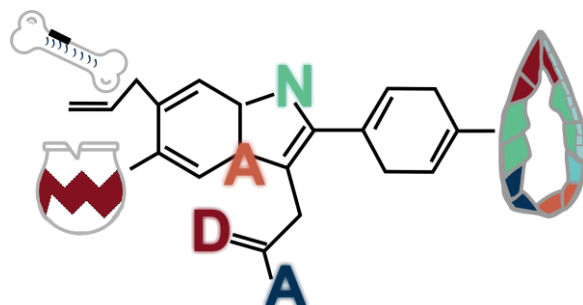




The Organizing Committee kindly invites you to participate in this First Conference, “New Approaches in Digital Archaeology”, which will be held online in Zoom on **December 2021**. Organized by the Institute of Archaeology and Ethnography of the Siberian Branch of the Russian Academy of Sciences, The French National Centre for Scientific Research, the University of Warsaw, and the Hebrew University of Jerusalem, the Conference will provide an opportunity to share new data and methods in digital archaeology and biological anthropology.

The purpose of this Conference is to address all aspects of human cultural and biological evolution through the application of novel approaches in archaeology and human paleontology. From Europe to Asia, the broad geographic scope of the presentations sets the stage for promising comparisons between the use of complex methodology in various archaeological contexts. Digital methods have become a commonly-used approach in archaeology, the analysis of material culture and anthropological remains. The goal of this conference is to highlight the implementation of specific digital methods in all stages of archaeological research and in different fields. The presentations are intended to cover methodological issues such as CT- and 3D-scanning, geometric morphometry, and a wide range of statistical methods, GIS and other innovative approaches in archaeology.



Sessions

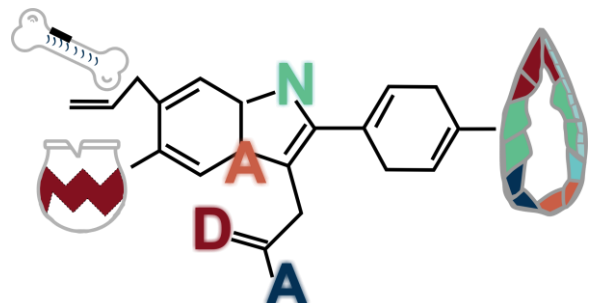
Keynote session. INTRODUCTION TO DIGITAL ARCHAEOLOGY

Session 1

3D- AND CT-SCANNING AND STATISTICAL METHODS IN BIOLOGICAL ANTHROPOLOGY AND PALEONTOLOGY

The recent development of 3D imagery allows access to critical microscopic information at the surface and within internal structures of mineral and biological samples. The internal structure of the bones and teeth holds a significant amount of valuable paleobiological information for assessing taxonomy, phylogenetic relationships, functional, dietary and ecological adaptive strategies, and reconstructing overall evolutionary history. Non-invasive and non-destructive technologies based on X-ray microfocus (X- μ CT) microtomography are increasingly used to investigate the endostructural properties of fossil mineralized tissues. Confocal microscopy is a relatively new technique for the study of dental and archaeological artefacts microwear allowing quantification of the surface modifications previously unreachable with classic microscopic technics. Applied to the analysis of teeth surface, 3D rugosimetric analysis combined to morphometric data provides new insights on morphological adaptations (interplays between morphology, diet, and environmental constraints). Applied to the study of archaeological materials, roughness measurements using confocal microscopy allows for a quantified and reproducible distinction between various states of alteration among archaeological material and explore the complex taphonomical and functional histories of the artefacts.

This session will focus on studies implementing these methods to examine biological and archeological remains.



Session 2

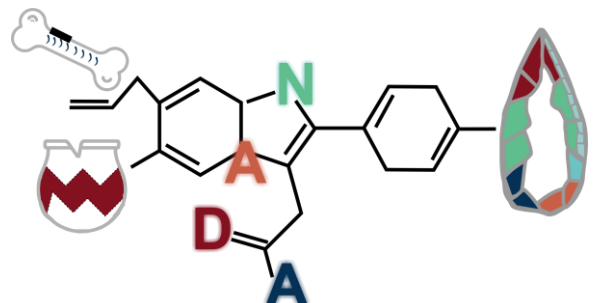
COMPLEX DIGITAL AND COMPUTATIONAL METHODS IN LITHIC ANALYSIS AND ART (INCLUDING 3D GEOMETRIC MORPHOMETRY IN LITHIC AND BONE ARTIFACT STUDIES)

Recently, three-dimensional modeling of lithic and bone artifacts has become a widely accepted approach because, in addition to high-quality images, it makes obtaining new data possible. Such new data are not available by means of other methods, and improved research allows it to be verified, giving us all the opportunity to introduce new techniques and improve the scientific quality of our research. This session will discuss novel approaches to the study of stone and bone artifacts and portable art objects. Special attention will be paid to 3D geometric-morphometric analysis, including its advantages and disadvantages.

Session 3

INNOVATIVE VS. TRADITIONAL APPROACHES: WHY DO WE NEED BOTH TYPES OF METHODS?

The tremendous potential of new methods gives archaeologists new keys to unlock our understanding of past human beings. Current methods in the archaeological sciences often harness the power of 3D modelling, machine learning, and many types of analyses since they are able to detect new patterns, invisible to the human eye and standard or traditional approaches. The inclusion of evermore sophisticated techniques has provided archaeologists with a useful toolkit able to tackle different kinds of problems and research questions. But, is it possible to employ new methods separate from the classical tools of traditional archaeology? What can traditional archaeology still provide the researcher?



In this session, we will discuss new approaches in conjunction with traditional methods. We look forward to receiving presentations about projects and approaches combining traditional analyses and digital methods. We wish to discuss practical experiences and find the golden mean in using both research approaches, their combination and the importance of understanding when it is permissible to use them.

POSTER SESSION

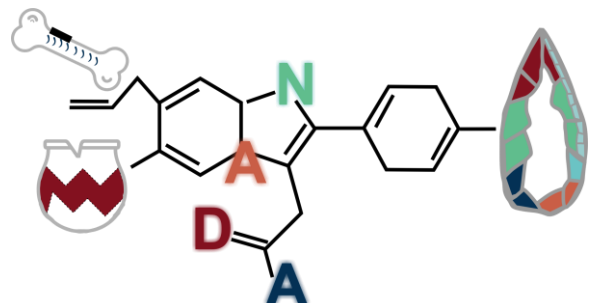
The NADA Committee invite speakers to submit abstracts for poster presentations on any subject related to **Digital Archaeology**. The poster session is scheduled for all days of conference in Telegram's private channel. Authors are expected to be able to answer questions from the attendees in chat during the conference.

Call for abstracts

We kindly ask you to propose the **English abstracts** of presentations until November 15, 2021. The abstract should be prepared with Microsoft Word. There is a limit up to 150 words for the abstract including the title, name(s) of the author(s), affiliation and email address. Family name should appear in capital letters. Please, use the form below:

Title: Xxxxxx

Name(s) of author(s):



First name GIVEN NAME¹, First name GIVEN NAME², and First name
GIVEN NAME²

Affiliation(s):

¹ Department of Archaeology, University of AAAA

² Institute of Human Evolution, National Museum

E-mail (corresponding author):

Abstract: text in 150 words, prepared with Microsoft Word

We look forward to receiving your replies and to seeing you in Zoom!

**Please direct all conference-related communication to
archeomongolia@gmail.com (Arina KHATSENOVICH)**

