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Births, mothers and babies:
a bioarchaeological perspective

Session:

Births, mothers and babies:

a bioarchaeological perspective

(session: T10C)

Date: 30. August 2016.

Time: 9:00-11:00



9:00-9:10 Introductory words by session organizers (Sofija Stefanović, Gwenaëlle Goude)

9:10-9:25 Takumi Tsutaya, Hiroshi Miyamoto, Akiyoshi Inahara, Tomohito Nagaoka, Mikiko Abe, Minoru Yoneda. Reconstruction of breastfeeding and weaning practices using stable isotope analysis of tooth

9:25-9:40 Kirsi Lorentz. Birthing and childcare in ancient Cyprus: Bioarchaeology and beyond

9:40-9:55 Tracy Betsinger, Michaelyn Harle, Maria Ostendorf Smith. Perinates in the Past: Insights of Fetal Identity from Mortuary Analysis

9:55-10:10 Caroline Partiot, Linda Gilaizeau, Emilie Portat, Mark Guillon. Crossing funerary, historical and biology archaeological data in the study of fetus, stillborn and babies

10:10-10:25 Kristina Penezić, Sofija Stefanović, Ursula Wittwer-Backofen, Petra Urban, Jelena Jovanović. Female stress during the Neolithic Demographic Transition in the Balkans: evidences from tooth cementum

10:25-10:40 Jelena Jovanović, Camille de Becdelievre, Gwenaëlle Goude, Estelle Herrscher, Sofija Stefanović. Children feeding practices and growth patterns during Mesolithic-Neolithic transition in the Danube Gorges

10:40-11:00 Discussion and concluding remarks

Session

Births, mothers and babies: a bioarchaeological perspective

Organisers: **Sofija Stefanović** (Laboratory for Bioarchaeology, University of Belgrade, Serbia) and **Gwenaëlle Goude** (Aix-Marseille University, CNRS, UMR 7269, LAMPEA, France)

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Abstract: Although births, mothers and babies present key pillars for human survival, their role has not been adequately studied, either by physical anthropology or archaeology. The attitudes of past communities towards pregnancy, birth and neonatal care must have played a key role in the success of the birthing process, but these have also not been satisfactorily addressed in archaeological writing. The aim of this session is to provide an overview of bioarchaeological research into the place of births, mothers and babies in ancient populations across time and space. Contributions will use multidisciplinary approaches and improved methodologies to address the roles and circumstances of birthing in human evolution. New methods for studying pregnancy, breastfeeding-weaning and social status of women and children, eg., through studies of nutrition, health, and growth, will be showcased.

Takumi Tsutaya (Kyoto University, Japan), **Hiroshi Miyamoto** (*Akashi City Board of Education, Japan), **Akiyoshi Inahara ***, **Tomohito Nagaoka** (St. Marianna University School of Medicine, Japan), **Mikiko Abe** (Osaka City University, Japan), **Minoru Yoneda** (The University of Tokyo, Japan)

Title: **Reconstruction of breastfeeding and weaning practices using stable isotope analysis of tooth**

Abstract: Tooth retains dietary signals during infancy and childhood because of its incremental growth, and one can extract these signals by using stable isotope analysis. Stable nitrogen/oxygen and carbon isotopes are the proxy of breastmilk and weaning food consumption, respectively. Combination of these information would reveal the weaning age and the contents of weaning foods in the past. In this paper, we will present results of stable isotopic analysis of teeth from an individual skeleton, a grandmother of a chief retainer of the Akashi clan in Edo period (AD 1603-1867) to reconstruct breastfeeding and weaning practices in her infancy and childhood as a case study.

Kirsi Lorentz (Science and Technology in Archaeology, Research Center (STARC), The Cyprus Institute, Cyprus)

Title: *Birth and childcare in ancient Cyprus: Bioarchaeology and beyond*

Abstract: While (bio)archaeological evidence pertaining to birthing and childcare in ancient Cyprus abounds, no systematic studies exist. This paper uses multidisciplinary approaches to human skeletal data, depictions, and mortuary evidence in order to explore pregnancy, birthing, breastfeeding, weaning and the social position of mothers and children in ancient Cyprus, drawing on a wide variety of available evidence: from the high status female burial with a perinate infant (birthing related death?) at Kition c. 400 BCE, to mortuary treatment of infants and children during prehistory and beyond, as well as the explicit coroplastic art and picrolite figurines depicting pregnancy, birthing, and breastfeeding.

Tracy Betsinger (UNY Oneonta, United States of America), **Michaelyn Harle** (Tennessee Valley Authority, United States of America), **Maria Ostendorf Smith** (Illinois State University, United States of America)

Title: *Perinates in the Past: Insights of Fetal Identity from Mortuary Analysis*

Abstract: The omission of perinates (6 months in utero–1 month postnatal) from bioarchaeological analyses results in limited understanding of these youngest individuals. Mortuary analysis can yield important information regarding social identity. A comparison of perinatal funerary objects, body position, and burial location with that of post-neonates (1 month–1 year) and young children (1–4 years) enables us to determine whether perinates were treated synonymously with these older children, reflecting similar identity in the community. A temporal and geographic comparison of more than 500 prehistoric subadult remains from East Tennessee are assessed to determine patterns within and between groups and temporal periods.

Caroline Partiot (Bordeaux University - UMR CNRS 5199, PACEA Bordeaux, France), **Linda Gilaizeau** (World Heritage Center Division, Shizuoka Prefectural Government, Japan), **Emilie Portat** (City of Chartres & Paris I University, - UMR CNRS 7041 Panthéon-Sorbonne Paris, France), **Mark Guillon** (Inrap & Bordeaux University - UMR CNRS 5199 PACEA Bordeaux, France)

Title: *Crossing funerary, historical and biology archaeological data in the study of fetus, stillborn and babies*

Abstract: The last 10 years saw increasing dialogue between archaeologists, historians and physical anthropologists at babies bedside, especially from funerary context. This paper would like to lead a reflection about how far we can go in comparing results from excavation and field on one hand and biological study of human babies on the other hand with historical knowledge in the background. In which conditions are we able to characterize a population through an excavated buried sample of individuals, what further information can we reach in crossing data? In the case of ancient cemeteries, the expectations are on biological results, mortuary practices, space management, which is to say at the end trying to understand social and biological selections. What tools can we expect to obtain gathering data from 3 different researching field and what is their reliability? This paper will deal with methodological question and will take examples in France, Japan and Sudan.

Kristina Penezić (*Laboratory for Bioarchaeology, Faculty of Philosophy, University of Belgrade, Serbia),
Sofija Stefanović *, **Ursula Wittwer-Backofen** (**Institute for Biological Anthropology, Faculty of Medicine,
University of Freiburg, Germany), **Petra Urban**** , **Jelena Jovanović***

Title: Female stress during the Neolithic Demographic Transition in the Balkans: evidences from tooth cementum

Abstract: It is generally accepted that the first fertility increase occurred in the Neolithic, during the process of the so-called Neolithic Demographic Transition. But this hypothesis is not based on biological skeletal evidence of fertility, but rather derived from indirect evidence. In order to provide direct evidences about female fertility ERC BIRTH project investigates "crisis lines" which correspond to stressful life events and are visible in tooth cementum. We compare number of "crisis lines" in Mesolithic and Neolithic females from the Balkans (10000-5000 BC) in order to investigate whether the number of stressful events increased with Neolithic as a possible consequence of increase of fertility.

Jelena Jovanović (*Laboratory for Bioarchaeology, Faculty of Philosophy, University of Belgrade, Serbia),
Camille de Becdelievre*, **Gwenaëlle Goude** (Aix-Marseille University, CNRS, France, UMR 7269, LAMPEA, France), **Estelle Herrscher** (Aix-Marseille University, CNRS, France, UMR 7269, LAMPEA, France), **Sofija Stefanović***

Title: Children feeding practices and growth patterns during Mesolithic-Neolithic transition in the Danube Gorges

Abstract: The Mesolithic-Neolithic transition, major shift in subsistence, has been correlated with a general decline in health status and a global reduction of body proportions. Recent stable isotope analyses performed on Mesolithic and Neolithic individuals from the Danube Gorges (Balkans, 9500-5500 BC) document significant differences in term of children feeding practices. Therefore, we examine here how different feeding practices could have influenced children growth patterns and health status. We reconstruct the evolution of growth patterns and health status per age categories (infant-early childhood-childhood), and interpret the results in the light of our current understanding of breastfeeding and weaning patterns.