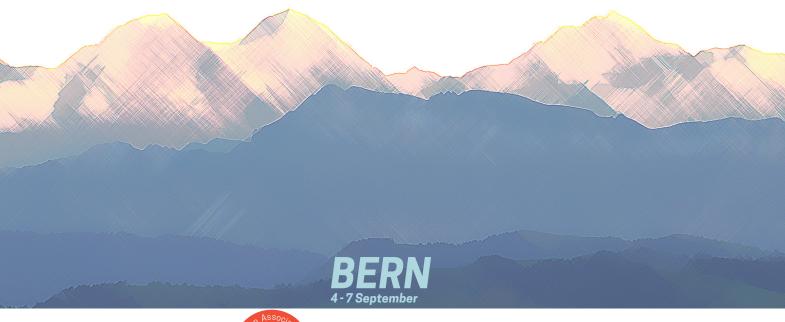


Beyond paradigms





Furthermore, the SACA strives to promote networking among scholars working in the field of Mediterranean archaeology. Once a year a roundtable on a specific topic is organised to which researchers are invited to present and discuss the results of their studies. The SACA also maintains close ties to professionals from other archaeological and historical sub-disciplines through its memberships in the associations of the National Information Centre on Cultural Heritage (NIKE) and the Swiss Archaeology Network (NAS).

Finally, the organisation also acts as an information platform through it's website (www.saka-asac.ch) and yearly journal (Bulletin SAKA-ASAC) and has (co-)published scientific publications.

The aim of this paper is to present the history and the current status of the organisation to the international scientific community and to discuss some of its future goals.

#### 6 ARCHAEOLOGICAL PROFESSIONALISM AND ARCHAEOLOGICAL ASSOCIATIONS

Author(s): Belford, Paul (Clwyd-Powys Archaeological Trust)

Presentation Format: Oral

The abstract for this session rightly notes that the professionalism of archaeologists and associations of archaeological professionals are two different things. This paper examines the relationship between the two with specific reference to the UK. The development of the 'polluter pays' model in the UK saw the emergence of a large 'private-sector archaeology' which ultimately developed the Chartered Institute for Archaeologists (CIfA) as a means of self-regulation. However this process created a distinction between 'professional' and 'non-professional' archaeologists, and to some extent tension and confusion too. Ironically CIfA's early 1980s origins lay in an initiative by the Council for British Archaeology (CBA), which had itself been established to provide a forum and focus for a range of largely non-professional archaeological associations. Whilst some of these associations were national (or even international) in scope with a wide membership base of professional, academic and amateur archaeologists, many were much more regional or even local in focus and dominated by non-professionals. This paper looks at the ways in which the myriad of archaeological associations relate both to each other and to the professional association. Some ways in which fruitful partnerships could be delivered in the future are explored.

## 97 MOTHERHOOD IN (PRE-)HISTORY FROM A COMBINED BIO-ARCHAEOLOGICAL AND SOCIAL PERS-PECTIVE

Theme: Interpreting the archaeological record: artefacts, humans and landscapes

**Organisers:** Rebay-Salisbury, Katharina (Austrian Academ of Sciences) - Stefanović, Sofija (Biosense Institute, University of Novi Sad/Faculty of Philosopy, University of Belgrade)

Format: Regular session

In recent years, an 'archaeology of motherhood' has started to emerge, which investigates one of the most profound changes of identity women experience: the transition to motherhood. Motherhood includes a range of cultural choices and practices in addition to the biological framework of sexual reproduction, which are subject to change.

For prehistoric Europe, little is known at what age women became mothers, how many children they had, how siblings were spaced and how families were composed. It is equally unclear if women were selected for reproduction, how the social status of women changed as they became mothers, and which rites and rituals were involved that might leave traces in the archaeological record. Objects related to pregnancy, birth and early childrearing are only slowly being identified, as interest in researching motherhood intensifies.

How motherhood was conceptualized and embedded in societies, however, has profound consequences on demography, population structure and even DNA composition. This session invites papers that advance our understanding of motherhood from theoretical, osteological, bio-archaeological, demographic, isotopic and genetic perspectives. The aim is to discuss motherhood in the light of the latest results emerging from aDNA and isotope studies across Europe and to firmly establish motherhood as a research topic in archaeology.

## ABSTRACTS

# 1 CAN WE DETECT PREHISTORIC PREGNANCIES? POTENTIAL OF THE TOOTH CEMENTUM ANALYSIS FOR THE RECONSTRUCTION OF FERTILITY

**Author(s):** Penezic, Kristina (University of Novi Sad, Biosense Institute) - Petrović, Bojan (University of Novi Sad, Faculty of Medicine; University of Novi Sad, Biosense Institute) - Porčić, Marko (University of Belgrade, Faculty of Philosophy, Department of Archaeology; University of Novi Sad, Biosense Institute) - Ristović, Filip (University of Belgrade, Faculty of Philosophy, Department of Archaeology) - Stefanović, Sofija (University of Novi Sad, Biosense Institute; University of Belgrade, Faculty of Philosophy, Department of Archaeology)

Presentation Format: Oral

The importance of fertility in paleodemography cannot be overemphasized as it is the major determinant of preindustrial population dynamics and the crucial concept in anthropological and archaeological theory of demographic transitions. The possibility that a permanent record of the number pregnancies and age of mother at which the pregnancies occurred is preserved at the

microscopic level in the tooth cementum may be of fundamental importance for further studies of fertility and motherhood. Certain life-events have been shown to interfere with the deposition of tooth cementum, among which pregnancy was mentioned. This important fact was however only referred to in a limited number of publications. In order to gain more specific knowledge of theses occurrences we conducted a small-scale clinical study focusing on the detection of pregnancies recorded in the tooth cementum. Results obtained from this study are used for further interpretation of TCA (Tooth cementum annulation) analysis applied on a sample of teeth from archaeological contexts. All samples derived from archaeological sites are from individuals dating either to the Mesolithic or Neolithic period in the Central Balkan area. The aim of this study is to evaluate results from the clinical study and compare it to the results obtained from the archaeological sample. In this manner, we hope to tackle the complex question of pregnancies, fertility rates, and paleodemography at the advent of the Neolithic period.

# 2 HUMAN OSSICLES, A POSSIBLE BIOMARKER FOR THE DIET AND PHYSIOLOGY OF THE MOTHER DURING PREGNANCY

**Author(s):** Leskovar, Tamara (Department of Archaeology, Faculty of Arts, University of Ljubljana) - Beaumont, Julia (School of Archaeological and Forensic Sciences, University of Bradford) - Lisić, Nidia (Museum of London Archaeology) - McGalliard, Suzanne (MOLA Headland Infrastructure)

#### Presentation Format: Oral

 $\delta$ 13C and  $\delta$ 15N of collagen from teeth and bone are used to study human nutrition and health. As bones are constantly remodelling throughout life, isotopic values of bone collagen represent an average of several years. In contrast, human teeth do not remodel, and their primary dentine contains only the isotopic data from the time of formation. Novel techniques using micro-sampling of dentine have allowed better temporal resolution and the examination of tissue formed in utero as a proxy for maternal diet and physiology.

Contrary to all other bones, human auditory ossicles also do not remodel. As they develop in utero and finish formation in the first two years of life, their collagen should represent isotopic values of these two relatively short periods. By comparing  $\delta 13C$  and  $\delta 15N$  data from ossicles and incremental dentine, we investigated how two developmental periods of the ossicles, in-utero and first two years of life, reflect in collagen obtained from the ossicles.

Ossicle and tooth samples of 12 individuals aged  $0.5 \pm 0.4$  years to  $13 \pm 1$  years from the 19th century St. Peter's burial ground in Blackburn were collected and subjected to the isotopic analyses of carbon and nitrogen. The results showed a significant and systematic offset between ossicles and dentine formed at the approximately same time. Based on the comparisons with the incremental dentine and offset pattern, it seems that the second phase of the ossicle development does not influence the isotopic values of collagen significantly. It thus suggests that the data from the ossicles reflect the in-utero period and could serve as a biomarker for the diet and physiology of the mother during the first two trimesters of pregnancy.

# 3 BONE SPOONS FOR PREHISTORIC BABIES: DETECTION OF PRIMARY TEETH MARKS ON THE NEOLITHIC ARTEFACTS

**Author(s):** Stefanovic, Sofija (Biosense Institute, University of Novi Sad; Department of Archaeology, Laboratory for Bioarchaeology, University of Belgrade) - Petrovic, Bojan (Medical Faculty, University of Novi Sad; Biosense Institute, University of Novi Sad) - Porcic, Marko (Department of Archaeology, Laboratory for Bioarchaeology, University of Belgrade; Biosense Institute, University of Novi Sad) - Pendic, Jugoslav - Penezic, Kristina (Biosense Institute, University of Novi Sad)

#### Presentation Format: Oral

Around 8000 years ago, throughout the Neolithic world a new type of artefact appeared, small spoons masterly made from cattle bone, usually interpreted as tools, due to their intensive traces of use. Contrary to those interpretations, the small dimensions of spoons and presence of intensive traces of use led us to the assumption that they were used for feeding babies. In order to test this assumption, we compared 2230 marks on spoons from the Neolithic site of Grad-Starčevo in Serbia (5800–5450 cal BC) with 3151 primary teeth marks produced experimentally on fresh cattle bone. This study has shown that marks on spoons were made by primary teeth, which proves their usage in feeding babies. Our interpretation of the bone spoons' function, jointly with their wide distribution, could suggest that new kinds of gruel were also an important part of the 'Neolithic package'. The novelties in baby-feeding practices, indicated by spoons, could have had an important effect on the evolution of human fertility through shortening the length of the breastfeeding period.

### 4 MOTHERHOOD AND MARGINALITY IN BRONZE AND IRON AGE CENTRAL EUROPE AND ITALY

Author(s): Rebay-Salisbury, Katharina - Pany-Kucera, Doris - Perego, Elisa (OREA, Austrian Academy of Sciences)

Presentation Format: Oral

In this paper, we explore the intersection between motherhood as a biological and social process, and social categorisation, including practices leading to marginalisation and social exclusion.

The first part presents our approach of contextualizing possible skeletal markers of pregnancy and parturition with health status, degenerative changes and traces of occupational stress. Examples from Bronze and Iron Age central Europe and Italy illustrate a discussion of potential bio-archaeological markers of marginality (e.g. malnutrition, trauma).

The second part concerns the interpretation of bio-archaeological evidence of motherhood and marginality in their social context. In particular, we explore how women who were marginalised in their societies might have experienced pregnancy, childbirth