson, T.J.

2009 Improving the Quality of Archaeology in the United States through Consultation and Collaboration with Native Americans and Descendant Communities. In *Archaeology & Cultural Resource Management: Visions for the Future*, edited by Lynne Sebastian and William D. Lipe, pp. 169-193. School for Advanced Research Advanced Seminar Series. SAR Press, Santa Fe.

Lerch, Michael K., Angela H. Keller, and Richard Ciolek-Torrello (eds)

2007 *A Rock and a Hard Place: Prehistoric Millingstone Camps and Historic Gold Mining in the Balanced Rock Area, San Bernardino National Forest*. Technical Report 06-70. Statistical Research, Redlands, California.

Lipe, William D.

2009 Archaeological Values and Resource Management. In *Archaeology & Cultural Resource Management: Visions for the Future*, edited by Lynne Sebastian and William D. Lipe, pp. 41-63. School for Advanced Research Advanced Seminar Series. SAR Press, Santa Fe.

National Park Service

1997 Cultural Resource Management Guideline. NPS-28. Electronic document, 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.

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

Sebastian, Lynne

2009 Deciding What Matters: Archaeology, Eligibility, and Significance. In *Archaeology & Cultural Resource Management: Visions for the Future*, edited by Lynne Sebastian and William D. Lipe, pp. 91-114. School for Advanced Research Advanced Seminar Series. SAR Press, Santa Fe.

Sutton, Mark Q., and Robert M. Yohe II

2008 Cultural Resource Management. In *Archaeology: The Science of the Human Past*, 3rd. ed., pp. 351-381. Pearson/Allyn and Bacon, Boston.

ADDITIONAL RECOMMENDED READINGS

Altschul, Jeffrey H., William C. Johnson, and Matthew A. Sterner

1989 *The Deep Creek Site (CA-SBr-176): A Late Prehistoric Base Camp in the Mojave River Forks Region, San Bernardino County, California*. Technical Series 22. Statistical Research, Tucson.

Altschul, Jeffrey H., Martin R. Rose, and Michael K. Lerc

1985 *Cultural Resources Investigations in the Mojave River Forks Reservoir, San Bernardino County, California*. Technical Series 2. Statistical Research, Tucson.

Grenda, Robert D., and Richard Ciolek-Torello

2018 *Pinyon Processing at the Forest Edge: National Register of Historic Places—Eligibility Evaluation, Assessment of Damage, and Management Recommendations for 18 Archaeological Sites in the San Bernardino National Forest, San Bernardino, California*. Technical Report 18-17 Statistical Research, Inc., Redlands, California. In press.

Lerch, Michael K., and Richard Ciolek-Torrello (eds)

2007 *From the Pan into the Fire: Emergency Archaeological Data Recovery at the Pan Hot Springs Site, San Bernardino National Forest, California*. Report prepared for the USDA Forest Service, San Bernardino National Forest. Technical Report 06-90. Statistical Research, Inc. Redlands, CA.

Neumann, Thomas W., Robert M. Sanford, and Karen G. Harry

2010 *Cultural Resources Archaeology: An Introduction*. Altamira Press, Lanham, Maryland.

Robinson, John W.

1989 *The San Bernardinos: The Mountain Country from Cajon Pass to Oak Glen, Two Centuries of Changing Use*. Big Santa Anita Historical Society.