



**Mend  
The  
Gap**

Smart Integration of Genetics with  
Sciences of the Past in Croatia:  
Minding and Mending the Gap

## **Basic Course on Archaeological Soil Micromorphology FIRST CALL**

The Horizon 2020-TWINN project “MendTheGap” organises a basic practical course on Archaeological Soil Micromorphology for students of Archaeology, Biology and Earth Sciences.

The course will be held at the Department of Geology of the University of Zagreb from 20<sup>th</sup> to 24<sup>th</sup> February 2017.

The scope of the Course is to use a “hands-on” approach to give the participants a basic knowledge of the aims and methods of Archaeological Soil Micromorphology, and how it can be used in geoarchaeology to assess the archaeological site formation processes.

The potential of this technique is extraordinary, but non-specialists may find it problematic to focus what can be determined. Consequently, communication between experts and end-users can be difficult when assessing the scopes of the micromorphological study of a context, or when the results are discussed. A basic knowledge of micromorphology can thus be extremely useful in facilitating the dialogue among scientists of different cultural areas that are collaborating in an archaeological project.

Micromorphology is a technique based on the observation of undisturbed soil and sediment samples at various magnifications under a petrological microscope, with rapid identification of most constituent materials of natural and anthropic origin. It can greatly improve the characterisation of stratigraphy on archaeological sites, answering a wide range of questions regarding palaeoenvironmental and behavioural issues (e.g. climate change, humans-environment interactions, site and landscape use, etc.).

The course is free; participants will be provided with basic course material. Food and/or accommodation are not included.



The course will be held in English.

The course is open to masters and PhD students, as well as to postgraduate students of Archaeology, Biology and Earth Sciences, preferably (but not exclusively) from the Universities of Zagreb (CrEAMA Initiative), Cambridge and Pisa. No special knowledge and skills are required, but strong motivation and a specific interest in prehistoric archaeology and its aspects connected to natural sciences is highly desirable. Field experience in prehistoric archaeology and/or Quaternary geology will also be useful.

Participants are warmly invited to keep in mind that the course will be based on collaboration and sharing of knowledge, as requested by the guidelines of the H2020-TWINN projects. Consequently, participants with different cultural background will be requested to actively interact and help each other.

The maximum number of participants is 10, because the microscopy laboratory of the Department of Earth Sciences is equipped with 10 microscopes. In case of more than 10 applications, the applicants will be selected in order to give an opportunity to students of all levels and on the first arrived/best served criterion. Please send your application form, a motivation letter and a CV with relevant information to prof. Giovanni Boschian ([giovanni.boschian@unipi.it](mailto:giovanni.boschian@unipi.it)) within February 2, 2017. A second circular with detailed information will be sent to the selected applicants, hopefully within February 8.

Participants proficiently following the whole course will be awarded a participation certificate.

Teaching staff: G. Boschian (Pisa University), N. Tomašić (Zagreb University), K. Gerometta (Pula University).

## Provisional programme

### First day

- Registration and welcome to participants.
- Basics of general mineralogy and optical mineralogy.
- Thin sections. Characteristics, preparation, care.
- The petrographic microscope. Principles, structure, operation.
- Practical identification of basic mineral components.

### Second day

- Archaeology, Geoarchaeology and Soil Micromorphology: theoretical aspects; aims and methods; stratigraphy, microstratigraphy, micromorphological observations. Fieldwork: why, where and how to sample for micromorphology.
- Organisation of the soil/sediment components: distribution of the basic components; coarse and fine components; voids; microstructure; fabric and b-fabric.
- Practical work.

### Third day

- Pedofeatures: classification, identification, interpretation.
- Organic components: classification, identification, interpretation.
- Practical work.

### Fourth day

- Pleistocene cave sediments: natural processes, climate effects, anthropic components. Hunters-gatherers cave use.
- Holocene cave sediments: processes, anthropic components. Pastoral caves.
- Practical work on case studies.

### Fifth day

- Open-air settlements: soils and anthropic components.
- Micromorphology and taphonomy in lower Palaeolithic sites.
- Natural processes, human activity (prepared floors, combustion features, buildings, etc.) and reworking in Neolithic to Bronze Age settlements.
- Practical work on case studies.
- Final discussion.
- Final test.

# Basic Course on Archaeological Soil Micromorphology

Department of Geology - Geološki odsjek -- University of Zagreb

20-24 February, 2017

## Application form

**Deadline:**

**February 2, 2017**

**E-mail to:**

Giovanni Boschian

Dipartimento di Biologia - Università di Pisa

E-mail: [giovanni.boschian@unipi.it](mailto:giovanni.boschian@unipi.it)

First name:			
Surname:			
Affiliation:			
Address:			
City:		Country:	
E-mail			
Position:			
Notes:			