### WORKSHOP

# International Application of Archaeological Science

An intensive one-week workshop for early career researchers.

Hosted by the Archaeology Department at the Max Planck Institute for the Science of Human History, Jena, Germany.

## March 13 - 17, 2018



Max-Planck-Institut für Menschheitsgeschichte

Max Planck Institute for the Science of Human History



Max Planck Institute for the Science of Human History



#### INTERNATIONAL APPLICATION OF ARCHAEOLOGICAL SCIENCE

Max Planck Institute for the Science of Human History

**Archaeology Department** 

Jena, Germany

March 13 - 17, 2018

The Department of Archaeology is focused on developing and applying the latest multidisciplinary methodologies in archaeology in order to transform our understanding of the human past. Combining traditional field research with cuttingedge laboratory analyses, it will investigate the ways in which culture, biology and ecology have intersected in the past, across the entire spatial and temporal spectrum of human history. By combining insights from both the humanities and natural sciences, the Department of Archaeology will seek to tell a more holistic story of the emergence, expansion, and diversification of our species and its social forms.

#### **International Application of Archaeological Science**

The Department of Archaeology at the Max Planck Institute for the Science of Human History is offering an intensive, invitation-only, one-week workshop (13th -17th of March 2018) for Early Career Researchers from developing countries. Our scientific staff will provide hands on training and tutorials in a series of archaeological science approaches that have international applicability. These include: quantitative lithics analyses, Geographical Systems approaches, proteomics, ZooMS, Information stable isotope analysis, archaeobotany, archaeozoology, chronological methods and models, and statistical analysis. This course is designed for junior researchers with archaeological experience wishing to implement new methodologies within their home countries and expand the knowledge base within their institutions. Courses will be in English and flights, visas, travel by train or bus to/from Jena, accommodation, and course materials will be provided (any other expenses must be covered by the participant). All software used will be open access enabling attendees to apply learned skills without constraint.



#### Tuesday, March 13

9:00-9:45: Registration and coffee/tea (Library)

- 9:45-10:00: Welcoming Remarks (Room V03) Nicole Boivin, Director of the Archaeology Department
- 10:00-11:00: Methods and discussions in lithic analysis (Room V03)
  Andrea Picin, Affiliated Researcher; Max Planck and Friedrich Schiller Universität
  Steve Goldstein, Postdoctoral Researcher and Field Director
  Oshan Wedage, PhD Researcher
- 11:00-12:00: Methods and discussions in lithic analysis (Room V03)
  Andrea Picin, Affiliated Researcher; Max Planck and Friedrich Schiller Universität
  Steve Goldstein, Postdoctoral Researcher and Field Director
  Oshan Wedage, PhD Researcher

12:00-13:00: Lunch (Library)

- 13:00-14:00: Modern approaches to human osteology (Room V03) *Alicia Ventresca Miller*, Laboratory Researcher in Isotopes and Human Osteology
- 14:00-14:45: Proper sampling methods for scientific analysis (Room V03)Jessie Hendy, Director of the Proteomics LaboratoryPatrick Roberts, Director of the Isotopes Laboratory

14:45-15:00: Break



15:00-16:00: Proper sampling methods for scientific analysis (Room V03) *Jessie Hendy*, Director of the Proteomics Laboratory *Patrick Roberts*, Director of the Isotopes Laboratory

16:00-17:00: Archaeological applications of GIS and computer software (Room V03)
 *Nils Vanwezer*, PhD Researcher
 *Ulrike Thüring*, Researcher and Technician for the Archaeology Laboratory

17:00-18:00: Radiocarbon calibration, sampling, and interpretation (Room V03) *Ricardo Fernandes*, Laboratory Researcher in Isotopes

#### Wednesday, March 14

9:00-9:30: Coffee/tea (Library)

9:30-10:00: Walk to the lab building

10:00-11:00: Laboratory Tours and archaeological applications of stable isotope analysis *Patrick Roberts*, Director of the Isotopes Laboratory *Jana Zech*, Laboratories Manager

11:00-11:30: Archaeological applications of stable isotope analysis
 *Patrick Roberts*, Director of the Isotopes Laboratory
 *Jana Zech*, Laboratories Manager

11:30-12:00: Walk back to the institute Ayushi Nayak, PhD Researcher



#### 12:00-13:00: Lunch

- 13:00-14:00: Lecture of stable isotope studies (Room V03)*Patrick Roberts*, Director of the Isotopes Laboratory*Jana Zech*, Laboratories Manager
- 14:00-15:00: Lecture of stable isotope studies (Room V03) *Patrick Roberts*, Director of the Isotopes Laboratory *Jana Zech*, Laboratories Manager

15:00-15:30: Break

15:30-17:00: Departmental lecture (Room V14)"The Evolution of *Homo sapiens*: Asian perspectives"*Maria Martinon-Torres*, Distinguished Lecturer

17:00-18:00: Analyses of Ceramic Glazes *Yimin Yang*, Visiting Researcher, Chinese Academy of Sciences (Room V03)

18:30-20:00: Dinner (Location to be announced)

#### Thursday, March 15

9:00-10:00: Coffee/tea (Library)

Morning chat with Maria Martinon-Torres, Distinguished Lecturer

10:00-11:00: Modern approaches in zooarchaeology (Room V14) *William Taylor*, Postdoctoral Researcher and Field Director



11:00-12:00: Modern approaches in Zooarchaeology (Room V14) *William Taylor*, Postdoctoral Researcher and Field Director

12:00-13:00: Lunch

- 13:00-14:00: Applications and interpretations of ZooMS analysis (Room V14) Samantha Brown, PhD Researcher
- 14:00-14:40: Applications and interpretations of ZooMS analysis (Room V14) Samantha Brown, PhD Researcher

15:00-16:00: Cross-Departmental Lecture Series (Room V14)

- 16:15-17:00: Analysis and interpretations of ancient proteomics (Room V14)Jessie Hendy, Director of the Proteomics Laboratory
- 17:00-18:00: Analysis and interpretations of ancient proteomics (Room V14) Jessie Hendy, Director of the Proteomics Laboratory

#### Friday, March 16

9:30-10:00: Coffee/tea (Library)

10:00-11:00: Sampling and processing of macrobotanical remains (Room V03) *Robert Spengler*, Director of the Archaeobotany Laboratory

11:00-11:30: Sampling and processing of macrobotanical remains (Room V03)



Robert Spengler, Director of the Archaeobotany Laboratory 11:30-12:00: Flotation demonstration (Room TBA) Robert Spengler, Director of the Archaeobotany Laboratory

12:00-13:00: Lunch

13:00-13:10: Group photo

13:10-13:40: Microbotanical methods, sampling and discussion *Alison Crowther*, Archaeobotany Director Max Planck and Queensland in Australia

13:40-14:00: Phytoliths, starch grains, and pollen *Alison Crowther*, Archaeobotany Director Max Planck and Queensland in Australia

14:00-14:30: Walk to the labs building

14:30-15:00: Microscope demonstration and application *Alison Crowther*, Archaeobotany Director Max Planck and Queensland in Australia

15:00-16:00: Microscope demonstration and application *Alison Crowther*, Archaeobotany Director Max Planck and Queensland in Australia

16:00-17:00: Discussion of isotope results *Patrick Roberts*, Director of the Isotopes Laboratory



#### Saturday, March 17

9:00-10:00: Train to Weimar, Germany

10:30-11:00: Weimar Museum Tour *Tim Schuler*, Museum Director

11:00-13:30: Walk around the museum

13:30-14:30: Lunch (Location to be announced)

14:30-16:00 Walk around Weimar

16:00: Return to Jena, Germany



#### Contacts for comments or queries:

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