Spring 2020
Undergraduate Research Apprenticeship Positions

-AREAS/CONCENTRATIONS FOR RESEARCH-

Archaeology
Environmental Social Science
Evolutionary Anthropology
Sociocultural Anthropology

Students should be certain to review all positions as many opportunities are combined with one or more other concentrations or disciplines.

Highlighted positions can be completed remotely and by online students.
Research project or internship title:
Human-environmental interaction and climate change in ancient Mexico

Academic discipline:
Archaeology
Environmental Social Science

Project description:
This project is focused on the analysis of plant remains from archaeological sites in Mexico. The analysis is done to understand how past groups interacted with the environment to develop subsistence strategies. Research involves the study of samples under microscope, the extraction of pollen from soil samples, as well as the systematic entering of data from published studies in ethnobotany and paleoecology into a relational database. These data will also be integrated with other archaeological datasets, and students will have the opportunity to analyze, digitize, and study other archaeological data (ceramics, lithics, etc.). Opportunities to work on other projects also exist.

Student’s duties:
Microscope analysis and identification of plant material
Databasing secondary data from scientific studies of plant use and climate change
Databasing analyzed archaeological and ecological primary data.

Required qualifications or pre-requisites:
Ideally intro courses in biology, anthropology and archaeology

Project/internship location:
SHESC 110

Hours per week or days and times needed:
At least 4 hours across Mondays to Wednesdays (and falling between 9 and 2). Apprentices must also be able to attend group meeting twice a month.

Project supervisor:
Dr. Chris Morehart

Supervising faculty:
Dr. Chris Morehart

Contact information:
Christopher.Morehart@asu.edu
Research project or internship title:
Article Digital Archive Project

Academic discipline:
Physical Anthropology

Project description:
Digitize printed journal articles to an online database system via scan and citation processes.

Student's duties:
Organize printed physical anthropology articles by subject type, scan and categorize articles to a searchable online database system, and reduce the number of printed article copies to 3 or less.

Required qualifications or pre-requisites:
Familiar with Physical Anthropology subjects, must be detail-oriented, highly organized, trainable on the online digital database Bookends, and works well in a team atmosphere (collaborative, receptive to team suggestions, can communicate ongoing project objectives).

Project/internship location:
Institute of Human Origins, SS103

Hours per week or days and times needed:
6 hours per week. A permanent schedule will be created and adhered to throughout the semester once student and project needs are addressed.

Project supervisor:
Dr. Bill Kimbel, IHO Director

Back up supervisors:
Lindsay Mullen, Program Manager
Julie Russ, Assistant Director

Supervising faculty:
Dr. Bill Kimbel

Contact information:
Aubree Morrissey
Email: Aubree.Gold@asu.edu
Research project or internship title:
Cercopithecid primate dental morphology & dietary ecology

Academic discipline:
Evolutionary Anthropology

Project description:
This project is related to my broader dissertation research on the evolution of cercopithecid primates (African & Asian monkeys) and the processes that allow them to coexist today and in the past. Previously, I developed a model linking tooth shape and form with dietary behaviors in living monkey species. For this Research Apprenticeship, I am interested in gathering dental measurement data from fossil specimens in order to reconstruct the diets of extinct species and examine how they have changed through time.

Student’s duties:
Primary duties include scoring and measuring primate teeth from two-dimensional microphotographs. Additional duties may include labeling photographs, collecting supplemental data from the literature, and managing references. Students will be trained in the use of R statistical software for basic data analysis, and students who are interested in gaining more hands-on research experience will also be given the option to develop and present an independent project using these data.

Required qualifications or pre-requisites:
Students will ideally have taken an introductory-level (e.g. ASM 104) or higher biological anthropology class (esp. ASM 443 or ASM 452), but all interested applicants will be considered.

Project/internship location:
On campus (Tempe: Social Sciences Building)

Hours per week or days and times needed:
Students are asked to work 9 hours a week; exact days and times are flexible and we can discuss options to coordinate around your class and work schedules (including working remotely up to 6h/week).

Project supervisor:
Irene E. Smail

Supervising faculty:
Dr. Kaye E. Reed

Contact information:
iesmail@asu.edu
**Research project or internship title:**
Exploring Kalahari Bushman Social Networks over Time

**Academic discipline:**
Sociocultural Anthropology

**Project description:**
In 1974 Polly Wiessner conducted study of Kalahari bushman social networks tallying all exchange partners in their networks. This gave a picture of how people were connected over a vast area of some 200 by 200 km. At the time Kalahari Bushmen in the sample we reliving largely by hunting and gathering. She made an inventory of all possessions of each person in the sample and recorded how or from whom they got the time and details on the maker or giver. This gave a picture of how goods traveled along networks and wealth inequalities. She repeated the study in 1997 and again in 2018-19 as Bushmen were settling down to a less mobile life in villages and engaging in a mixed economy of hunting and gathering, occasional wage labor, gardening and small stock raising and receiving food from government programs. Life style, subsistence activities and demographic factors changed considerably as did extent and configurations of networks, leading to emergent social inequalities in a previously egalitarian society. The goal of this project is to work up the recent data to understand changes.

**Student’s duties:**
Help with data entry, coding and analysis. There will also be a component of library research on the topic of generosity in hunter-gatherers. The work could lead to an honors thesis.

**Required qualifications or pre-requisites:**
Good typist, knowledge of excel and interest in hunting and gathering societies.

**Project/internship location:**
On Tempe campus.
School of Human Evolution and Social Change.
145 West Hall.

**Hours per week or days and times needed:**
9 hours

**Project supervisor:**
Prof. Polly Wiessner

**Supervising faculty:**
Prof. Polly Wiessner

**Contact information:**
Polly Wiessner
Tel 801-897-4050
Email: Wiessner@soft-link.com
Research project or internship title: Managing Boom-Bust Cycle of Fracking in Appalachia

Academic discipline: Environmental Social Science

Project description: Appalachia has faced economic stress for decades, if not centuries. Beginning around 2010, hydraulic fracturing, otherwise known as fracking, became economically viable due to natural gas prices and technological advances in Ohio, West Virginia, and Pennsylvania. Since that time numerous counties have experienced tremendous fracking activity, but it is unclear how or whether these communities will be able to leverage the fracking boom to create more sustainable futures.

Student’s duties: The student will work with an interdisciplinary team to generate literature reviews, analyze data, and present results for professional and community audiences. The student will assist in interview transcription and coding.

Required qualifications or pre-requisites: None

Project/internship location: SHESC 265 or online

Hours per week or days and times needed: 3-6 hours per week

Project supervisor: Abigail York

Supervising faculty: Abigail York

Contact information: Abigail.York@asu.edu
Research project or internship title:
ARC-NAV: Arctic Robust Communities-Navigating Adaptation to Variability

Academic discipline:
Environmental Social Science

Project description:
The Arctic is warming on average twice as rapidly as the rest of the planet, which is leading to significant changes in sea ice to which local communities must respond. Beringia, a region of the Arctic encompassing US and Russian territory, is expected to experience some of the highest variability in sea ice conditions in the coming century. This project focuses on the question: how do we design better and more flexible governance and infrastructure to adapt to changing Arctic conditions? To answer this question, the team is taking a convergence approach to forecast potential changes in the Arctic sea ice environment and the impacts on social and ecological systems resulting from those changes and identify adaptive strategies to enhance resilience to those impacts. The project fully engages local and Indigenous communities and decision makers in the Arctic throughout the research process to generate information and models about critical hot spots of sea ice change relevant to local communities. This will help build local and regional governance capacity and allow the researchers to model and predict the robustness of communities to forecast changes.

Coproduction of knowledge between local and Indigenous communities and scientists and across US-Russia borders and disciplinary boundaries will be used to address four key research questions: 1) How do people understand and perceive changing sea ice, and how do they adapt to variability in ice conditions? 2) Where are the current critical hot spots of variability in sea ice, and where will they be in the future as the environment and communities change? 3) How will governmental and non-governmental organizations in the region navigate changing sea ice conditions and interact with communities to respond to their changing needs? and 4) What features of the existing, and potential, social-ecological systems are robust/fragile to forecast changes in sea ice? This project will document diverse narratives and critical policy challenges around biogeophysical changes and associated livelihood and economic opportunities/costs between and within communities through grounded ethnography and cultural consensus analysis. Satellite data will be used to highlight “hot spots” of sea ice variability and provide a starting point for community and stakeholders’ discussions of “change”. Interviews with governance actors will identify priorities and responses and generate spatially explicit policy networks. A multi-agent model will link these analyses and be utilized to explore the diversity of issues, projections of change, and fragility or robustness of communities and the infrastructure systems they rely on. Through this research, the project will derive new understandings of community and institutional responses to change, the impacts of spatial and temporal variability within a trend, and robustness-fragility trade-offs that can be applied to other regions as they navigate transitions around the globe in the Anthropocene.

Student’s duties:
The student will work with an interdisciplinary team to generate literature reviews, analyze data, and present results for professional and community audiences.

Required qualifications or pre-requisites:
None
Project/internship location:
SHESC 265 or online

Hours per week or days and times needed:
3-6 hours per week

Project supervisor:
Abigail York

Supervising faculty:
Abigail York

Contact information:
Abigail.York@asu.edu