

Curaçao Cultural Landscape Project
Proyekto Paisahe Kultural di Kòrsou
Cultureel Landschap Project Curaçao
Program Dates: July 3 – August 5, 2022

ARCH 433-3: Background to Field Work
ARCH 435-6: Field Work Practicum

FIELD SCHOOL DIRECTOR

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FIELD SCHOOL PARTNERS, COLLABORATORS, & STAFF

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Field School Assistant: TBD

PREREQUISITES & CREDITS

ARCH 434, ARCH 372, or permission of instructor; preference given to students who have taken ARCH 340 and ARCH 388.

ARCH 433-3 provides a general background to field work and research design, including discussion of the ethnohistoric and archaeological contexts for field research. ARCH 435-6 runs concurrently and allows students to apply background knowledge and specific techniques learned in ARCH 433 and ARCH 434 Archaeological Field Methods. Students who have not previously taken ARCH 434 or who need additional credits may register to take ARCH 434 in the summer session prior to the field school or may arrange to complete alternative course credit through the Department of Archaeology (ARCH 479 and ARCH 480 are commonly taken as substitutions).

FIELD SCHOOL DESCRIPTION

Surrounded by the vivid blue waters of the Caribbean Sea, the island of Curaçao has beckoned many to call her home. Today, Curaçao is part of the Kingdom of the Netherlands, but the first settlers to reach her shores came from South America by canoe 4,000 – 5,000 years ago. More recently, Spanish, Dutch, and enslaved Africans arrived. Each new group has sought to adapt to and shape the local environment to suit their lifeways. The legacy of these environmental interactions is archived in Curaçao's archaeological and paleoecological records. The Curaçao Cultural Landscape Project (CCLP) examines the dynamics of human-environment relationships preserved in these records, seeking to reconstruct landscape histories over deep time and inform contemporary Caribbean environmental issues. A collaboration of five international partners, we are pursuing long-term, high-resolution

records for anthropogenic habitat alteration and biotic change from earliest Indigenous settlement on Curaçao to the modern era.

In 2022, the Project will conduct pedestrian and geophysical survey, initiate excavation, map sites and historic structures, and collect paleoenvironmental samples. Zooarchaeological remains recovered through excavation will be used to reconstruct trends in animal exploitation and invasive species ecology. The Project also plans sediment sampling, coring, and soils analyses to investigate formation processes, erosion, and hydrology. CCLP's research objectives are grounded in the conviction that knowledge of long-term landscape history is critical for understanding and managing contemporary environmental challenges in the Caribbean. This history provides reference conditions to contextualize modern ecological states and assist in identifying the social and environmental factors which foster ecosystem resilience at timescales beyond the human lifespan.

Students receive practical training in the methods of environmental archaeology, working at pre-Columbian and colonial sites around Jan Thiel Lagoon and Rif Sint Marie, where historic plantations and an important bird conservation area are today found. Field instruction is complemented by practical lab experience, lectures, and field trips. This is a research-driven project designed to provide students with experiential learning and the opportunity to contribute actively to paleoecological knowledge.

COURSE OBJECTIVES

The CCLP field school seeks to provide students with experience and conceptual understanding of environmental archaeology methods, how these may be used to understand human ecodynamics and landscape history, and the relevance of these to contemporary environmental issues. To support these objectives, students receive instruction and training in the following areas.

- 1. Practical application of standard field and lab methods**, including survey and excavation; GPS use; field record keeping; profile and unit drawing; artifact cleaning, sorting, and storage; cataloguing and database entry of finds. Other techniques (e.g., photogrammetry) may be covered, time permitting.
- 2. Zooarchaeology**
 - 2.1. Principles and methods of zooarchaeological field sampling and recovery.
 - 2.2. Components of primary and secondary zooarchaeological analysis, including quantification by NISP and MNI, identification of cut marks, and taphonomy.
 - 2.3. Assigning and sorting specimens to faunal class (e.g., bird, fish, gastropod, echinoid) based on diagnostic features.
 - 2.4. Specimen identification for common local fish, mammals, molluscs, and other invertebrates, such as parrotfish, sea turtle, and queen conch.
- 3. Geophysical survey and geoarchaeology**
 - 1.1. Principles and applications of GPR, magnetic gradiometry, and other geophysical survey methods.
 - 1.2. Field training in the use of GPR, gradiometry, and magnetic susceptibility equipment; introduction to data processing and interpretation of radargrams and gradiometry results.
 - 1.3. Field sampling and recovery methods for sediment bulk and pinch samples, monolith samples, and coring of targeted geophysical anomalies.

- 1.4. Principles of grain size analysis and loss on ignition for testing sediment composition and organic content; field testing sediment pH.
- 1.5. Interpreting sediments and writing sediment/soil descriptions, including sediment ribboning, Munsell and clast descriptions, and grain size sorting.

4. Sediment Coring of Lagoons for Paleoenvironmental Reconstruction

- 4.1. Introduction to paleoecology and archaeobotany
- 4.2. Principles and applications of sediment coring
- 4.3. Field training in coring techniques

5. Survey of Curaçaoan and Caribbean culture history, archaeology, and environmental history

- 5.1. Recognition of material culture expressions and their significance
- 5.2. Major debates and issues in Caribbean pre-Columbian and post-contact archaeology
- 5.3. Caribbean environment, geography, historical ecology, and anthropogenic environmental impacts
- 5.4. Critical assessment of colonial accounts of Caribbean Indigenous peoples

The first week introduces students to Curaçaoan archaeology, the regional context of study, project research design, and logistical considerations for field work. In Weeks 1, 2, and 3, students receive specialist training in zooarchaeology, geoarchaeology, geophysical survey, and paleoecology embedded into the ongoing field and lab activities and supported by lectures and readings. Weeks 4 and 5 focus on activities related to data interpretation, archaeological reconstruction, colonial legacies, and community engagement. At the end of week four, students organize and participate in a public “open house” where finds from the season are shared with the community. Experiential learning activities in Week 5 relate to the field season’s conclusion and include profile drawing, completion of lab activities, collections care and curation, equipment inventory, and record archiving. Practical training is reinforced by lectures and readings that link research methods to the theoretical approaches used in CCLP research and the region’s archaeology and history. Students will gain intercultural competence through structured lectures and field trips, combined with critical reflection exercises.

LEARNING OUTCOMES

After successfully completing this field school students will:

1. Be familiar with the fundamental principles and methods of excavation and recording of field activities and results; be able to apply these to archaeological contexts.
2. Understand the elements of research design and the relationship of data, methods, and theory.
3. Be familiar with relational database design and the use of digital tools for mapping and data curation.
4. Be able to apply standard methods for processing and curating excavated finds.
5. Be familiar with the archaeology, history, and environmental history of the Caribbean.
6. Understand some of the main theoretical frameworks used in environmental archaeology; understand how environmental archaeology data can be applied to contemporary environmental challenges.
7. Understand the general concepts, methods, and theories of zooarchaeology and be able to apply these to identify and quantify zooarchaeological specimens.
8. Comprehend basic principles of archaeological geophysics and geoarchaeology techniques, their operation and application to archaeological survey and research.

9. Understand the basic principles of paleoecology and archaeobotany, and the reconstruction of paleoenvironments from sediment cores.
10. Critically reflect upon cultural differences; develop skills in intercultural competence with recognition of and respect for cultural differences and a willingness to adapt to these.

ASSIGNMENTS & GRADING

Student performance will be evaluated based on the following.

Participation	25%
Field notebook	35%
Mid-term quiz	15%
Final quiz	25%

Participation: The participation mark is based on student engagement in field, lab, and lecture activities, involvement in discussions and intercultural awareness exercises, enthusiasm, and initiative.

Field Notebook and Report: The field notebook is evaluated according to 1) clarity and legibility; 2) comprehensiveness and detail of descriptions regarding activities, nature of daily findings, corrections and updates to past notes, photo and find log as well as use of supporting drawings/illustrations; 3) appropriate application of concepts and techniques learned in field and lab settings, lectures, and readings; 4) written interpretations and explanations offered in relation to findings; 5) inclusion of standard elements, e.g. date, weather, start and finish time, crew present, page numbers, etc. At least once, each students will write a report summarizing their team's activities for the day, which will be evaluated based on the above criteria.

Field notebooks are turned in for review in Week 2 and again at the end of the program. Field notebooks and reports will be retained by the project as a record of field work.

Mid-term Quiz: A quiz is administered in Week 3 to test knowledge of Caribbean environment, geography, and archaeological principles. The quiz is a mix of short answer and multiple-choice questions.

Final Quiz: The final quiz employs multiple choice questions, short answers/essays, and practical exercises, to test overall learning in the areas of the zooarchaeology, mapping, geophysical survey, geoarchaeology, paleoecology, and Curaçaoan and Caribbean history and archaeology.

Final course grades are assigned according to the scale below.

A+	96.00-100.00%	C+	66.00-70.99%
A	91.00-95.99%	C	61.00-65.99%
A-	86.00-90.99%	C-	56.00-60.99%
B+	81.00-85.99%	D	51.00-55.99%
B	76.00-80.99%	F	<51.00%
B-	71.00-75.99%		

For additional details and grading policies see SFU Grading Systems and Policies

TRAVEL & HEALTH NOTICES

Citizens of countries other than Canada are asked to check the embassy website page in their home country for specific visa requirements.

This field school involves prolonged work outdoors under conditions which differ from British Columbia. You will be working in a semi-arid climate (subject to the rare, occasional downpour), with high humidity and daytime temperatures of ~26-33°C. You will need to drink 3–5 liters of water during a field day to stay hydrated. Because of mosquitos, high UV exposure, and thorny, noxious plants, you will need to wear long-sleeve shirts and pants and apply high-SPF sunscreen in the field.

Tetanus and Covid-19 vaccination are a requirement of the project's local partner, NAAM. In addition, students are strongly encouraged to obtain typhoid and hepatitis A and B vaccines (Twinrix), as well as a tetanus booster, if lapsed. Students should consult their physician at least six months in advance of travel as hep A and B vaccination requires several scheduled doses. If you are travelling from or have transited through an area where yellow fever occurs, you will need to show proof of vaccination to enter Curaçao. For the most current vaccination information see: <https://travel.gc.ca/destinations/curacao>

Curaçao lies within a zika transmission area. This is a viral infection contracted through the bite of infected mosquitoes and sexual contact. It can cause a variety of mild to severe symptoms, including birth defects in unborn children. All students must familiarize themselves with preventative measures for Zika, dengue, Chikungunya, and Covid-19. Current guidelines relating to this and other travel, health, and safety advisories can be found at:

Government of Canada Global Affairs; Curaçao webpage: <https://travel.gc.ca/destinations/curacao>

TRAVEL & MEETING POINT

Students will fly into Curaçao (Hato) International Airport and rendezvous with staff by 8:00 pm July 3, 2022, at the Bed and Bike Hostel in the Pietermaai neighborhood of Willemstad, Curaçao. If you will be checking in after hours, please notify the instructor of your expected arrival time. Details and travel tips are provided in the pre-departure orientation. If you miss your flight connection or your arrival is delayed, please call, text, or email the project directors immediately. A local emergency cell phone number will be provided to all enrolled students.

LODGING & MEALS

Students will reside at the Bed and Bike Hostel, where they will enjoy free Wi-Fi, community kitchenette, access to patio and lounging space, an on-premises restaurant, and free use of a bicycle for riding around town. Bed and Bike is a short walk to supermarkets, restaurants, and other amenities. Students will have their own bed in a shared room, equipped with air conditioning, shared bathrooms, Wi-Fi, and access to guest kitchens and communal areas. Linens are provided. A per-load laundry service is available through the hostel for washing personal clothing.

Food and tap water on Curaçao are safe. No special precautions are required. Students will be responsible for their meals, with the exceptions of group dinners and breakfasts noted in the schedule below. You will need to pack a lunch, snack, and water into the field/lab each workday.

LANGUAGE

Most Curaçaoans are multilingual; Dutch, Papiamentu (Papiamentu), and English are the official languages of Curaçao, and Spanish is also commonly spoken. Papiamentu is a creole language that blends Portuguese, Dutch, Spanish, and various African languages. Learning basic Papiamentu words and phrases will help you in your interactions with locals and will be appreciated. To get you started, our project schedule includes Papiamentu terms for months and days of the week.

Papiamentu/u language resources:

<https://livingabroad.in/papiamento-phrases-how-to-speak-papiamento/>

<https://www.omniglot.com/language/phrases/papiamento.php>

<https://unilang.org/course.php?res=73#ci--11>

COURSE & FIELD SCHEDULE

The course and field schedule is subject to change due to weather or other unanticipated events. Field and lab days include a lunch and two snack breaks.

WEEK 1

Curaçao Cultural Landscape Project 2022 Field Season Schedule Proyekto Paisahe Kultural di Kòrsou 2022 skema di trabou den vèlt							
Colour Codes	Lab activities day: artifact cleaning; sorting; processing; database entry.	Field work day	Lectures, exams, & due dates	Group breakfast	Group dinner	Field trip, group activity, & public outreach	
Week 1	djadumingu 3-Juli/July Sunday	djaluna 4-Juli/July Monday	djamars 5-Juli/July Tuesday	djarason 6-Juli/July Wednesday	djaweps 7-Juli/July Thursday	djabièrnè 8-Juli/July Friday	djasabra 9-Juli/July Saturday
Morning	Arrival: fly into Hato International Airport, Willemstad Curaçao. Check into Bed and Bike Hostel by 8:00 pm (or arrange after hours check-in in advance)		Field Work	Field Work	Field Work		Field Work
		Group Breakfast & Field Start Orientation Meeting				Field Trip: Walking tour of historic Willemstad; visit Punda & Outrabanda landmarks & Kura Hulanda Museum of Slavery (wear good walking shoes). No transportation required	
		Student free time; groceries, banking, etc.	Lunch Break (field)	Lunch Break (field)	Lunch Break (field)		Lunch Break (field)
		Visit NAAM and lab facilities; equipment check and prep.	Field Work	Field Work	Field Work		Field Work
			Break	Break		Lecture (NAAM):	
			Lecture (NAAM)	Lecture (NAAM)			
		Meet & Greet Social					
					Group Dinner		
Evening							

Week 1 Lectures

July 4 morning	Breakfast; Orientation meeting; Language and cultural awareness activity (NAAM visit and orientation in afternoon)
July 5 afternoon	Topic: Introduction; CCLP research design project-specific field methods and site formation processes; Digital tools, techniques, and data management <i>Readings: Environmental Archaeology</i> (English Heritage) read pp. 8-15 on sampling and Case Study 2, pp. 30-31
July 6 afternoon	Topic: Archaeology and history of Curaçao; Caribbean Pre-Columbian history <i>Readings: Kraan et al. 2016; Havisser and Hofman 2015; Fitzpatrick 2015</i>
July 8 afternoon	Topic: Introduction to paleoecology and archaeobotany; Pre-Columbian environments <i>Readings: Maezumi et al. 2018a, Maezumi et al. 2018b</i>

WEEK 2

	djadumingu 10-Juli/July Sunday	djaluna 11-Juli/July Monday	djamars 12-Juli/July Tuesday	djarason 13-Juli/July Wednesday	djaweps 14-Juli/July Thursday	djabièrnè 15-Juli/July Friday	djasabra 16-Juli/July Saturday
Week 2							
Morning	Field Work	Student Free Day		Field Work	Field Work		
			Lab - Finds Processing/ Analysis			Lab - Finds Processing/ Analysis	
							Group Breakfast
	Lunch Break (field)		Lunch Break (lab)	Lunch Break (field)	Lunch Break (field)	Lunch Break (lab)	Field Trip: Guided walking tour of Hato Caves with walking tour of nearby Indian Trail Petroglyphs. Bus transportation
Afternoon	Field Work		Lab - Finds Processing/ Analysis	Field Work	Field Work	Lab - Finds Processing	
			Lecture (NAAM)		Lecture (NAAM)	Lecture (NAAM):	
Evening				Group Dinner			

Week 2 Lectures

July 12 afternoon	Topic: Zooarchaeology 1 – Comparative vertebrate osteology; Identification and Quantification; Kura Hulanda Slavery Museum critical reflection exercise <i>Readings: LeFebvre & Sharpe 2018; Peres 2010</i>
July 12 In lecture	Turn in field notebook
July 14 afternoon	Topic: Geoarch/Geophys Survey 1 – Introduction to archaeological geophysics; Fundamental concepts and the geophysical methods <i>Readings: Erenwein and Hargrave 2009, Chapters 1-2; Kvamme 2003</i>
July 15 afternoon	Topic: Zooarchaeology 2 – Taphonomy; Skeletal part representation; Recovery & analytic bias <i>Readings: Broughton & Miller 2016</i>

WEEK 3

	djadumingu 17-Juli/July Sunday	djaluna 18-Juli/July Monday	djamars 19-Juli/July Tuesday	djarason 20-Juli/July Wednesday	djaweps 21-Juli/July Thursday	djabièrnè 22-Juli/July Friday	djasabra 23-Juli/July Saturday
Week 3							
Morning	Field Work	Student Free Day	Field Work	Field Work		Field Work	Field Trip: Hike Christoffelpark Nature Area; visit Savonet Plantation Museum. A protected nature area known for wildlife, historic plantations, hiking, and Mt Christoffel, Curaçao's highest point. (pack lunch, water & snacks). Bus transportation
					Lab - Finds Processing/ Analysis.		
	Lunch Break (field)		Lunch Break (field)	Lunch Break (field)	Lunch Break (lab)	Lunch Break (field)	
Afternoon	Field Work		Field Work	Field Work	Lab - Finds Processing	Field Work	
			Quiz				
			Lecture (NAAM)			Lecture (NAAM)	
Evening							
						Group Dinner	

Week 3 Lectures

July 19 start of lecture **Mid-term quiz**

July 19 afternoon Topic: Geoarch/Geophys Survey 2 – Specific geophysical applications at different archaeological sites; Site survey, field design principles, and processing
Readings: Erenwein and Hargrave 2009, Chapters 3-4; Kvamme 2006, Chapter 10

July 22 afternoon Topic: Zooarchaeology 3 – Reconstructing foraging; Human behavioural ecology; Historical ecology; Anthropogenic impacts
Readings: Balée 2006; Giovas et al. 2013; Grouard et al. 2019

WEEK 4

	djadumingu 24-Juli/July Sunday	djaluna 25-Juli/July Monday	djamars 26-Juli/July Tuesday	djarason 27-Juli/July Wednesday	djaweps 28-Juli/July Thursday	djabièrnè 29-Juli/July Friday	djasabra 30-Juli/July Saturday
Week 4							
Morning	Field Work	Student Free Day		Field Work	Field Work		
			Lab - Finds Processing/ Analysis.			Lab - Finds Processing/ Analysis.	Group Breakfast
							NAAM - Open House set up
	Lunch Break (field)		Lunch Break (lab)	Lunch Break (field)	Lunch Break (field)	Lunch Break (lab)	
Afternoon	Field Work		Lab - Finds Processing	Field Work	Field Work	Lab - Finds Processing and Open House prep	CCLP-NAAM Open House Event and Archaeology Public Talk (students participate)
			Lecture (NAAM):		Lecture (NAAM):		
Evening							
				Caribbean Film & Popcorn Night (popcorn provided)			

Week 4 Lectures

July 26 afternoon Topic: Geoarch/Geophys Survey 3 – What is geoarchaeology? Soils, sediments and stratigraphy, and depositional environments.
Readings: Gladfeller 1977; Butzer 2008; Holiday 2009

July 28 afternoon Topic: Post-contact Caribbean and Curaçao; Contemporary challenges in Caribbean heritage resource management
Readings: Keegan and Hofman 2017, Chapter 8

WEEK 5

	djadumingu 31-Juli/July Sunday	djaluna 1-Augustus/August Monday	djamars 2-Augustus/August Tuesday	djarason 3-Augustus/August Wednesday	djaweps 4-Augustus/August Thursday	djabièrnè 5-Augustus/August Friday
Week 5						
Morning	Field Work	Student Free Day				Last Program Day Students depart for home or additional travel
			Lab - Finds Processing/ Analysis	Lab - Finds Processing/ Analysis	Lab - Archiving, equipment inventory and packing	
	Lunch Break (field)					
Afternoon	Field Work		Lunch Break (lab)	Lunch Break (lab)	Lunch Break (lab)	
			STAFF & STUDENTS OBTAIN COVID PCR TESTS FOR TRAVEL AS NEEDED	Lab - Archiving, equipment inventory and packing	Lab - Final close out	
					Students pack and prepare for travel	
	Final Lecture & Review					
Evening						
				Final Quiz		
					Farewell Group Dinner Celebration	

Week 5 Lectures

July 31 afternoon Topic: Post-excavation synthesis and interpretation: the legacy of human impact and current environmental issues in the Caribbean; Decolonizing Caribbean Archaeology; Community outreach and ethical engagement - review and reflection exercise
Readings: González-Tennant 2014

August 3 Evening **Final quiz**

August 4 By 7:00 pm **Turn in field notebook**

EQUIPMENT

Required Dig Kit: Your fees cover the cost of a dig kit which will be provided to you before leaving for the field. Students are responsible for bringing this equipment with them for use on the project. **Sharp objects (e.g., trowels, picks) should be packed in checked baggage.**

- Marshalltown Pointing Trowel 4" or 5" x 2.5"
- Rite-In-the -Rain field notebook. To be retained by the field school as part of the field records.
- Clipboard, pens, and pencils

- Heavy-duty waterproof neoprene gloves
- Brushes
- Wooden picks/excavation implements
- (other components will be provided on Curaçao)

Recommended materials and clothing:

- A laptop computer or tablet to review electronic PPT lectures and readings. Free Wi-Fi is available at the hostel.
- Any required medications or prescriptions to last for the duration of the field school
- One water jug, 3–5 liter capacity (you may also purchase several 1.5 L bottles of water on the island and refill these with tap water; bring two or three of these to site each day)
- Sun glasses with UV protection (polarized lenses recommended)
- Insect repellent containing DEET
- Sunscreen (at least 30 SPF)
- Several resealable plastic containers for packing lunch and snacks into the field/lab
- Lightweight emergency rain poncho
- Long-sleeved shirts and pants for field work, ideally made of quick-drying, lightweight, breathable fabric (shorts and tank tops are not suitable).
- Work or gardening gloves
- Quick drying shorts and t-shirt for wet-screening
- Closed-toed shoes with durable soles, such as running shoes or day hikers
- Hat with a wide brim
- Backpack
- Beach towel
- Aqua socks or Teva-style sandals for walking into ocean

STUDENT CONDUCT

Each student is responsible for his or her conduct as it affects the University community and field school. Academic dishonesty, in whatever form, is ultimately destructive of the values of the University. Furthermore, it is unfair and discouraging to the majority of students who pursue their studies honestly. Scholarly integrity is required of all members of the University in accord with the [SFU Code of Academic Integrity and Good Conduct](#). Suspected cases of academic misconduct may be referred to a designated University official and result in [penalties](#).

Students are responsible for adhering to the SFU Field School Code of Conduct:

[https://www.sfu.ca/cqlogin.html?resource=%2Fstudents%2Fstudyabroad%2Ffieldschools%2Fleading-a-field-school-extras%2FFS-Code-of-Conduct-Sample.html&\\$\\$login\\$\\$=%24%24login%24%24](https://www.sfu.ca/cqlogin.html?resource=%2Fstudents%2Fstudyabroad%2Ffieldschools%2Fleading-a-field-school-extras%2FFS-Code-of-Conduct-Sample.html&$$login$$=%24%24login%24%24)

REQUIRED READINGS

Required readings will be made available online prior to the project start.