SFU Environmental Archaeology Field School

Curaçao Cultural Landscape Project
Proyekto Paisahe Kultural di Kòrsou
Cultureel Landschap Project Curaçao

Program Dates: May 31 – July 3, 2020

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

FIELD SCHOOL DIRECTOR

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FIELD SCHOOL ASSISTANT STAFF & PARTNERS

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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 5400 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 four international partners, we are pursuing long-term, high-resolution records for anthropogenic habitat alteration and biotic change from earliest Amerindian settlement on Curaçao to the modern era.

In 2020, 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. Such histories provide 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, where several 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**;** total station use; field record keeping; profile and unit drawing; artifact cleaning, sorting, and storage; cataloguing and database entry of finds.

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. **Survey of Curaçaoan and Caribbean culture history, archaeology and environmental history**
    4.1. Recognition of material culture expressions and their significance
    4.2. Major debates and issues in Caribbean pre-Columbian and post-contact archaeology
    4.3. Caribbean environment, geography, historical ecology, and anthropogenic environmental impacts
    4.4. Critical assessment of colonial accounts of indigenous Caribbean 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 and geophysical survey 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. Gain familiarity with relational database design and the use of digital tools for mapping and data curation.
4. Be able to use standard methods for processing and curating excavated finds.
5. Gain familiarity 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. 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	20%
Field notebook	35%

Mid-term quiz	15%
Final exam	30%

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: 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) interpretation and explanation offered in relation to findings; 5) inclusion of standard elements, e.g. date, weather, start and finish time, crew present, page numbers, etc.

Field notebooks are turned in for review in Week 2 and again at the end of the program. They 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.

Exam: The final exam employs multiple choice questions, short answers/essays, and practical exercises, to test overall learning in the areas of the zooarchaeology, mapping and geophysical survey, geoarchaeology, 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 tropical climate subject to sudden downpours, with high humidity and daytime temperatures in the high 80s and low 90s^{o}F (~31-34^{o}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 in the field.

Though not required, students are encouraged to obtain typhoid, 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 and Chikungunya. 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 10:00 pm, May 31, 2020, at the Ritz Village Hostel and Hotel in Willemstad, Curaçao. After hours check-in is possible; 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 Ritz Village Hostel, where they will enjoy an outside pool, free Wi-Fi, launderette, kitchenette, access to patio, and an on-premises restaurant where group meals will be hosted. The Ritz is a short walk to supermarkets, restaurants, and other amenities. Students will have their own bed in a shared room (four students per room), equipped with air conditioning, shared bathrooms, free Wi-Fi access, bed linens, and private lockers.

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 and water into the field/lab each work day.

LANGUAGE

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

Papiamento 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--l1

COURSE & FIELD SCHEDULE

The schedule is subject to change due to weather or other unanticipated events. Field and lab days include a 45 minute lunch and two snack breaks.

Assigned readings are subject to minor change to allow for the inclusion of recent published research.

WEEK 1

Curaçao Cultural Landscape Project 2020 Field Season Schedule
Skema pa Trabou di Vèlt Proyekto Paisahe Kultural di Kòrsou 2020

Colour Codes	Lab activities day	Field work day	Lectures, exams, & due dates	Group breakfast	Group dinner	Field trip, group activity, & public outreach	
Week 1	**dia domingu** 31-**Mei**/May-20 Sunday	**dia luna** 01-**Juni**/Jun-20 Monday	**dia mars** 02-**Juni**/Jun-20 Tuesday	**dia rason** 03-**Juni**/Jun-20 Wednesday	**diaweps** 04-**Juni**/Jun-20 Thursday	**diabièrne** 05-**Juni**/Jun-20 Friday	**dia sabra** 06-**Juni**/Jun-20 Saturday
6:00 AM	Arrival: fly into Hato International Airport, Willemstad Curaçao. Check into Ritz Village Hostel by 10:00 pm (or arrange after hours check-in in advance)		Field Work: assemble at 5:45 am for departure at 6:00 am	Field Work: assemble at 5:45 am for departure at 6:00 am	Field Work: assemble at 5:45 am for departure at 6:00 am		Field Work: assemble at 5:45 am for departure at 6:00 am
7:00 AM						Field Trip: Intro to Curacao history; Walking Tour of Historic Willemstad and Kura Hulanda Museum of Slavery (wear good walking shoes)	
8:00 AM		Group Breakfast & Field Start Orientation Meeting 8:00 -10:30 am					
9:00 AM							
10:00 AM							
11:00 AM		Student free time; groceries, banking, etc.	Lunch Break (field)	Lunch Break (field)	Lunch Break (field)		Lunch Break (field)
12:00 PM			Field Work	Field Work	Field Work		Field Work
1:00 PM		Visit NAAM and lab facilities; equipment check and prep. 1:30-4:30 pm					
2:00 PM			Break	Break		Lecture (NAAM): 2:30-4:30 pm	
3:00 PM			Lecture (NAAM): 3:30-5:00 pm	Lecture (NAAM): 3:30-5:00 pm			
4:00 PM							
5:00 PM		Meet & Greet Social 5:00-6:30 pm					
6:00 PM					Group Dinner 6:30-8:00 pm		
7:00 PM							
8:00 PM							

Week 1 Lectures

Jun 01 8:00-10:30 am Breakfast; Orientation meeting; Language and cultural awareness activity

Jun 02 3:30-5:00 pm Topic: Introduction; CCLP research design and project-specific field methods, Curaçao paleoenvironment, and site formation processes
Readings: Dunning et al. 2018; *Environmental Archaeology* (English Heritage) read pp. 8-15 on sampling and Case Study 2, pp. 30-31

Jun 03 5:30-5:00 pm Topic: Archaeology and history of Curaçao; Pre-Columbian history of the Caribbean; Digital tools and techniques
Readings: Kraan et al. 2016; Haviser and Hofman 2015

Jun 05 2:30-4:30 pm Topic: Zooarchaeology 1 – Comparative vertebrate osteology; Identification and Quantification; Kura Hulanda Slavery Museum critical reflection exercise
Readings: LeFebvre & Sharpe 2018; Peres 2010

WEEK 2

Week 2	dia domingu 07-**Juni**/Jun-20 Sunday	dia luna 08-**Juni**/Jun-20 Monday	dia mars 09-**Juni**/Jun-20 Tuesday	dia rason 10-**Juni**/Jun-20 Wednesday	diaweps 11-**Juni**/Jun-20 Thursday	diabièrne 12-**Juni**/Jun-20 Friday	dia sabra 13-**Juni**/Jun-20 Saturday
6:00 AM	Field Work: assemble at 5:45 am for departure at 6:00 am	Student Free Day		Field Work: assemble at 5:45 am for departure at 6:00 am	Field Work: assemble at 5:45 am for departure at 6:00 am		
7:00 AM			Lab - Finds Processing/ Analysis			Lab - Finds Processing/ Analysis	
8:00 AM							Group Breakfast
9:00 AM							
10:00 AM							Field Trip: Hato Caves and Indian Trail Petroglyphs 10:00 am - 1:30 pm
11:00 AM	Lunch Break (field)		Lunch Break (lab)	Lunch Break (field)	Lunch Break (field)	Lunch Break (lab)	
12:00 PM	Field Work		Lab - Finds Processing/ Analysis (break 3:00-3:30 pm)	Field Work	Field Work	Lab - Finds Processing (break 2:00-2:30 pm)	
1:00 PM							
2:00 PM						Lecture (NAAM): 2:30-4:30 pm	
3:00 PM			Lecture (NAAM): 3:30-5:00 pm; field notebooks due		Lecture (NAAM): 3:30-5:00 pm		
4:00 PM							
5:00 PM							
6:00 PM				Group Dinner 6:30-8:00 pm			
7:00 PM							
8:00 PM							

Week 2 Lectures

Jun 09 3:30-5:00 pm Topic: Geoarch/Geophys Survey 1 – Introduction to archaeological geophysics; Fundamental concepts and the geophysical methods
Readings: Erenwein and Hargrave 2009, Chapters 1-2; Kvamme 2003

Jun 09 In lecture **Turn in field notebook**

Jun 11 3:30-5:00 pm Topic: Zooarchaeology 2 – Taphonomy; Skeletal part representation; Recovery & analytic bias
Readings: Broughton & Miller 2016

Jun 12 2:30-4:30 pm 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

WEEK 3

Week 3	dia domingu 14-**Juni**/Jun-20 Sunday	dia luna 15-**Juni**/Jun-20 Monday	dia mars 16-**Juni**/Jun-20 Tuesday	dia rason 17-**Juni**/Jun-20 Wednesday	diaweps 18-**Juni**/Jun-20 Thursday	diabièrne 19-**Juni**/Jun-20 Friday	dia sabra 20-**Juni**/Jun-20 Saturday
6:00 AM	Field Work: assemble at 5:45 am for departure at 6:00 am	Student Free Day	Field Work: assemble at 5:45 am for departure at 6:00 am	Field Work: assemble at 5:45 am for departure at 6:00 am		Field Work: assemble at 5:45 am for departure at 6:00 am	Field Trip: Christoffelpark Nature Area & Savonet Plantation Museum. A protected nature area known for wildlife, historic plantations, hiking, and Mt Christoffel, Curaçao's highest point. (pack lunch, water & snacks)
7:00 AM					Lab - Finds Processing/ Analysis. 7:30 am start		
8:00 AM							
9:00 AM							
10:00 AM							
11:00 AM	Lunch Break (field)		Lunch Break (field)	Lunch Break (field)	Lunch Break (lab)	Lunch Break (field)	
12:00 PM	Field Work		Field Work	Field Work	Lab - Finds Processing	Field Work	
1:00 PM							
2:00 PM							
3:00 PM			Quiz & Lecture (NAAM): 3:00-5:00 pm			Lecture (NAAM): 3:30-5:00 pm	
4:00 PM							
5:00 PM							
6:00 PM						Group Dinner 6:30-8:00 pm	
7:00 PM							
8:00 PM							

Week 3 Lectures

Jun 16 3:00-3:30 pm **Mid-term quiz**

Jun 16 3:30-5:00 pm Topic: Zooarchaeology 3 – Reconstructing foraging; Human behavioural ecology; Historical ecology; Anthropogenic impacts
Readings: Balée 2006; Giovas et al. 2013; Grouard et al. 2019

Jun 19 3:30-5:00 pm Topic: Geoarch/Geophys Survey 3 – What is geoarchaeology? Soils, sediments and stratigraphy, and depositional environments.
Readings: Gladfeller 1977; Butzer 2008; Holiday 2009

WEEK 4

Week 4	dia domingu 21-**Juni**/Jun-20 Sunday	dia luna 22-**Juni**/Jun-20 Monday	dia mars 23-**Juni**/Jun-20 Tuesday	dia rason 24-**Juni**/Jun-20 Wednesday	diaweps 25-**Juni**/Jun-20 Thursday	diabièrne 26-**Juni**/Jun-20 Friday	dia sabra 27-**Juni**/Jun-27 Saturday
6:00 AM	Field Work: assemble at 5:45 am for departure at 6:00 am	Student Free Day	Field Work: assemble at 5:45 am for departure at 6:00 am	Field Work: assemble at 5:45 am for departure at 6:00 am	Field Work: assemble at 5:45 am for departure at 6:00 am		
7:00 AM						Lab - Finds Processing/ Analysis. 7:30 am start	Group Breakfast 7:30 - 8:30 am
8:00 AM							
9:00 AM							NAAM - Open House set up
10:00 AM							
11:00 AM	Lunch Break (field)		Lunch Break (field)	Lunch Break (field)	Lunch Break (field)	Lunch Break (lab)	CCLP-NAAM Open House Event and Archaeology Public Talk (students participate)
12:00 PM	Field Work		Field Work	Field Work	Field Work	Lab - Finds Processing and Open House prep	
1:00 PM							
2:00 PM							
3:00 PM			Lecture (NAAM): 3:30-5:00 pm		Lecture (NAAM): 3:30-5:00 pm		
4:00 PM							
5:00 PM							
6:00 PM							
7:00 PM				Caribbean Film & Popcorn Night (popcorn provided)			
8:00 PM							

Week 4 (Jun 14 -Jun 19) Lectures

Jun 23 3:30-5:00 pm Topic: Post-contact Caribbean and Curaçao; Contemporary challenges in Caribbean heritage resource management
Readings: Keegan and Hofman 2017, Chapter 8

Jun 25 3:30-5:00 pm Topic: Legacy of human impact and current environmental issues in the Caribbean; Applied environmental archaeology
Readings: Bain et al. 2018; Cooke et al. 2017

WEEK 5

Week 5	**dia domingu** 28-**Juni**/Jun-20 Sunday	**dia luna** 29-**Juni**/Jun-20 Monday	**dia mars** 30-**Juni**/Jun-20 Tuesday	**dia rason** 1-**Juli**/Jun-20 Wednesday	**diaweps** 2-**Juli**/Jun-20 Thursday	**diabièrne** 23-**Juli**/Jun-20 Friday
6:00 AM	Field Work: assemble at 5:45 am for departure at 6:00 am	Student Free Day				Last Program Day Students depart for home or additional travel
7:00 AM			Lab - Finds Processing/ Analysis	Lab - Finds Processing/ Analysis	Lab - Archiving, equipment inventory and packing	
8:00 AM						
9:00 AM						
10:00 AM						
11:00 AM	Lunch Break (field)					
12:00 PM	Field Work		Lunch Break (lab)	Lunch Break (lab)	Lunch Break (lab)	
1:00 PM			Lab - Finds Processing/ Analysis	Lab - Archiving, equipment inventory and packing	Lab - Final close out	
2:00 PM						
3:00 PM	Final Lecture & Review 3:30-5:30 pm					
4:00 PM					Students pack and prepare for travel	
5:00 PM						
6:00 PM				Final Exam 6:30-7:30 pm		
7:00 PM					Farewell Group Dinner Celebration	
8:00 PM						

Week 5 (Jun 21 -Jun 27) Lectures

Jun 28 3:30-5:30 pm Topic: Post-excavation synthesis and interpretation; Decolonizing Caribbean Archaeology; Community outreach and ethical engagement - review and reflection exercise
Readings: González-Tennant 2014

Jul 01 6:30-7:30 pm **Final exam**

Jul 02 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
- 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 medication you need and prescription medication 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 repellant 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

REQUIRED READINGS

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

Week 1

Dunning, N.P. Jones, J.G., Duncan, N.A., Pearsall, D.M. and Siegel P.E. 2018. Curaçao. In *Island Historical Ecology: Socionatural Landscapes of the Eastern and Southern Caribbean*, Siegel, P.E. (ed.): 155-181. Berghahn Books.

Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation. 2011. English Heritage (Historic England). Online pdf: https://content.historicengland.org.uk/images-books/publications/environmental-archaeology-2nd/environmental-archaeology-2nd.pdf/ read pp. 8-15 on sampling and Case Study 2, pp. 30–31

Kraan, C., Victorina, A., Fitzpatrick, S.M., Dodrill, T., Gebhardt, M., Gerard, P., Kingrey, H., Minugh, N., Nelson-Harrington, M. and Rempel, M., 2017. New Archaeological Research on Curaçao. *Journal of Island and Coastal Archaeology* 12(1):138-144.

Haviser, J.B. and Hofman, C.L. 2015. A review of archaeological research in the Dutch Caribbean. In *Managing our Past into the Future: Archaeological Heritage Management in the Dutch Caribbean*, Hofman, C.L. and Haviser, J. (eds.):37–70. Leiden: Sidestone Press.

LeFebvre, M.J., Sharpe, A. 2018. Contemporary Challenges in Zooarchaeological Specimen Identification. In *Zooarchaeology in Practice: Case Studies in Methodology and Interpretation in Archaeofaunal Analysis*, Giovas C., LeFebvre, M. (eds), pp. 35–57. Cham: Springer.

Peres, T. M. 2010. Methodological issues in zooarchaeology. In *Integrating Zooarchaeology and Paleoethnobotany*, VanDerwarker, A., Peres, T.M. (eds), pp. 15–36. Springer: New York.

Week 2

Erenwien, E.G., Hargrave, M.L. 2009. *Archaeological geophysics for DoD Field Use: A guide for new and novice users.* Unpublished report prepared for Environmental Security Technology Certification Program, pp 6–41. (Chapters 1-2).

Kvamme, K. L. 2003. Geophysical Surveys as Landscape Archaeology. *American Antiquity* 68(3):435–457.

Broughton, J.M., Miller, S.D. 2016. Chapter 7. In *Zooarchaeology and Field Ecology: A Photographic Atlas* (pp 169–179). University of Utah Press: Salt Lake City.

Erenwien, E.G., Hargrave, M.L. 2009. *Archaeological geophysics for DoD Field Use: A guide for new and novice users.* Unpublished report prepared for Environmental Security Technology Certification Program, pp 42–67. (Chapters 3-4).

Kvamme, K.G. 2006. Data Processing and Presentation. In *Remote Sensing in Archaeology: An Explicitly North American Perspective*, Johnson, J.K. (ed), pp. 235–250. Tuscaloosa: University of Alabama Press. (Chapter 10).

Week 3

Balée W., Erickson C. 2006. Time, complexity, and historical ecology. In *Time and Complexity in Historical Ecology: Studies in the Neotropical Lowlands*, Balée W., Erickson C. (eds), pp. 1–17. New York: Columbia University Press.

Giovas, C. M., Clark, M., Fitzpatrick, S. M., Stone, J. 2013. Intensifying collection and size increase of the tessellated nerite snail (*Nerita tessellata*) at the Coconut Walk site, Nevis, northern Lesser Antilles, AD 890–1440. *Journal of Archaeological Science* 40(11):4024–4038.

Grouard, S., Perdikaris, S., Espindola Rodrigues, N. E., & Quitmyer, I. R. 2019. Size estimation of pre-Columbian Caribbean fish. International Journal of Osteoarchaeology, 29(3):452-468.

Butzer, K. W. 2008. Challenges for a cross-disciplinary geoarchaeology: The intersection between environmental history and geomorphology. *Geomorphology* 101:402–411.

Gladfeller, B.G. 1977. The geomorphologist and archaeology. *Antiquity* 42 (4):519–538.

Holiday, V. T. 2009. Geoarchaeology and the search for the first Americans. C*atena* 78:310–322.

Week 4

Keegan, W.F, Hofman., C.L. 2017. Caribbean encounters. In *The Caribbean before Columbus,* pp. 239–259. New York: Oxford University Press.

Bain, A., Faucher, A. M., Kennedy, L. M., LeBlanc, A. R., Burn, M. J., Boger, R., Perdikaris, S. 2018. Landscape transformation during Ceramic Age and colonial occupations of Barbuda, West Indies. *Environmental Archaeology* 23(1):36–46.

Cooke, S.B., Dávalos, L.M., Mychajliw, A.M., Turvey, S.T. and Upham, N.S. 2017. Anthropogenic extinction dominates Holocene declines of West Indian mammals. *Annual Review of Ecology, Evolution, and Systematics* 48:301-327.

Week 5

Edward González-Tennant. 2014. The “Color” of Heritage: Decolonizing Collaborative Archaeology in the Caribbean. *Journal of African Diaspora Archaeology and Heritage* 3(1):26-50.