PROYECTO ARQUEOLOGICO ZULETA, ECUADOR

Course ID: ARCH 315Q

July 10–August 12, 2023

Academic Credits: 8 Semester Credit Units (Equivalent to 12 Quarter Units)

FIELD SCHOOL DIRECTORS

Dr. David O. Brown, Texas Archaeological Research Laboratory, University of Texas at Austin (david.brown@mail.utexas.edu)

Will Pratt, Ph.D. Candidate, Geography and the Environment, University of Texas at Austin (wpratt@utexas.edu)

Dr. J. Stephen Athens, International Archaeological Research Institute, Honolulu (jsathens@iarii.org)

Dr. José Echeverría, Investigador, Universidad Técnica del Norte, Ibarra (jhecheverria@utn.edu.ec)

Ryan Scott Hechler, Ph.D. Candidate, Anthropology, Tulane University (rhechler@tulane.edu)

OVERVIEW

Nestled in a scenic valley where the Andes mountains meet the equator, Hacienda Zuleta is one of the largest concentrations of pre-Columbian earthen mounds in the Americas. With 148 hemispherical burial mounds and quadrangular pyramids, the site was one of the dominant political and ceremonial centers for the Cara people who occupied the northern Ecuadorian highlands from around 900 A.D. until the Spanish conquest. Until 1280 A.D., the Cara were composed of numerous disaggregated chiefdoms without any apparent political centers. In 1280 A.D, Quilotoa volcano some 100 kilometers to the south, erupted spreading ash over most of the country. The eruption marked the transition in the region from the warm and wet conditions of the Medieval Climate Anomaly to the cold and dry conditions of the Little Ice Age. Rather than exhibiting evidence of decline, the Cara flourished after the eruption and went on to build some of the largest monuments in Ecuadorian prehistory. The Cara eventually became one of the most powerful groups in Ecuador, able to resist the advances of the Inka Empire for years. By the time the Inka arrived, four major Cara politics had come to dominate the region. How the impact of the eruption may have contributed to the rise of the Cara is still poorly understood, but it raises questions about the development of complex societies and cultural adaptive responses to climatic and environmental perturbations.

Zuleta may have been the premier center for Cochecarangue, a territory extending from the site at Hacienda Zuleta in the south to Ibarra and Yahuarcocha in the north. After the long and brutal war with the Inka, the last of the Cara resistance was defeated at Yahuarcocha, a Quechua name that literally translates to “Lake of Blood”. By the time the Spanish arrived in Ecuador, Zuleta had been abandoned and there is no evidence that the Inka ever occupied the site suggesting that abandonment may have taken place sometime around 1450 A.D. After the arrival of the Spanish, the area was converted to a hacienda in the seventeenth century and eventually came under the ownership of the Plaza-Lasso family, one of the most influential families in the Republic of Ecuador. The hacienda was the farmstead of both President Leonidas Plaza and his son President Galo Plaza. Today, Hacienda Zuleta, with its quintessential early Spanish Colonial architecture, is widely regarded as one of the most beautiful haciendas in Ecuador. Zuleta hosts researchers from around the world and has been the focus of archaeological investigations, soil and afforestation studies, and research into the efficacy of payments for ecosystem services. Hacienda Zuleta is also the site of one of the world’s few condor conservancies working towards saving the heavily endangered Andean condor.

Proyecto Arqueológico Zuleta (PAZ) is part of the broader Proyecto Investigación de los Andes Norte (PIAN), a team of researchers investigating the history, culture, and ecology of the northern Andes. Since 2016, PIAN conducted investigations at the Cara site of Cochasquí to increase our understanding of the chronology of the site, the post-Quilotoa changes, and the nature of the Inka occupation. This year, PIAN is shifting its focus to the mounds of Zuleta, the impact of the Quilotoa eruption on the site and agriculture, and the cultural developments that took place at the site.

The 2023 excavations at Zuleta will build on previous excavations focused on understanding the nature of the occupation at the site, the chronology of the site, the agricultural practices of its people, and the site’s eventual abandonment. Prior to the Quilotoa eruption, the Cara built small hemispherical burial mounds where elites were interred with a small number of grave goods. After the eruption, the Cara began building massive quadrangular earthen pyramids with large circular structures and extended entry ramps. The methods used to construct these pyramids and their function in Cara society are still largely a mystery. Some have suggested that they served as chiefly residences while others argue that they may have been the site of temples and religious ceremonies. We will be conducting excavations atop some of the pyramids at Zuleta to investigate the nature of the activities that took place there. Because Zuleta appears to have been abandoned before the arrival of the Inka, we will compare these samples to

samples taken from Cochasquí to distinguish Cara construction styles from those introduced by the Inka in order to better understand the Inka occupation and Cara-Inka hybridity. Our excavations will also focus on the last phase of occupation at the site to try to understand when and why the site was abandoned.

In addition to the mound complex, there are the remains of raised field agriculture features at Zuleta, a form of wetland agriculture that relies on mounded earth to raise crops above the surrounding marsh. Raised fields have been lauded by archaeologists and cultural ecologists as an effective and sustainable form of agriculture, one that promotes biodiversity, efficient wetland management, and can feed large populations. This form of agriculture was practiced in the valley flats of the northern Ecuadorian highlands during the warm and wet Medieval Climate Anomaly but was eventually abandoned. The conventional hypothesis suggests that many of these fields were inundated by ashfall from the Quilotoa eruption and fell into disuse. However, some of the raised fields in the region appear to have received little ashfall yet were nonetheless still abandoned. An alternative hypothesis suggests that the cooling and drying that occurred after the Quilotoa eruption with the onset of the Little Ice Age may have made this method of agriculture untenable. Initial interpretations formed during our 2022 field season suggest that an eruption of Cayambe volcano shortly after the eruption of Quilotoa might have been a yet unrecognized contributing factor to the abandonment of some of the raised fields and the Zuleta valley. To test this hypothesis, we will continue the work we started in 2022 conducting soil sampling of these fields and various locations within the valley along a transect to examine the formation processes, ancient and contemporary human land use, and volcanic impacts within the valley. We will be using multiproxy paleoenvironmental reconstruction techniques including microbotanicals and geochemistry to examine the composition of the pre-eruption agroecosystems and post-eruption vegetation changes to determine how the Quilotoa eruption, a possible Cayambe eruption, and the onset of the Little Ice Age might have influenced Cara agricultural practices and land use strategies. Ultimately, our research seeks to better understand the development of complex societies, the formation of their cultural landscapes and landesque capital, and their response to climate change and volcanic impacts.

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 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 hours of experiential education. 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.

PREREQUISITES

Though no prerequisites are required for attendance, preference will be given to students who have taken previous coursework in archaeology. Prospective students should understand that archaeological field work is a serious and ultimately destructive undertaking with data not gathered lost for all time. Field work involves intense physical labor outdoors, often under less-than-ideal conditions to achieve specific project related goals.

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 and programming prior to approval. Once a program is accepted, the IFR reviews each program annually to make sure it still complies with all our standards and policies, including those pertaining to student safety.

The IFR does not provide trip or travel cancellation insurance. We encourage students to explore such insurance on their own as it may be purchased at affordable prices. Insuremytrip.com or Travelguard.com are possible sites where field school participants may explore travel cancellation insurance quotes and policies. If you do purchase such insurance, make sure the policy covers the cost of both airfare and tuition.

We do our best to follow a schedule of activities, methods training, and programming as outlined in this syllabus. However, this schedule can be easily disrupted by any number of unforeseen circumstances, including revised decisions by local permitting agencies, political unrest, and changes in the weather. While this schedule represents the best of the director(s) intentions, we - students and staff alike - need to be adaptable and tolerant of necessary alterations. This adaptability is an intrinsic part of all field research.

Ecuador is an extremely ecologically diverse country, and it is possible to go from frozen glaciers to sweltering jungles in a matter of hours. Where we are located (around 2,800 meters or 9,200 feet), temperatures range from around 70° (Fahrenheit) during the day to the high 40s at night and there are very few biting insects. During the day the sun can be very intense, and you can heat up very quickly; the relatively low humidity can be dehydrating and carrying drinking water is essential. UV radiation is also stronger at this high altitude and sunscreen is essential. Nights can be brisk, students should have warm evening clothes and though not required, a light sleeping bag may be useful. In general, students should be prepared for a wide range of temperatures, especially if field trips take us to higher or lower elevations, or if you plan to travel before or after the field school. A few layers of clothing that can be removed or added as needed are best.

Students will enjoy relatively easy field conditions with most areas of excavation within a short distance from the hotel. Most areas are within the fenced and protected hacienda with guards on duty 24/7 and cows being the most dangerous animal one might ordinarily encounter. Nonetheless, students should be ready and willing to hike and carry equipment to their specific excavations, work all day, and hike back to the hotel in the evenings. For safety reasons, students will not be allowed to excavate in shorts. Sturdy boots will be necessary for much of the fieldwork.

The project lies in the Andean highlands and some activities will be conducted at even higher elevations. While most students have no trouble with the altitude, a short period of acclimation should be expected. If you have asthma, COPD, other breathing difficulties or previous problems with altitude sickness, it would be wise to consult your doctor and discuss your issues with the project directors. Students (especially students who plan on traveling after the field school) should visit a travel doctor to be sure they are up to date on all their vaccinations and take all necessary precautions for their journey. Students should also bring any personal medication they might require for their time in Ecuador. If you have any medical concerns, please consult with your doctor. For all other concerns, please consult with the program director and staff.

COURSE OBJECTIVES

The field school will introduce students to the basics of archaeological field investigations and provide a general introduction to Andean archaeology and paleoecology. Participants will conduct archaeological field investigations during the day under the guidance of professional archaeologists and attend occasional evening lectures on field methods, theory, Andean/Ecuadorian history and prehistory, and geoarchaeology.

This will be achieved through a combination of lectures, assignments, and hands-on training. Students will spend some time in the lab cleaning and documenting collected materials. Each field school participant will also be required to design and implement an independent project during the field season. The goal of the field school will be to teach students the basics of research, the scientific method, hypothesis testing, and project development by encouraging participants to develop and test research questions as part of their final project in the field school.

LEARNING OUTCOMES

By the end of the field season, students should be able to discuss the goals of archaeological research, in general, and the animating questions at the core of archaeological investigations at Zuleta. Students should also be able to discuss the basics of the project's research design, including its theoretical relevance, why particular data collection methods are employed, and the significance of some of the findings. With respect to archaeological methods, participants should be able to demonstrate how to lay out excavation units, how to apply basic excavation and mapping techniques, what techniques might best be suited to particular contexts, how to complete archaeological paperwork, and how to identify, sort, catalog, and prepare artifacts for analysis. Students should also understand how to identify general soil types and should understand basic concepts of site formation, geomorphological processes, concepts of typology and cultural change through material items, as well as how evidence of material context can be related to evidence of cultural context.

ASSESSMENT

Students will be graded on a combination of comprehension of assigned reading topics and participation, field exercises, field notebooks, and a final research project.

Lectures and Readings (20%): Students will receive a portion of their final grade derived from their ability to articulate and form questions based on the content of lectures and assigned readings. Students may be asked to write brief summaries or be quizzed on the contents of specific readings during the course of the field school.

Participation in Field Exercises (40%): A portion of students' grades will be based on their daily participation in the operations of the project. Students will cycle through various operations and tasks during the season and will be expected to willingly and enthusiastically engage in those activities. Uncooperative or negative behaviors or shirking work will be graded accordingly. Students who willingly cooperate and demonstrate that they have gained a clear understanding of the tasks at hand will receive a higher grade.

Field Notebooks (20%): Notes and observations in the form of a field notebook are integral to the success and appropriate documentation of archaeological fieldwork. Students will be required to keep a complete and professionally acceptable journal of daily activities, archaeological findings and interpretations. Incomplete notebooks or inappropriate entries are unacceptable, and grades will be

based on thoroughness, appropriate content, and a demonstration of an understanding of archaeological concepts will be graded positively.

Student Research Projects (20%): During the course of the project, students will be required to develop their own research projects in which they will form a hypothesis, develop a method to test the hypothesis, and form appropriate conclusions about their topic. Research projects will be developed by students according to their interests with the guidance of project directors and must be approved by directors before students begin conducting their research. Projects can involve observations from ongoing excavations or recording activities, analysis of artifacts, or related experimental activities with archaeological materials. Student projects should identify and investigate specific archaeological or anthropological problems that relate to the archaeology of the site or the region. Students will be required to report on their findings in a professional-style presentation to other members of the project during the final week of the field school and present a final paper detailing their project to be emailed to the directors a week after the end of the field school. Final papers are worth half of the total grade for the research project and must include a title, introduction, background, methodology, discussion, conclusion, and references sections. Papers should be 7 to 10 pages long, double spaced, in 12-point Times New Roman font.

TRAVEL, ROOM & BOARD, & SAFETY LOGISTICS

COVID-19 Disclaimer:

The logistics outlined below for this IFR field school were written according to the most current and accurate information available to IFR. We recognize that the best practices for preventing the transmission of the coronavirus may change in the coming months. The IFR will be revisiting program-specific plans periodically throughout the enrollment period and will update program details according to new developments, new travel protocols, and updates to local policies. Updates to program-specific protocols will be communicated to participants at the pre-program orientation.

An IFR field school is designed to provide safe, positive, and constructive experiences for participating communities, students, and researchers. We are committed to protocols and practices that support the health and well-being of all involved in our field school projects, including the members of the community in which these projects take place. The IFR COVID-19 Policies have been developed with Dr. Kurt Eifling, the IFR Medical Director. Dr Eifling is a Fellow of the Academy of Wilderness Medicine and a practicing physician (https://ifrglobal.org/about/staff/).

We strongly recommend reviewing IFR's COVID-19 policies before enrolling in a program. All IFR students sign an agreement (Student COVID-19 Prevention Agreement) to uphold and abide by all aspects of the IFR COVID-19 policy as published on the website (https://ifrglobal.org/ifr-covid-19-practices/) as well as any program-specific protocols. These practices are subject to change as health and risk management experts provide new recommendations and best practices.

PRIOR TO TRAVEL

IFR requires all students participating in IFR programs to be "up to date" with their COVID-19 vaccines, meaning they have completed a COVID-19 vaccine primary series AND received the most recent booster

dose recommended by CDC, if eligible. For recommendations and eligibility for booster shots according to age and health status, please consult the CDC website.

VISA REQUIREMENTS

A valid passport over six months from its expiration date is required to enter Ecuador. This is important; persons with less than six months before their passport expiration will be turned away at the airport. No visa is required for U.S. visitors for stays of 90 days or less. Stays of greater than 90 days will require a travel visa to be obtained in advance. Citizens of other countries are asked to check the embassy website at their home country for specific visa requirements.

TRAVEL (TO AND DURING THE PROGRAM)

Due to ongoing uncertainties regarding the travel regulations related to COVID-19, IFR will assess the local conditions closer to the travel date (5–6 weeks prior to the program beginning) and will make Go/No Go decisions then. We urge you to participate in the mandatory orientation meeting when we will discuss the latest travel information and regulations. We also suggest you consider postponing the purchase of your airline ticket until *after* the program orientation.

New students can meet field school directors at the Quito International Airport on **Monday July 10, 2023**. Students must inform the project staff of their arrival time in Quito before the project to arrange transport from the airport which is some distance from the site. Directors will transport students from the airport directly to the site by car. If you are coming overland or would like to arrange your own transportation to the site, please inform the project as soon as possible and provide contact information. If you missed your connection or your flight is delayed, please call, text or email the project director immediately. A local emergency cell phone number will be provided to all enrolled students.

For up-to-date COVID-19 information, please check the United States Embassy website.

Ecuador currently (January 2022) requires:

- Proof of a negative COVID-19 RT-PCR test taken **no more than seventy-two hours before entry**
- COVID-19 vaccination card showing "a complete series of the COVID-19 vaccine" was received **at least 14 days prior to entry**
- Declaration of traveler health.
- Ecuador Ministry of Health personnel will evaluate any traveler who presents symptoms of COVID-19, and may conduct rapid antigen testing. If the rapid antigen test is positive, the traveler must isolate for ten (10) days. The isolation may take place at the traveler's home or at a place of accommodation at the traveler's personal expense. If the rapid antigen test is negative, no isolation is required.
- There is currently a special exception for travelers coming from India or travelers who are routed through India. Travelers who come from or pass through India will be required to take a diagnostic COVID-19 test upon entry and will be required to quarantine in Ecuador for 10 days regardless of the result of the test. Students coming from India or who might pass through India on their route to Ecuador should contact field school directors to discuss arranging this quarantine. The field school may not be able to cover the cost of lodging for these students during this quarantine period and they should be prepared to pay for their own lodging.

Once at the Zuleta community, students will travel from the hotel to the excavation locations either on foot or by vehicle depending on the distance to the location. Students traveling by vehicle will be expected to wear masks while inside.

LOCAL PROTOCOLS, REGULATIONS, & EXPECTATIONS

COVID-19 is an ongoing problem in Ecuador. Masks and distancing are still required in many public spaces, including in much of the community of Zuleta, and violators may be subject to fines. In the case that the Zuleta community or the hacienda has stricter COVID-19 measures than the general population, students will be required to respect any such local norms. The hotel is nestled within the community of Zuleta and the chance of coming into contact with community members outside of the hotel is high. Field school members will also come into contact with hotel or hacienda staff during their daily duties. Some local community members may aid in some parts of the excavations and work alongside students. As such, masks will be required in all shared spaces of the hotel and hacienda except when showering, eating, or drinking as well as within enclosed spaces such as excavation units or in close proximity as when working at screens. In order to protect our field school members and the community, we require that all field school attendees wear masks when outside of the hotel and follow all standard sanitization and social distancing guidelines. Interaction with the local community must be limited to situations where everyone is masked when indoors and/or can ideally be outside. In the event of a COVID-19 outbreak amongst the community, we will isolate ourselves within the hotel and severely limit our interactions with the community except for essential services.

ACCOMMODATIONS

Students will stay in a small, but comfortable hotel in the community of Zuleta within walking distance of the Hacienda main entrance. Students will generally be required to share a room with one other student, and depending on the number of applicants, the program will occupy a dedicated section of the facility, or possibly the entire hotel. While blankets will be provided, the hotel is not heated and nighttime temperatures at that time of year can often be quite cold, so students may choose to bring a sleeping bag although many have found them unnecessary. It is recommended that students label their clothes as they are done in large batches and mix-ups occur regularly. Though the washing is done with care, garments that require special treatment can be problematic or might even be damaged, so odd fabrics and special-care clothing should be avoided.

Lunches will consist of sandwiches and field food prepared by students themselves from foods provided at the hotel each morning. Breakfasts and dinners will be eaten as a group at the hotel, prepared by local cooks. Local foods are very heavily potato and rice based but can be accompanied by a variety of fruits, vegetables, and proteins. Some accommodations can be made for vegans, vegetarians, and students with allergies or special dietary restrictions, but other specific dietary restrictions such as kosher or halal meals may not be feasible. All participants in a field school, students and staff, will wear masks while indoors (i.e. during lectures, during labs, in shared residential spaces, etc.). Regular hand washing will be a part of the project's daily schedule.

MANAGING COVID-19 CASES & OUTBREAKS

In the event of an outbreak amongst field school members, affected members will be quarantined in a separate room in the hotel. Members with mild symptoms will be quarantined until they exhibit no symptoms and test negative. If members exhibit symptoms near the end of the field school, we will

coordinate a plan to keep them quarantined in the hotel under supervision until it is safe for them to travel. Laundry for sick members will be carefully collected and washed separately from the rest of the field school. Should field school members or members of the community come down with COVID-19, we will coordinate the best appropriate response plan with community leaders.

In case field school members require medical attention, there is a small Rural Medical Clinic in the community and several hospitals in the town of Ibarra 30 minutes to the north. Transport to the clinic will be arranged by field school directors either through a field school vehicle, taxi, or ambulance depending on the need and severity of the case. Healthcare is socialized in Ecuador and free even for visitors from other countries, but private clinics typically have shorter wait times. Students are encouraged to purchase travel insurance that will cover their time in Ecuador and should consider two added weeks afterwards in case they begin to exhibit symptoms near the end of the program.

EQUIPMENT LIST

- Sturdy hiking boots
- Hat
- Sunscreen (It's expensive in Ecuador and you'll be using it a lot)
- Daypack/backpack
- Flashlight
- Any medication you need and prescription medication to last for the duration of the field school
- Water bottle/water bottles, at least 2 liters (you can buy disposable water bottles and reuse them if you're worried about space, but make sure you hold on to them)
- Marshalltown Pointing Trowel - 5" x 2"
- A rain jacket or rain poncho
- A warm jacket
- A towel
- A laptop computer (not required but if you have one and can bring it, you may find it useful while working on your research project)
- Personal protective equipment including gloves and face masks for the duration of the field school

As noted above, the sun is intense at this altitude and days can seem much hotter than the recorded temperature, and nights can often be cold. Because of the thin air, a bank of clouds during the day can also drop the temperatures quickly and students should be prepared. In general, a layered approach to clothing is best, and students may find themselves stripping off layers or quickly adding them several times during the day.

COURSE SCHEDULE

All IFR field schools begin with safety orientation. This orientation addresses local and program protocols concerning student behavior, appropriate attire, local practices and sensibilities that may be unfamiliar, potential fauna and flora hazards, IFR harassment and discrimination policies, and the student Code of Conduct.

Note: Ideally, students will begin readings before the start of the field school. Readings should be completed by the date on which they are listed. Recommended readings relate directly to the associated lecture topics. More advanced students, such as those who are about to complete or have completed

their undergraduate degree and are looking towards applying to graduate programs, are strongly encouraged to complete as many of the recommended readings as they can.

The regular work week will consist of 7-hour in-field work days Monday through Friday with a 30-minute lunch break in the field. Breakfast at the hotel will be at 7am where students will also make and pack their own lunch to be eaten in the field. We will depart the hotel at 8am to begin field activities and until 3pm when students will be allowed to return to the hotel to clean up before lectures or dinner. On days where lectures are scheduled, students will arrive promptly to the lecture area by 5pm having read the associated readings and will be ready to take notes and ask questions. Dinner will be held after the scheduled lecture time at 7pm. The lecture schedule will generally be adhered to but could change based on the availability of visiting experts. Most of the lectures will be at the hotel, but some may occur at the Hacienda or in the field. Unexpected visitors may be invited to present previously unannounced lectures and students should be prepared to attend and take notes. Cultural events such as musical guests or talks from local leaders may be held in the evening or accompany dinner. Students will be informed ahead of time of any changes to the lecture schedule.

Saturday will largely be dedicated to planned field trips or cultural excursions which generally begin after breakfast. Although three field trips are listed on the schedule, we may add additional field trips or change the scheduled date. Sundays will be free days for students, though occasional short field trips to nearby sites may be available to those who are interested. Otherwise, students will be allowed to spend these days as they wish as long as they adhere to the project's COVID-19 protocols and remain within walking distance of the Zuleta community. They will not be able to travel by car or by bus unless as part of the field school activities and must limit their interactions with the Zuleta community to masked, outdoor, and socially distanced engagements. Students are welcome and even encouraged to explore the community and the hacienda area on foot as long as they return to the hotel by 7pm.

Readings Prior to Arrival:

Hester, Thomas R., Harry J. Shafer, and Kenneth L. Feder (2009) Chapter 1: Introduction and Chapter 2: Goals of Archaeological Investigation. In *Field Methods in Archaeology*. Pp. 1-20. London and New York: Taylor & Francis.

Hester, Thomas R., Harry J. Shafer, and Kenneth L. Feder (2009) Chapter 4: Site Survey and Chapter 5: Methods of Excavation. In *Field Methods in Archaeology*. Pp. 41-112. London and New York: Taylor & Francis.

Currie, Elizabeth J. (2001) A Late Period Caranqui Chiefdom in the Northern Highlands of Ecuador: Archaeological Investigations at Hacienda Zuleta. Internet Archaeology 10. Available from: http://intarch.ac.uk/journal/issue10/currie_index.html.

Week 1	**Monday July 10-Sunday July 16**	
Monday, July 10	8:00 AM-12:00 PM	Airport Pickups
	12:00 PM	Lunch
	1:00-7:00 PM	Airport Pickups
	7:00 PM	Dinner
	8:00 PM-2:00 AM	Airport Pickups
Tuesday, July 11	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Introduction to Project & Hacienda Zuleta
	12:00 PM	Lunch

	12:30-5:00 PM	Site Tour
	5:00-7:00PM	**Lecture 1: Field Methods I – General Survey and Excavation**
	7:00 PM	Dinner
	Lecture Readings:	
	Hester, Thomas R., Harry J. Shafer, and Kenneth L. Feder (2009) Chapter 6: Data Preservation: Recording and Collecting. In *Field Methods in Archaeology*. Pp. 113-142. London and New York: Taylor & Francis. Hester, Thomas R., Harry J. Shafer, and Kenneth L. Feder (2009) Chapter 7: The Handling and Conservation of Artifacts in the Field. In *Field Methods in Archaeology*. Pp. 143-158. London and New York: Taylor & Francis.	
	Recommended Readings:	
	Uhle, Max (1954[1923]) The Aims and Results of Archaeology. In *Max Uhle, 1856-1944: A Memoir of the Father of Peruvian Archaeology*. John H. Rowe, ed. & trans. Pp. 54-100. Berkeley: University of California Press.	
Wednesday, July 12	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Introduction to Fieldwork
	12:00 PM	Lunch
	12:30-3:00 PM	Fieldwork
	3:00-5:00PM	Free Time
	5:00-7:00PM	Students write notes or work on research project
	7:00 PM	Dinner
Thursday, July 13	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Fieldwork
	12:00 PM	Lunch
	12:30-3:00 PM	Fieldwork
	3:00-5:00 PM	Free Time
	5:00-7:00PM	**Lecture 2: Regional History I – The Integration Period**
	7:00 PM	Dinner
	Lecture Readings:	
	Athens, J. Stephen (1992) Ethnicity and Adaptation: The Late Period-Cara Occupation in Northern Highland Ecuador.	
	Recommended Readings:	
	Bray, Tamara (2008) Late Pre-Hispanic Chiefdoms of Highland Ecuador. In *Handbook of South American Archaeology*. H. Silverman and H. Isbell, eds. Pp 527-543, Vol 3. Springer, New York.	
Friday, July 14	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Fieldwork
	12:00 PM	Lunch
	12:30-3:00 PM	Fieldwork
	3:00-5:00 PM	Free Time
	5:00-7:00PM	Students write notes or work on research project
	7:00 PM	Dinner

Saturday, July 15	All Day	Field Trip to Yahuarcocha and the Caranqui Baths
Sunday, July 16	All Day	Free Day (Students are required to return to lodging by 7:00 PM)
Week 2	**Monday July 17-Sunday July 23**	
Monday, July 17	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Fieldwork
	12:00 PM	Lunch
	12:30-3:00 PM	Fieldwork
	3:00-5:00 PM	Free Time
	5:00-7:00PM	Students write notes or work on research project
	7:00 PM	Dinner
Tuesday, July 18	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Introduction to Project & Hacienda Zuleta
	12:00 PM	Lunch
	12:30-5:00 PM	Site Tour
	5:00-7:00PM	**Lecture 3: Regional Geography – Climate, Volcanism, and Wetland Agriculture**
	7:00 PM	Dinner
	Lecture Readings:	
	Knapp, Gregory, and William M. Denevan (1985) The Use of Wetlands in the Prehistoric Economy of the Northern Ecuadorian Highlands. In *Prehistoric Intensive Agriculture in the Tropics*, edited by Ian S. Farrington, pp. 185-207. Oxford: British Archaeological Reports.	
	Recommended Readings:	
	Knapp, Gregory, and Patricia A. Mothes (1998) Quilotoa Ash and Human Settlements in the Equatorial Andes. In *Actividad Volcánica y Pueblos Precolombinos en el Ecuador*, edited by Patricia Mothes, pp. 149-156. Abya-Yala, Quito. Ledru, Marie-Pierre, Vincent Jomelli, Pablo Samaniego, Mathias Vuille, S. Hidalgo, Marjiori Herrera, and C. Ceron (2013) The Medieval Climate Anomaly and the Little Ice Age in the Eastern Ecuatorial Andes. *Climate of the Past* 9(1):307-321.	
Wednesday, July 19	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Fieldwork
	12:00 PM	Lunch
	12:30-3:00 PM	Fieldwork
	3:00-5:00PM	Free Time
	5:00-7:00PM	Students write notes or work on research project
	7:00 PM	Dinner
Thursday, July 20	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Fieldwork
	12:00 PM	Lunch
	12:30-3:00 PM	Fieldwork
	3:00-5:00 PM	Free Time
	5:00-7:00PM	**Lecture 4: Archaeological Theory I – Implementing Theory**
	7:00 PM	Dinner

	Lecture Readings:	
	Trigger, Bruce G. (2006) Chapter 9: Pragmatic Synthesis. In *A History of Archaeological Thought*. Pp. 484-528. Cambridge: Cambridge University Press.	
	Recommended Readings:	
	Trigger, Bruce G. (2006) Chapter 10: The Relevance of Archaeology. In *A History of Archaeological Thought*. Pp. 529-548. Cambridge: Cambridge University Press.	
Friday, July 21	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Fieldwork
	12:00 PM	Lunch
	12:30-5:00 PM	Fieldwork
	5:00-7:00PM	**Talk on Hacienda Zuleta History by owner Fernando Polanco (no readings)**
	7:00 PM	Dinner
Saturday, July 22	All Day	Field Trip to Inka Fortress of Pesillo
Sunday, July 23	All Day	Free Day (Students are required to return to lodging by 7:00 PM)
Week 3	**Monday July 24-Sunday July 30**	
Monday, July 24	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Fieldwork
	12:00 PM	Lunch
	12:30-3:00 PM	Fieldwork
	3:00-5:00 PM	Free Time
	5:00-7:00PM	Students write notes or work on research project
	7:00 PM	Dinner
Tuesday, July 25	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Introduction to Project & Hacienda Zuleta
	12:00 PM	Lunch
	12:30-5:00 PM	Site Tour
	5:00-7:00PM	**Lecture 5: Field Methods II – Geoarchaeology and Paleoecology**
	7:00 PM	Dinner
	Lecture Readings:	
	Rapp, George, and Christopher L. Hill (2006) Chapter 2: Sediments, Soils, and Environmental Interpretations. In *Geoarchaeology*. 2nd ed. Pp. 25-59. Yale University Press: New Haven and London. Pearsall, Deborah M. (2015) Chapter 1: The Paleoethnobotanical Approach. In *Paleoethnobotany: A Handbook of Procedures*. 3rd edition. Walnut Creek, California: Routledge.	
	Recommended Readings:	
	Hester, Thomas R., Harry J. Shafer, and Kenneth L. Feder (2009) Chapter 10: Stratigraphy: Recording and Collecting. In Field Methods in Archaeology. Pp. 235-252. London and New York: Taylor & Francis. Wilson, Clare, Ian A. Simpson, and Elizabeth J. Currie (2002) Soil Management in Pre-Hispanic Raised Field Systems: Micromorphological Evidence from Hacienda Zuleta, Ecuador. *Geoarchaeology* 17(3):261-283.	

Wednesday, July 26	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Fieldwork
	12:00 PM	Lunch
	12:30-3:00 PM	Fieldwork
	3:00-5:00PM	Free Time
	5:00-7:00PM	Students write notes or work on research project
	7:00 PM	Dinner
Thursday, July 27	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Fieldwork
	12:00 PM	Lunch
	12:30-3:00 PM	Fieldwork
	3:00-5:00 PM	Free Time
	5:00-7:00PM	**Lecture 6: Regional History II – Inka and Spanish Invasions**
	7:00 PM	Dinner
	Lecture Readings:	
	Brown, David O., Byron Camino, and Mark D. Willis (2010) Some observations on Inka Fortresses of Western Highland Ecuador. INPC Journal 2:42-56. Brown, David O. (1998) Water and Power in the Provinces: Water Management in Inka Centers of the Central Highlands of Peru. Tawantinsuyu 5:23-36.	
	Recommended Readings:	
	Bray, Tamara L., and José H. Echeverría Almeida (2014) The Late Imperial Site of Inca-Caranqui, Northern Highland Ecuador: At the End of Empire. Ñawpa Pacha: *Journal of Andean Archaeology* 34(2):177-199. Rowe, John Howland (2011) Ecuador under the Inca Empire: The Incas in Quito. In *Costume and History in Highland Ecuador*. Ann Pollard Rowe, ed. Pp. 70-84, 318-320. Austin: University of Texas Press.	
Friday, July 28	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Fieldwork
	12:00 PM	Lunch
	12:30-5:00 PM	Fieldwork
	5:00-7:00PM	Free Time
	7:00 PM	Dinner
Saturday, July 29	All Day	Participant Archaeology – Traditional Pottery in La Rinconada de Angochagua
Sunday, July 30	All Day	Free Day (Students are required to return to lodging by 7:00 PM)
Week 4		**Monday July 31-Sunday Aug. 6**
Monday, July 31	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Fieldwork
	12:00 PM	Lunch
	12:30-3:00 PM	Fieldwork
	3:00-5:00 PM	Free Time

	5:00-7:00PM	Students write notes or work on research project
	7:00 PM	Dinner
Tuesday, Aug. 1	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Introduction to Project & Hacienda Zuleta
	12:00 PM	Lunch
	12:30-5:00 PM	Site Tour
	5:00-7:00PM	**Lecture 7: Research Design –Research and Complex Societies y**
	7:00 PM	Dinner
	Lecture Readings:	
	Hechler, Ryan Scott (2021) Over the Andes, and Through their Goods: Integration Period Relations in Northern Ecuador. In *The Archaeology of the Upper Amazon: Complexity and Interaction in the Andean Tropical Forest*. Ryan Clasby and Jason Nesbitt, eds. Pp. 208-227. Gainesville: University Press of Florida. Carneiro, Robert L. (1998) What Happened at the Flashpoint?: Conjectures on Chiefdom Formation at the Very Moment of Conception. In *Chiefdoms and Chieftaincy in the Americas*. Elsa M. Redmond, ed. Pp. 18-42. Gainesville: University Press of Florida.	
	Recommended Readings:	
	Villamarín, Juan A., and Judith E. Villamarín (1999) Chiefdoms: The Prevalence and Persistence of "Señoríos Naturales" 1400 to European Conquest. In *The Cambridge History of the Native Peoples of the Americas*. Frank Salomon and Stuart B. Schwartz, eds. Pp. 577-667, Vol. 3: South America, Part 1. Cambridge: Cambridge University Press. Read: • Some General Characteristics of Chiefdoms (pp. 622-628) • Chiefdoms and Empire in the Andean Regions (pp. 628-629) • Northern Andes (Ecuador) (pp. 648-653) • Conclusion (pp. 653-656) Hester, Thomas R., Harry J. Shafer, and Kenneth L. Feder (2009) Chapter 3: Research Design and Sampling Techniques. In *Field Methods in Archaeology*. Pp. 21-40. London and New York: Taylor & Francis.	
Wednesday, Aug. 2	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Fieldwork
	12:00 PM	Lunch
	12:30-3:00 PM	Fieldwork
	3:00-5:00PM	Free Time
	5:00-7:00PM	Students write notes or work on research project
	7:00 PM	Dinner
Thursday, Aug. 3	7:00 AM	Students meet in dining area for breakfast and to make their own lunch
	8:00 AM-12:00 PM	Fieldwork
	12:00 PM	Lunch
	12:30-3:00 PM	Fieldwork
	3:00-5:00 PM	Free Time
	5:00-7:00PM	**Lecture 8: Archaeological Theory II – Evolutionary Theory**
	7:00 PM	Dinner
	Lecture Readings:	

	Trigger, Bruce G. (1990) Monumental Architecture: A Thermodynamic Explanation of Symbolic Behaviour. *World Archaeology* 22(2):119-132.	
	Recommended Readings:	
	Bray, Tamara (2005) Multi-Ethnic Settlement and Interregional Exchange in Pimampiro, Ecuador. *Journal of Field Archaeology* 30(2):119-141.	
Friday, Aug. 4	7:00 AM 8:00 AM-12:00 PM 12:00 PM 12:30-5:00 PM 5:00-7:00PM 7:00 PM	Students meet in dining area for breakfast and to make their own lunch Fieldwork Lunch Fieldwork Free Time Dinner
Saturday, Aug. 5	All Day	Research Project Workday
Sunday, Aug. 6	All Day	Free Day (Students are required to return to lodging by 7:00 PM)
Week 5	**Monday Aug. 7-Saturday Aug. 12**	
Monday, Aug. 7	All Day	Final Day of Excavations - Students draw profiles and finalize paperwork and notes
Tuesday, Aug. 8	All Day	Close and Backfill Excavations
Wednesday, Aug. 9	All Day	Organize materials and prepare them for storage
Thursday, Aug. 10	All Day	Final Research Project Presentations
Friday, Aug. 11	8:00 AM-12:00 PM After 12:00 PM	Continue with project presentations & conduct Project Evaluations End of field season celebration
Saturday, Aug. 12	All Day	Students are taken to airport or begin their travels

REQUIRED READINGS

PDF files of all mandatory readings will be provided to enrolled students via a shared Dropbox folder. Students are encouraged to download and/or print readings prior to traveling. Course participants are expected to be prepared to engage the discussions led by facilitators, all of whom will be looking for compelling evidence that students have read and thought about the assigned readings prior to the scheduled day on which they are first discussed.

Athens, J. Stephen

1992 Ethnicity and Adaptation: The Late Period-Cara Occupation in Northern Highland Ecuador.

Brown, David O.

1998 Water and Power in the Provinces: Water Management in Inka Centers of the Central Highlands of Peru. *Tawantinsuyu* 5:23-36.

Brown, David O., Byron Camino, and Mark D. Willis

2010 Some observations on Inka Fortresses of Western Highland Ecuador. *INPC Journal* 2:42-56.

Carneiro, Robert L.

1998 What Happened at the Flashpoint?: Conjectures on Chiefdom Formation at the Very Moment of Conception. In *Chiefdoms and Chieftaincy in the Americas*. Elsa M. Redmond, ed. Pp. 18-42. Gainesville: University Press of Florida.

Currie, Elizabeth J.

2001 A Late Period Caranqui Chiefdom in the Northern Highlands of Ecuador: Archaeological Investigations at Hacienda Zuleta. *Internet Archaeology* 10. Available from: http://intarch.ac.uk/journal/issue10/currie_index.html.

Hechler, Ryan Scott

2021 Over the Andes, and Through their Goods: Integration Period Relations in Northern Ecuador. In *The Archaeology of the Upper Amazon: Complexity and Interaction in the Andean Tropical Forest*. Ryan Clasby and Jason Nesbitt, eds. Pp. 208-227. Gainesville: University Press of Florida.

Hester, Thomas R., Harry J. Shafer, and Kenneth L. Feder

2009 Chapter 1: Introduction. In *Field Methods in Archaeology*. Pp. 41-112. London and New York: Taylor & Francis.

Chapter 2: Goals of Archaeological Investigation. In *Field Methods in Archaeology*. Pp. 1-20. London and New York: Taylor & Francis.

Chapter 4: Site Survey. In *Field Methods in Archaeology*. Pp. 41-112. London and New York: Taylor & Francis.

Chapter 5: Methods of Excavation. In *Field Methods in Archaeology*. Pp. 41-112. London and New York: Taylor & Francis.

Chapter 6: Data Preservation: Recording and Collecting. In *Field Methods in Archaeology*. Pp. 113-142. London and New York: Taylor & Francis.

Chapter 7: The Handling and Conservation of Artifacts in the Field. In *Field Methods in Archaeology*. Pp. 143-158. London and New York: Taylor & Francis.

Knapp, Gregory, and William M. Denevan

1985 The Use of Wetlands in the Prehistoric Economy of the Northern Ecuadorian Highlands. In *Prehistoric Intensive Agriculture in the Tropics*, edited by Ian S. Farrington, pp. 185-207. Oxford: British Archaeological Reports.

Pearsall, Deborah M.

2015 Chapter 1: The Paleoethnobotanical Approach. In *Paleoethnobotany: A Handbook of Procedures*. 3rd edition. Walnut Creek, California: Routledge.

Rapp, George, and Christopher L. Hill

2006 Chapter 2: Sediments, Soils, and Environmental Interpretations. In *Geoarchaeology*. 2nd ed. Pp. 25-59. Yale University Press: New Haven and London.

Trigger, Bruce G.

1990 Monumental Architecture: A Thermodynamic Explanation of Symbolic Behaviour. *World Archaeology* 22(2):119-132.

Trigger, Bruce G.

2006 Chapter 9: Pragmatic Synthesis. In *A History of Archaeological Thought*. Pp. 484-528. Cambridge: Cambridge University Press.

RECOMMENDED READINGS

Bray, Tamara

2005 Multi-Ethnic Settlement and Interregional Exchange in Pimampiro, Ecuador. Journal of Field Archaeology 30(2):119-141.

2008 Late Pre-Hispanic Chiefdoms of Highland Ecuador. In Handbook of South American Archaeology. H. Silverman and H. Isbell, eds. Pp 527-543, Vol 3. Springer, New York.

Bray, Tamara L., and José H. Echeverría Almeida

2014 The Late Imperial Site of Inca-Caranqui, Northern Highland Ecuador: At the End of Empire. Ñawpa Pacha: Journal of Andean Archaeology 34(2):177-199.

Hester, Thomas R., Harry J. Shafer, and Kenneth L. Feder

2009 Chapter 3: Research Design and Sampling Techniques. In Field Methods in Archaeology. Pp. 21-40. London and New York: Taylor & Francis.

Chapter 10: Stratigraphy: Recording and Collecting. In Field Methods in Archaeology. Pp. 235-252. London and New York: Taylor & Francis.

Knapp, Gregory, and Patricia A. Mothes

1998 Quilotoa Ash and Human Settlements in the Equatorial Andes. In Actividad Volcánica y Pueblos Precolombinos en el Ecuador, edited by Patricia Mothes, pp. 149-156. Abya-Yala, Quito.

Ledru, Marie-Pierre, Vincent Jomelli, Pablo Samaniego, Mathias Vuille, S. Hidalgo, Marjiori Herrera, and C. Ceron

2013 The Medieval Climate Anomaly and the Little Ice Age in the Eastern Ecuatorial Andes. Climate of the Past 9(1):307-321.

Rowe, John Howland

2011 Ecuador under the Inca Empire: The Incas in Quito. In Costume and History in Highland Ecuador. Ann Pollard Rowe, ed. Pp. 70-84, 318-320. Austin: University of Texas Press.

Trigger, Bruce G.

2006 Chapter 10: The Relevance of Archaeology. In A History of Archaeological Thought. Pp. 529-548. Cambridge: Cambridge University Press.

Uhle, Max

1954 [1923] The Aims and Results of Archaeology. In *Max Uhle, 1856-1944: A Memoir of the Father of Peruvian Archaeology*. John H. Rowe, ed. & trans. Pp. 54-100. Berkeley: University of California Press.

Villamarín, Juan A., and Judith E. Villamarín

1999 Chiefdoms: The Prevalence and Persistence of "Señoríos Naturales" 1400 to European Conquest. In The Cambridge History of the Native Peoples of the Americas. Frank Salomon and Stuart B. Schwartz, eds. Pp. 577-667, Vol. 3: South America, Part 1. Cambridge: Cambridge University Press. Read:

- Some General Characteristics of Chiefdoms (pp. 622-628)
- Chiefdoms and Empire in the Andean Regions (pp. 628-629)
- Northern Andes (Ecuador) (pp. 648-653)
- Conclusion (pp. 653-656)

Wilson, Clare, Ian A. Simpson, and Elizabeth J. Currie

2002 Soil Management in Pre-Hispanic Raised Field Systems: Micromorphological Evidence from Hacienda Zuleta, Ecuador. Geoarchaeology 17(3):261-283.