

# PhD Course GEOARCHAEOLOGY DIGEST

8–9 May 2018

Over the last few decades, geoarchaeology has opened new, exciting avenues for understanding the past. From reconstructing changing climate and people's ways of living to tracing societal development and resilience, geoarchaeological research is capturing dimensions of the past at an unprecedented level of detail. Such an advance is rooted in the wide range of materials and methods to extract and measure past records from soils and sediments at multiple spatial and temporal scales. Soils and sediments provide a resourceful archive on past landscapes, how people used the land, availability and processing of materials and resources (soil, water, vegetation). From these records, we can infer information on past environmental and climatic conditions, subsistence strategies, cultural practices and choices. This research-led course will provide an introduction to geoarchaeology and a forum to discuss and reflect on how studies of the soil archive are transforming approaches to the past.

ECTS credits: 3



## INTRODUCTION AND AIMS

The course will offer research-led teaching on the concepts and methods of geoarchaeology and will focus on two main objectives:

- To develop knowledge on the principles, methods and applications of geoarchaeology;
- To understand the natural and anthropogenic processes of site formation and post-depositional history across different archaeological and environmental contexts.

The course will focus on two themes: 1) *landscape evolution*, 2) *urban past*. The aim is to encourage students from archaeology and related disciplines from the humanities and geosciences to consider and discuss the potential of applying geoarchaeological methods and approaches to their research questions.

## Venue

Moesgård Allé 20, 4230-221  
8270 Højbjerg  
Denmark

Website: <http://urbnet.au.dk>

## REGISTRATION

<http://phdcourses.dk/Course/61378>

## Contacts:

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## CONTENTS

The course will offer three main modules specifically designed to provide conceptual and analytical background to geoarchaeology, and applications to key research areas of contemporary archaeology and related disciplines: landscapes and urban contexts.

### *MODULE 1: GEOARCHAEOLOGY DIGEST – THE BASICS*

The first module will offer an introduction to geoarchaeology and an overview on the principles and methods. What is a soil? What can soils tell us about the past? Module 1 will address these fundamental questions and set the background for discussing specific topics in modules 2 and 3.

### *MODULE 2: LANDSCAPE EVOLUTION*

The second module will illustrate different geoarchaeological approaches to reconstructing past environments and human landscapes. What can soils tell about past climate and environments? How was the landscape in the past? Where people lived and how did they use the land? Lectures will draw on tailored case studies to illustrate how soil records can inform on past climate and land use.

### *MODULE 3: URBAN PAST*

The third module deals with past cities and urban processes. A series of themed lectures will discuss geoarchaeological approaches to urban stratigraphies, and how these relate to investigating urban trajectories, decline and resilience.

## LEARNING OUTCOMES

By the end of the course, the participants should be able to:

- describe key principles and methods of geoarchaeology;
- discuss main themes and techniques of research on landscape evolution and urban trajectories;
- consider and assess the application of geoarchaeological approaches in their own work;
- reflect on, analyse, and critically discuss how geoarchaeological principles and methods affect interpretations of the past.

## FORMAT

The course will offer lectures, exercises and a workshop where active participation will be expected. Each module consists of: 1) an overview on the main topic, followed by lectures discussing specific themes and applications; 2) the second part will engage students and lecturers in group exercises and Q&A sessions related to the lectures. The language of the course is English.

**Case studies:** Each participant is required to submit beforehand:

- a case study of 1-2 pages, which deals with one or more of the subthemes of the course: landscape and urban past. The cases can relate to an own project, previous experiences, or a case inspired by academic literature. These will be reviewed by the course organising team and discussed during the workshops;
- a max 2-page CV;
- a max 1-page covering letter.

**Exercises:** These will consist of group discussions related to the lecture and the case studies.

**Workshop:** On the second day, there will be a workshop where we go back to the cases illustrated by the lectures, the solutions applied, and new questions emerging from those.

### KEYNOTE SPEAKERS

Charles French, *University of Cambridge*

Cristiano Nicosia, *University of Padova*

### LECTURERS

Genevieve Holdridge, *UrbNet, AU*

Søren M. Kristiansen, *Geoscience, AU*

Federica Sulas, *UrbNet, AU*

## PROGRAMME

### Tuesday, 8 May

#### MODULE 1: Geoarchaeology digest – The basics

10:30–11:00 *Registration*

11:00–11:15 *Welcome and introduction to the course*, Søren M. Kristiansen and Federica Sulas

11:15–12:00 **Lecture 1** *What is geoarchaeology, and why it is useful?*, Charles French and Federica Sulas

12:00–13:00 *Lunch break*

#### MODULE 2: Landscape evolution

13:00–13:30 **Keynote Lecture 2:** *Chronicling resilience of alluviated valley systems in Peru and East Africa*, Charles French

13:30–14:00 **Lecture 3** *Soil isotopic archives*, Genevieve Holdridge

14:00–14:30 **Lecture 4** *Integrative geoarchaeology: soils, plants and texts*, Federica Sulas

14:30–15:00 *Coffee break*

15:00–16:15 **Group exercises**

16:15–16:45 **Lecture 5** *From satellites images to excavation views – why we need soil micromorphology*, Søren M. Kristiansen

16:45–17:30 *Q&A and discussion*, chaired by Charles French and Federica Sulas

19:00 Dinner at *Langhoff & Juul – Organic Restaurant*, Guldsmedgade 30, Aarhus C

### Wednesday, 9 May

#### MODULE 3: Urban past

09:00–09:30 *Coffees and buns*

09:30–10:00 **Lecture 6** *Geoarchaeology in Malta*, Charles French

10:00–11:00 **Keynote Lecture 7:** *Urban geoarchaeology*, Cristiano Nicosia

11:00–11:15 *Coffee break*

11:15–11:45 **Lecture 8** *Indoor and outdoor spaces*, Federica Sulas

11:45–12:15 **Lecture 9** *Artefacts, floors and buildings materials*, Federica Sulas

12:15–13:15 *Lunch break*

13:15–15:00 **Group exercises**

15:00–15:15 *Coffee break*

15:15–16:00 **Workshop – Geoarchaeology in action**, chaired by Federica Sulas

16:00–16:30 Visit to Moesgaard Laboratories

16:30–17:00 *Q&A and closing*, chaired by Cristiano Nicosia and Federica Sulas