INTERNATIONAL CONFERENCE

Child Space

Narratives and New Perspectives on the Bioarchaeology of Children and Their Biosocial Complexity

ABSTRACTS

4–6 June 2025

Budapest, Hungary
HUN-REN RCH Institute of Archaeology

www.childspacebudapest2025.com

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MTA Centre of Excellence
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Foreword

The international conference "Child Space 2025 – Narratives and New Perspectives on the Bioarchaeology of Children and Their Biosocial Complexity" will take place in Budapest, Hungary, 4–6 June 2025. The focus of the meeting is on the smallest social unit, the central element of the family: the child. The aim of the conference is to initiate a dialogue between cross-disciplinary research directions on childhood in the past.

Children are one of the most popular topics of conversation in today's society. Countless textbooks and internet forums provide information on what we can do for their balanced physical and mental development, but with today's knowledge, we can also review our childhoods and improve our self-perception. Intergenerational differences, brought about by changing social and environmental contexts, are visible even at the scale of a human lifetime. We are now more aware of the complex process that defines our role in adulthood, which determines our ability to adapt to the challenges of modern society and the environment.

But how did we come to our current understanding? What was childhood like in the past without today's knowledge?

We can look at childhood from many different angles, which spins like a „marble ball" in space and time. The "Child Space" scientific conference aims to bring this colourful picture to life through the tools of history, archaeology and anthropology. We have recognised that children in the past were not invisible, they were creators of their own space through their existence, just as they are today. Their physical remains testify to the environmental and social factors that influenced their development and caused them to fail to reach adulthood. Beyond our perspective, an understanding of the attitudes of parents in the past and of children's family relationships is essential for understanding and improving modern human relationships.

Childhood research in our region is still in its infancy. Therefore, another important aim of the conference is to formulate new common research directions. In public lectures, the foremost researchers in the field will lead us into the archaeology of childhood. A related round table discussion with representatives of psychology, education and cultural anthropology aims to create a platform where the child of

the past and the child of the present can meet, creating a new perspective not only on childhood but on human nature as a whole.

The three-day conference cover the topic in four main sessions:

1) Rise of Children

2) Children in Society

3) Feeding with Love

4) Child in Space and Time

The themes cover social roles and functions, such as family/community relations, child care, the life cycle and its interruption. On the other hand, from a biological point of view, they explore the research potential of social and environmental changes influencing the most sensitive period of human life.

The conference's public lectures will take us into the archaeology of childhood with some of the best-known researchers on this topic. The lectures will be streamed live and the recordings will be available on the HUN-REN RCH YouTube channel.

In connection with the conference, we are launching a children's art competition entitled *Life in the Past — Past Through Children's Eyes*, open to children from pre-school to 15 years old.

On the opening day of the conference, the drawings of the art competition will be on exhibition and a round table discussion with representatives from psychology, pedagogy and cultural anthropology will look at the history of children across the whole spectrum of past and future.

The organisers of the international scientific conference are the Institute of Archaeology HUN-REN RCH, Institute of Archaeogenomics HUN-REN RCH, Institute of Archaeological Sciences ELTE, Department of Biological Anthropology, Institute of Biology ELTE.

We are looking forward to seeing you in Budapest,
either in person or via our remote option!

The Organising Committee

Child Space
Narratives and New Perspectives
on the Bioarchaeology of Children
and Their Biosocial Complexity

Conference programme

Child Space
Narratives and New Perspectives on the Bioarchaeology of
Children and Their Biosocial Complexity

Budapest, Hungary
4–6 June 2025

https://www.childspacebudapest2025.com/

Location: HUN-REN RCH Institute of Archaeology
Research Centre for Human Sciences of Hungarian Academy of Sciences
Conference hall, ground floor
H-1097 Budapest, 4 Tóth Kálmán Street

Online stream of the conference is available here:
https://www.youtube.com/@hunrenbolcseszettudomany

Day 1 — Wednesday, June 4, 2025

11.00–	Registration
13.00–13.30	*Opening Speech and Introduction to the 'Child Space' Conference*

Session 1 — Rise of Children

13.30–14.00	Rebecca Gowland: *Small Beginnings: Theoretical and Methodological Advances in the Bioarchaeological Analysis of Infants in the Past*
14.00–14.30	Katharina Rebay-Salisbury: *The Archaeology of Childhood: Past, Present and Future*
14.30–15.00	Coffee break
15.00–15.30	Eileen Murphy: *Emotional Responses to Child Loss in Medieval Ireland: Evidence from Multi-Proxy Approaches*

15.30–16.00 Barbara Hausmair: *Death at the Beginning of Life: Historical Responses to Pre- and Perinatal Death and What We Can Learn from Them for Today*

16.00–16.30 Alexandra Anders: *Reflections: Studies on Prehistoric Childhood*

16.30–17.00 Orsolya Mateovics-László et alii: *Biological Signals of "Set-Backs" in Past Societies – Detection of Biosocial Crisis by Skeletal Signs of Early Life Stress in Medieval Rural Populations from Hungary*

17.00–18.00 *Life in the Past — Past Through Children's Eyes*

Children's Drawings Contest — Awards and Exhibition Opening (Gallery, in Hungarian)

18.00–19.30 *Different Cultures – Same Problems: Children's Spaces in a Global and Digital World* — Public Roundtable (Conference Room, in Hungarian)

Day 2 — Thursday, June 5, 2025

9.00– Registration

Session 2 — Children in Society

9.30–9.50 Claudio Cavazzuti: *Infant Burials in Bronze Age Italy and Their Significance for the Reconstruction of Rituals, Social Stratification and Demographic Cycles*

9.50–10.10 Michaela Kosová et alii: *Born Privileged? Children from the Early Bronze Age Cemeteries in Kolín and Mikulovice (Bohemia)*

10.10–10.30 Michal Ernée et alii: *Children of the Early Bronze Age Community in Mikulovice, East Bohemia. Archaeology and Archaeogenetics – First Results*

10.30–10.50 Eszter Melis et alii*: Children on the Edge: The Youngest Members in the Early and Middle Bronze Age Communities of Western Hungary*

10.50–11.20 Coffee break

11.20–11.40 Zsófia Rácz et alii: *Children of the Avars: Insights into Social Organization from Fully Sampled 6th–9th Century Cemeteries in the Tisza Region*

11.40–12.00 Doris Pany-Kucera et alii: *Relations and Demography of Children in Austrian Avar Period Sites: New Research Avenues*

12.00–12.20 Tamás Szeniczey et alii: *A Paleodemographic Approach to Childhood Survivorship in the Avar Period: Insights from the Subadult Burials of Kölked-Feketekapu*

12.20–12.40 Balázs Gyuris et alii: *Unveiling Childhood Through Bioarchaeology in the Avar Period Carpathian Basin: Kinship, Mobility, and Social Insights*

12.40–13.00 István Koncz: *Experiencing Childhood in 6th Century CE – The Good, The Bad and The Interesting*

13.00–13.30 Discussion after the session

13.30–14.30 Fingerfood lunch

Session 3 — Feeding with Love

14.30–14.50 Daria Ložnjak Dizdar: *Caring for Children in Protohistory in the Southern Carpathian Basin*

14.50–15.10 Mario Novak: *Growing Up in the Provinces: Reconstruction of Child Health and Diet on the Outskirts of the Roman Empire*

15.10–15.30 Zrinka Premužić et alii: *Childhood on the Beach: Subadult Burials from the Cemetery of the Dominican Monastery in Bol, Croatia*

15.30–15.50 Željka Bedić: *Reconstructing the Subadult Dietary Habits and Health in the Late Medieval and Early Modern Continental Croatia – State of Research and Future Plans*

15.50–16.20 Coffee break

16.20–16.40 Enikő Somogyvári-Lajtár et alii: *Being a Child in the Neolithic — Stable Isotope Dietary Reconstructions from Two Neolithic Sites in Northeastern Hungary*

16.40–17.00 Nataša Miladinović-Radmilović and Dragana Vulović: *The Appearance of Infantile and Child Scurvy in the Bishopric of Syrmia: The 17th–18th Century Necropolis at the Site of Palanka in Sremska Mitrovica*

17.00–17.20 Paul Klostermann et alii: *Bioarchaeological Approaches to Adolescence in Early Medieval Central Europe*

17.20–17.40 Discussion after the session

17.40–18.20 Poster presentations by flash talks

19.30 Conference dinner for invitees

Day 3 — Friday, June 6, 2025

9.00– Registration

Session 4 — Child in Space and Time

9.30–9.50 Ana Mercedes Herrero-Corral: *Children in Copper Age Iberia: Gender, Kinship, and Social Identity in Funerary Practices*

9.50–10.10 Klaudia Daňová: *Different Ways of Children's Burial in the Nitra Culture (Early Bronze Age)*

10.10–10.30 Kristóf Fülöp et alii: *Children Behind the Objects: Interdisciplinary Examination of Bronze Age Ceramic Objects*

10.30–10.50 Ciprian Crețu: *(Bio)archaeology of Children at the Edge of the Roman Empire. A View from Late Antique Scythia (Southeastern Romania)*

10.50–11.20 Coffee break

11.20–11.40 Sofija Stefanović: *Children of the Past: How Prehistoric Societies Shaped Growing Up*

11.40–12.00 Alessia Nava: *Investigating Childhood and the Mother-Infant Nexus in Past Human Populations Through Dental Mineralized Tissues*

12.00–12.20 Mateusz Jaeger et alii: *Being a Child in the Early Bronze Age Community at Nižná Myšľa: Pilot Results*

12.20–12.40	Ildikó Pap et alii: *Do "Sleeping" Children Talk? – Mummies of Vác, Hungary*
12.40–13.00	Overall discussion, led by session keynote speakers (one of each session)
13.00–13.20	Organisers: *Little Souls — Deep Grief — Closing Thoughts*

End of Conference

Session 1
Rise of Children

Burial of a male child at Franzhausen II, Austria, ca. 2000 BC
(© Federal Monuments Authority Austria; Katharina Rebay-Salisbury)

Small Beginnings: Theoretical and Methodological Advances in the Bioarchaeological Analysis of Infants in the Past

Rebecca Gowland

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For many years infant remains were largely overlooked by archaeologists studying the past. Sites with large numbers of infant burials tended be interpreted either in terms of ritualised deposits, infanticide, or disposal, with very little attempt to consider their wider socio-cultural context or significance. Over the last two decades there has been a growing awareness of the importance of infant remains for understanding past populations. Developments in epidemiology have highlighted the critical significance of fetal and infant wellbeing for life-long disease risk. This has generated a greater emphasis in bioarchaeology on the importance of infancy and the need for a life course approach to health. Furthermore, the interconnectedness of the infant-mother nexus means that the skeletal remains of infants can provide unique information concerning maternity and maternal health. Exciting scientific developments are also enabling us to ask new questions about the past from the analysis of infant remains; for example, incremental dentine collagen stable isotope analysis of deciduous teeth allows us to explore maternal and infant health and stress. In addition, amelogenin peptide analysis provides a robust new method for estimating the sex of infants. This talk will summarise some of the key theoretical and methodological advances in the study of infants in the past, reflecting on both the challenges and potentials, and will suggest future directions.

Take-Home Message

The Archaeology of Childhood: Past, Present and Future

Katharina Rebay-Salisbury

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Childhood, the period of human development from birth to adolescence, is a universal human experience and a time of physical, cognitive, emotional and social growth. At the same time, childhood experiences vary considerably across time and space and are shaped by cultural, social and environmental factors. In past societies, children constituted a much larger demographic group than they do today, and yet, until recent decades, children have tended to be underrepresented in archaeological narratives.

More recently, the archaeology of childhood has made considerable progress. The analysis of material culture, burial practices and iconography, among other things, has led to insights into children's roles in communities, their contributions to economic and domestic activities, their play and learning environments, and the ways in which their lives were commemorated in death. Bioarchaeological studies have shed light on childhood nutrition, health and childcare, as well as violence and abuse.

Peptide-based sexing of children allows us to understand gender differences in the treatment of boys and girls, and the new field of kinship analysis based on ancient DNA reveals the place of children in past societies. By understanding children as active participants in their communities, the archaeology of childhood is contributing new insights into children's socialization and agency within their societies, providing more nuanced narratives of the past. A future concern will be to understand the ways in which children contributed to wider cultural and technological transformations.

Feeding vessels used as Late Bronze and Iron Age baby bottles, Austria. ca. 1200–600 BC(© Katharina Rebay-Salisbury)

Take-Home Message

Emotional Responses to Child Loss in Medieval Ireland: Evidence from Multi-Proxy Approaches

Eileen Murphy

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The remains of some 527 human skeletons were recovered from excavations at the settlement cemetery of Ranelagh, Co. Roscommon, Ireland. The majority of burials dated to between AD 600 and AD 1150 and were Early Medieval in date. Some two-thirds of the individuals were aged less than 18 years when they died. A notable majority of the Ranelagh people were buried in an extended, supine position, with their head to the west, which is the typical position for Christians. However, some individuals were interred in an atypical manner and the paper will focus on non-normative child (< 18 years of age) burials. Using a multi-proxy approach that includes osteoarchaeology, palaeopathology and archaeothanatology, in addition to stable isotopes and ancient DNA analysis, the individuality of such burials will be explored. This approach can create an osteobiography of the deceased and the nature of their short lives as well as how they may have been viewed by the society in which they lived. It can also reveal insights about the emotions invested into a burial by the living; the main actors in the associated funerary rituals and interment. Love and concern for the deceased are evident at one end of the spectrum of feelings, while indifference, fear and hatred can be found at the other. This approach enables us to get a deeper understanding of the diversity of ways in which individuals in a Medieval community could respond when dealing with the death of a child. In some cases, the evidence suggests that a death may have been viewed as a particularly tragic loss or conversely one that was of little importance. An unusual death could elicit an extreme response. By illustrating this diversity of emotional response, these cases serve to remind us of the humanness of our Medieval ancestors.

Artist's reconstruction of the simultaneous double burial of a male younger child with a female older child from the early medieval settlement cemetery at Ranelagh, Co. Roscommon, Ireland (© Libby Mulqueeny, QUB)

Take-Home Message

Death at the Beginning of Life: Historical Responses to Pre- and Perinatal Death and What We Can Learn from Them for Today

Barbara Hausmair

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Studies of historical infant mortality suggest that until the mid-19th century approximately 25% of children died before their first birthday, meaning that confrontation with untimely death was omnipresent in the pre- and early-modern periods. Thanks to 19th- and 20th-centuries revolutions in medicine, child mortality has reached historic lows globally. Nevertheless, pre- and perinatal death, pregnancy loss and self-determined pregnancy termination remain conflicting and tabooed issues, and insecurities about the liminality of untimely deceased children persists also today. Death at the beginning of life poses a particularly critical situation in almost any society, as it provokes fundamental questions about the nature of the world, personhood and identity, and how those who never really lived can be integrated into these worldviews. Crucially, it also raises questions of who has the authority to decide on such matters. Previous ethnographic, historical, and archaeological studies suggest that attitudes toward stillborn children and infants who die soon after birth vary widely across cultures, yet, they almost always include special burial treatment, reflecting such infants' ambiguous social status. As I have argued in my previous research, however, such special burial practices may not merely reflect personal grief of affected families, but can also signify social conflict – especially in contexts where families' perceptions of their deceased children's personhood and their aspirations for "proper" funerary rites clash with normative views or regulations imposed by ruling elites or authorities. This paper examines historical burial norms and practices in Central Europe associated with children who died in utero or shortly after birth through the lens of historical archaeology. It demonstrates how studying responses to pre- and perinatal death in the past can act as a mirror of our own society's struggles with handling pregnancy loss or the death of newborns, maybe even providing guidance for how care of families who experience such loss could be improved in the future.

Collective grave and memorial for stillborn children at Pradl cemetery in Innsbruck (Austria) (© Barbara Hausmair)

Take-Home Message

Reflections: Studies on Prehistoric Childhood

Alexandra Anders

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The title of this lecture, Reflections, alludes to the notion that archaeology often follows broader developments and paradigmatic shifts within the social sciences. New thematic directions – such as household archaeology, gender archaeology, and the archaeology of identity – tend to enter archaeological discourse with a certain temporal delay, reflecting a disciplinary responsiveness to evolving scholarly concerns.

This presentation examines the emergence of children and childhood as topics of inquiry within the Hungarian context, across three academic disciplines. The ethnographic study of childhood in Hungary began in the late 19th century, with the first comprehensive monographs appearing by the mid-20th century. In Hungarian social history, sources concerning the children of the nobility and court aristocracy began to appear in the 1980s, followed by thematic volumes and exhibitions dedicated to the subject.

In contrast, archaeological engagement with childhood emerged much later. Until the past decade, children remained largely invisible within archaeological interpretation, despite the fact that many archaeologists – particularly those working on the early medieval and medieval period – were generally well-versed in the ethnographic literature.

This lecture aims to contribute to a self-reflexive turn in archaeology, encouraging a critical assessment of the field's intellectual development and its intersections with broader scholarly discourses. By tracing the delayed but growing interest in childhood within archaeology, the presentation seeks to illuminate both the internal dynamics of the discipline and its evolving relationship with adjacent fields.

The artistic interpretation of Neolithic life by Margit Koncz, based on information from archaeologist Ottó Trogmayer (Koncz – Czabarka 2006)

Take-Home Message

Biological Signals of "Set-Backs" in Past Societies – Detection of Biosocial Crisis by Skeletal Signs of Early Life Stress in Medieval Rural Populations from Hungary

Orsolya Mateovics-László[1], *Áron Dávid*[2], *György Terei*[3], *and Loránd Olivér Kovács*[4]

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[3] Budapest History Museum, Budapest, Hungary
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A predominant area of bioarchaeological research is the dynamic interaction between past humans and the highly variable ecological and socio-economic environments. Ancient human remains can reveal hidden information about these complex processes, complementing bioarchaeological approaches and helping to understand the effect of the environmental transformations we experience today. These factors affect the various population segments differently, regarding their biosocial needs. Non-adults are exposed to greater risk, due to their greater demands and their immature physiological system. As biological entities, they not only allow the reconstruction of individual life histories but also the exploration of temporal trends of stress events. In our study, the indicative nature of the osteological data of non-adults has also been demonstrated by multi-layered bioarchaeological research in the Late Medieval Period (14th–16th c.) when a certain decline in the quality of life took place in Hungary. A significant shift in the health of infants appeared as numerous differences in mortality and growth patterns and also appeared in the frequency, and distribution of various non-specific stress markers compared to the earlier Arpadian period (12th–14th c.). These results clearly show a significant stress level in the studied Late Medieval populations, it is important to note that in this time frame the biological data can also be linked to well-documented written historical sources. The nature of evidence for disease and food crises in the historical and archaeological record is extremely minimal and variable. With our study, we aim to show how child remains can inform us about these negative trends and emphasise the importance of their study in the context of human response and adaptation to changing environments.

Foetal remains in a female pelvis from the Cuman cemetery of Perkáta-Nyúli dűlő (14th–16th c.), Hungary (Photo taken by Pál Kenéz, former Cultural Heritage Service)

Take-Home Message

Session 2
Children in Society

Child's drawing for the contest "What does archaeology mean to you?" organised by Damjanich János Museum in 2021 (Szegő Gábor Primary School, Szolnok, student from 2nd class)

Infant Burials in Bronze Age Italy and Their Significance for the Reconstruction of Rituals, Social Stratification and Demographic Cycles

Claudio Cavazzuti

Department of History and Cultures, University of Bologna, Bologna, Italy
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The study of child burials provides significant data through which it is possible to investigate rituals and ideology of ancient communities, as well as their demography and social structures. This talk addresses these issues by analysing almost six hundred infant burials from cremation and inhumation necropolises of Italy dated to the various phases of the Bronze Age (c. 2200–950 BCE), using both published and newly generated data. The research reveals a distinctive development in infant funerary treatments and significant diachronic changes. From ritualized inhumations in the Early Bronze Age, which include possible cases of cults and sacrificial practices, we observed a general "inclusive" attitude towards children during the Middle and Recent Bronze Age. Significant variations, nonetheless, exist between the practice of inhumation and cremation. While children under 2 years of age are present among inhumations, they are largely underrepresented among cremations. During the Final Bronze Age, we observed a gradual reintegration of some children into the urnfields, particularly those of high status, which reflects the stabilization of social inequalities and rank inheritance.

Metabolic diseases were systematically examined to verify the change in health conditions, in connection to nutrition. Their drastic decrease at the onset of the Terramare cycle suggests the improvement of living conditions. Around 1200–1150 BCE, approaching the collapse of the Terramare, however, the dramatic increase of infant burials in some contexts, such as Casinalbo, suggests episodes of shortage and epidemics.

Double burial of an adult female and an infant from the Bronze Age cemetery of Scalvinetto (Northern Italy; 1450–1150 BCE) (after Salzani 2020)

Take-Home Message

Born Privileged? Children from the Early Bronze Age Cemeteries in Kolín and Mikulovice (Bohemia)

Michaela Kosová[1], *Lucie Vélová*[2], *and Michal Ernée*[1]

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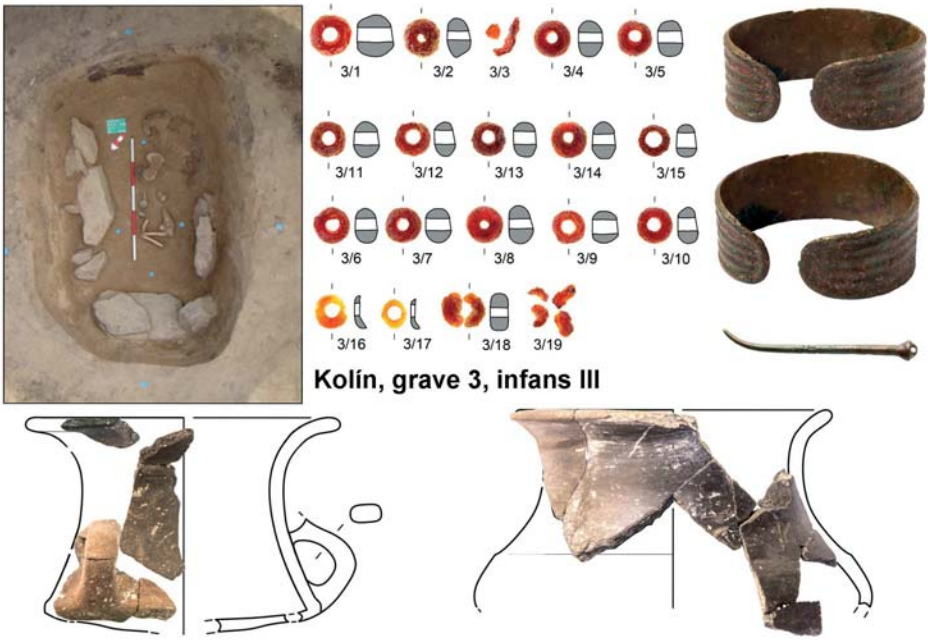
Despite considerable attention given to the research of the Early Bronze Age in Bohemia (Únětice Culture), the topic of children remains marginalized. To date, more than 750 child remains from the Únětice Culture have been documented in this region. Unfortunately, a significant portion of these data originates from older excavations, often lacking anthropological analyses and other contextual information.

This contribution focuses on the findings from recently explored cemeteries in Kolín and Mikulovice, which uncovered a noteworthy number of child remains. In total, the remains of nearly 200 individuals were excavated, one-quarter of whom were children. As is common, the category of fetuses or newborns was not identified; the youngest buried children were 2–3 years old at the time of death.

The sufficient quantity of samples allows for comparisons among child graves on the one hand and between children and adults on the other. It also provides an opportunity to assess funerary practices within the local society, to compare these findings between two contemporary communities, and ultimately to contribute to a better understanding of the social role and status of children within the framework of the Únětice Culture.



Grave 3 from the cemetery in Kolín (Czech Republic), Únětice Culture

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Take-Home Message

Children of the Early Bronze Age Community in Mikulovice, East Bohemia. Archaeology and Archaeogenetics – First Results

Michal Ernée[1], Luka Papac[2], David Cibulka[1], and Wolfgang Haak[2]

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[2] Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany

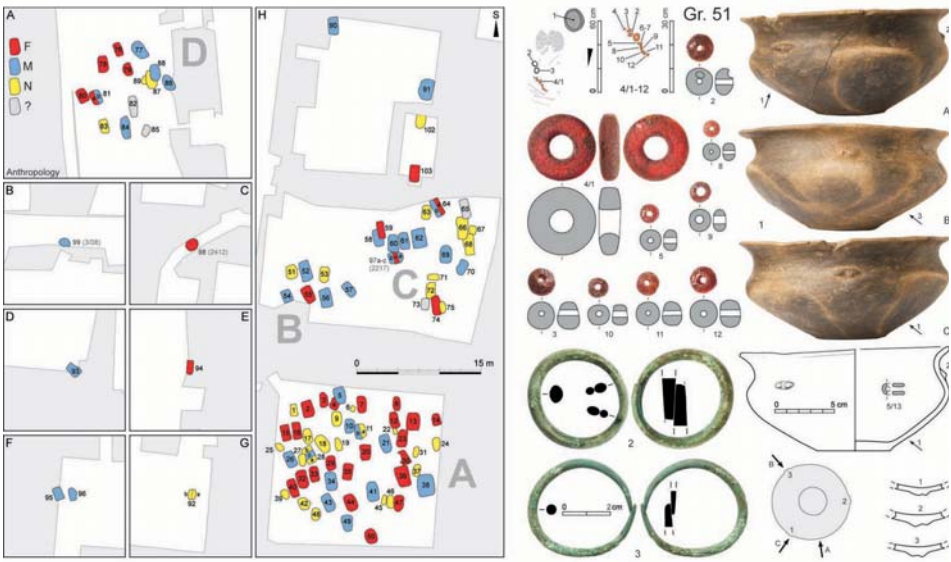
During the rescue excavation in 2006–2012 (J. Frolík, R. Sedláček) thousands of sunken settlement features and about 100 Early Bronze Age (EBA) graves and three settlement pits containing 109 skeletons were documented. The burials mostly belong to the Classic and Post-Classic stages of the Únětice Culture (*ca*. 2000–1750 BCE). The inhumation burials are very rich in so-called "exotics", especially amber artefacts (in 28 graves). The EBA cemetery has been multidisciplinary analysed and published. The complete anthropological, paleopathological, demographical, and osteological analyses are also included as far as the diet and mobility isotopes. During following years all skeletons from Mikulovice were also sampled for aDNA analyses, including all children.

Of the 109 skeletons 30 belong to children <14 years of age (infans II and III, *ca*. 27.5%) and 8 to juveniles <20 years of age (*ca*. 7%). Of 24 children with known biological sex 13 belong to male-children and 11 to female-children.

Similar to the adult individuals, the graves of female-children are in their burial equipment "archaeologically" "richer" than the graves of male-children. We see also the similar differences in the equipment – much more ornaments made of bronze/amber and more bone/stone tools in female than in male graves.

The female-children equipments are archeologically adult from ca 14 years of age, the male-children graves than probably a bit later (from *ca.* 17 to 19 years of age). But by both sexes we can see a few rich equipped burials also by much younger children – e.g. grave No. 51 of 4–5 years old boy containing two bronze armrings and complex ornament composed of amber ring and 13+ amber beads or grave No. 1 of 5–6 years old girl equipped with bronze pin and necklace composed of 19 amber beads.

Thanks to the successful aDNA analyses also many other informations e.g. relations between members of single identified families – father-son/daughter, mother-son/daughter, siblings, half-siblings etc. including their burial equipments – is possible to study.



The Early Bronze Age cemetery in Mikulovice, eastern Bohemia, Czech Republic. Left – position of the male (blue), female (red) and children graves in the cemetery. Right – the richest children grave No. 51, male, 4–5 years. After Ernée–Langová et al. 2020, Fig. 215; Plate 90.

Take-Home Message

Children on the Edge: The Youngest Members in the Early and Middle Bronze Age Communities of Western Hungary

Eszter Melis[1], István Major[2], Tamás Hajdu[3], Anett Gémes[3], Kata Gyenesei[3,4], Fabian Kanz[5], Attila Mrenka[6], Bálint Savanyú[7], Katharina Rebay-Salisbury[8], and Viktória Kiss[1]

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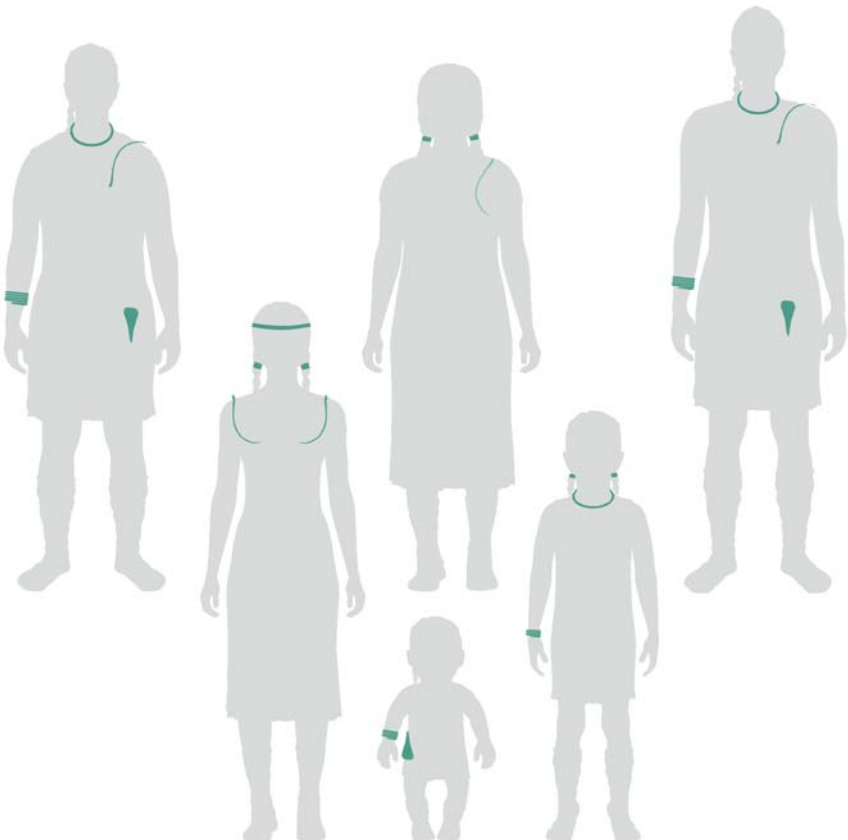
In the study of Bronze Age children, one of the primary sources is unfortunately the burials of those who passed away during their childhood. This paper investigates the social structure of communities that lived in the area of present-day Western Hungary between 2200 and 1600 BC, with a particular focus on the social status of children through a multidisciplinary analysis of burials. During this period, the region served as a cultural borderland between the inhumation funerary traditions of the Central European Únětice and related cultures and the cremation rites of Carpathian Basin groups. Our research focuses on the previously underexplored Gáta–Wieselburg communities, known for their inhumation graves.

In addition to archaeological and anthropological analyses at Hungarian sites, we conducted stable isotope and geochemical studies at two cemeteries in Nagycenk, distinguished by their rich assemblage of status-related grave goods. By examining funerary practices, anthropological data, and peptide-based sex identification, this study seeks to determine the extent and onset of social gender role differentiation within these communities. Another key question is whether the children's grave goods and isotopic data on their diet can reveal emerging patterns of permanent social stratification.

Child Space
Narratives and New Perspectives on the Bioarchaeology of Children and Their Biosocial Complexity



Distribution of the main clothing accessories and weapons among gender and age categories in Western Hungary between 2200–1600 BC (Graphics: HUN-REN Research Centre for the Humanities, Institute of Archaeology, Zsóka Varga)

Take-Home Message

Children of the Avars: Insights into Social Organization from Fully Sampled 6th–9th Century Cemeteries in the Tisza Region

Zsófia Rácz[1], *Tamás Szeniczey*[2], *Luca Traverso*[3], *Balázs Takács*[1], *and Guido Alberto Gnecchi-Ruscone*[4]

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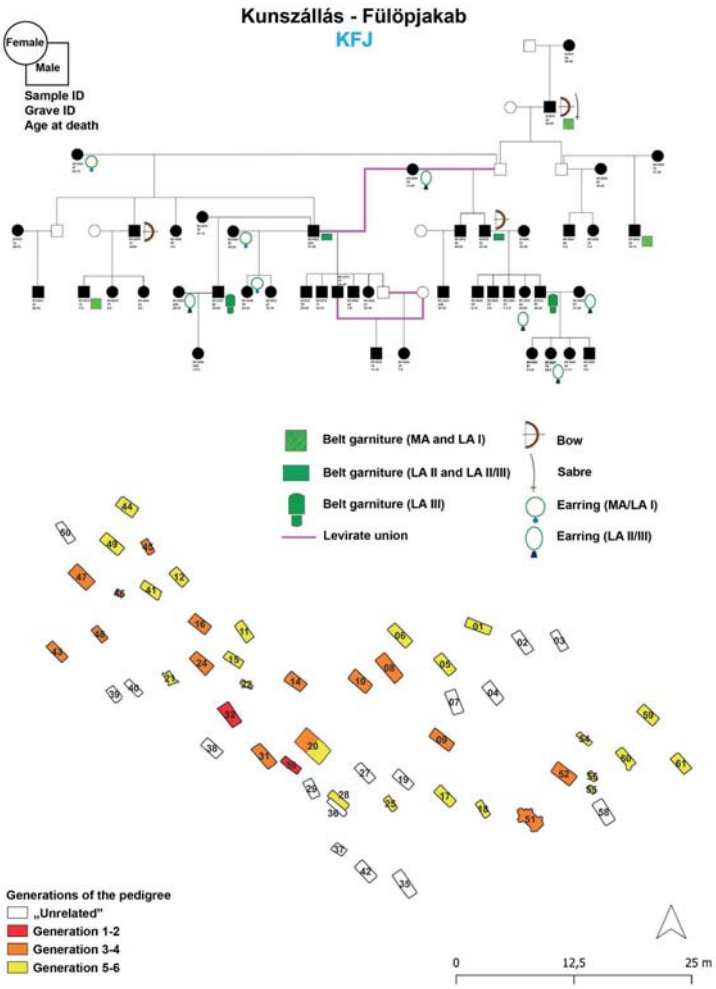
In the HistoGenes project, launched in 2020, we are conducting archaeogenomic analyses of entire burial communities from 400–900 AD. This provides unprecedented insights into the complexity of social organization in the Carpathian Basin throughout the Migration period. Over the past five years, we have discovered that diverse social structures emerged within this timeframe, even across regions belonging to the same historical-archaeological periods. The role of biological kinship in the life of a community, as well as marriage strategies, may vary significantly. As a result, we can conclude that children's roles may also differ from one society to another. One important consequence of the large number of archaeogenetic studies is that we can determine the genetic sex of children. By examining children's funerary representations and spatial positions in cemeteries, we can assign social meaning to biological observations. In my presentation, I will focus on children's living conditions and status during the Avar period, analyzing large pedigrees reconstructed from 6th–9th-century cemeteries.

This project has received funding from the European Research Council (ERC), grant agreement n° 856453 ERC-2019-SyG.



Pedigree and map of the Kunszállás-Fülöpjakab (Hungary) cemetery, 7th–8th century AD (after Gnecchi-Ruscone – Rácz et al. 2024)

Take-Home Message

Relations and Demography of Children in Austrian Avar Period Sites: New Research Avenues

Doris Pany-Kucera[1], *Sabine Eggers*[1], *Paul Klostermann*[1,2], *Bendeguz Tobias*[3], *Zuzana Hofmanová*[4], *Ke Wang*[4,5], *and Margit Berner*[1]

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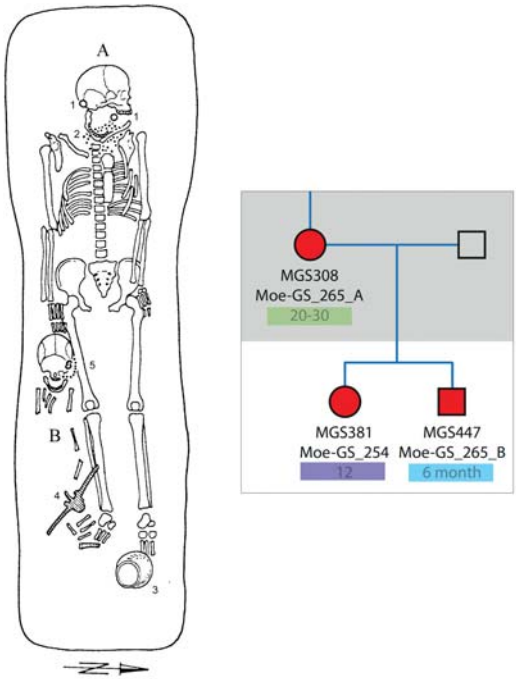
We sampled over 600+ skeletons from the two Austrian sites of Leobersdorf and Mödling An der Goldenen Stiege for ancient DNA. The two large reconstructed pedigrees span six generations and show a mostly patrilinear structure. The synergy of various disciplines allows a far deeper insight into the social life of people in the past, especially of subadults (<18 years). We analysed nearly 200 children, for who sex was revealed by genomics. Surprisingly, the pedigrees uncovered more boys than girls buried in the sites, as well as stable populations only the 4th and 5th generations. There is a higher tendency for boys than girls to be buried in each cemetery, suggesting a distinct social position of males. The 6th generation is mostly represented by subadults, mainly boys, and only a few adults, suggesting site abandonment.

In Leobersdorf, relatives were often buried in close vicinity, but many subadults do not have their mothers buried on site. In those cases, more than 50% are buried closely to a 1st or 2nd degree relative (mostly fathers and brothers). Of the subadults with mothers on site, only ~20% are not buried with or next to their mothers, or another close relative. Thus, these results point to tight "family" bonds, even after death. These new research avenues allow for much more complex and detailed reconstructions of past societies.

This project has received funding from the European Research Council (ERC), grant agreement n° 856453 ERC-2019-SyG.

Child Space
Narratives and New Perspectives on the Bioarchaeology of Children and Their Biosocial Complexity



Grave drawing and excerpt of Mödling pedigree
© Wang – Tobias – Pany-Kucera et al. 2025; Matzner/Leitner

Take-Home Message

A Paleodemographic Approach to Childhood Survivorship in the Avar Period: Insights from the Subadult Burials of Kölked-Feketekapu

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The archaeological site of Kölked-Feketekapu, located in southern Hungary near the Danube River, is a significant early medieval cemetery associated with the Avar Period (6th–9th centuries CE). Excavations at the site have uncovered an extensive burial ground with over 1000 graves, including culturally diverse, both richly furnished and simpler burials, reflecting the complex social stratification of the Avar population. The site is notable for its preservation of human remains, providing a unique opportunity to study the biological and cultural aspects of a population living during a transformative period in Central European history.

Studying children in paleodemography presents unique challenges due to the incomplete and often disproportionately low preservation in the archaeological records. Despite these challenges, the Avar Period site offers a unique dataset with 354 subadult remains, enabling more robust osteological and paleodemographic analyses to uncover the survivorship in childhood.

Using a multidisciplinary approach, we combined osteological and archaeological data to explore the impact of Avar Period cultural transformations on subadults. Particular attention was given to the interplay between biological parameters and the archaeological context, examining how social stratification and changing cultural practices influenced the survivorship of children. This research highlights the significance of Kölked-Feketekapu in understanding the broader effects of Avar Period societal shifts on subadults' life.

This project has received funding from the Hungarian Research, Development and Innovation Office (PD 146612).

Porotic lesions on the cranial bones of a 4–5-year-old child from Kölked-Feketekapu A, feature 169

Take-Home Message

Unveiling Childhood Through Bioarchaeology in the Avar Period Carpathian Basin: Kinship, Mobility, and Social Insights

Balázs Gyuris[1,2], Zsuzsanna Hajnal[3], Tamás Szeniczey[4], Norbert Faragó[5], Zsófia Rácz[5], István Koncz[5], Levente Samu[5], Balázs Gusztáv Mende[1], Tivadar Vida[5], and Anna Szécsényi-Nagy[1]

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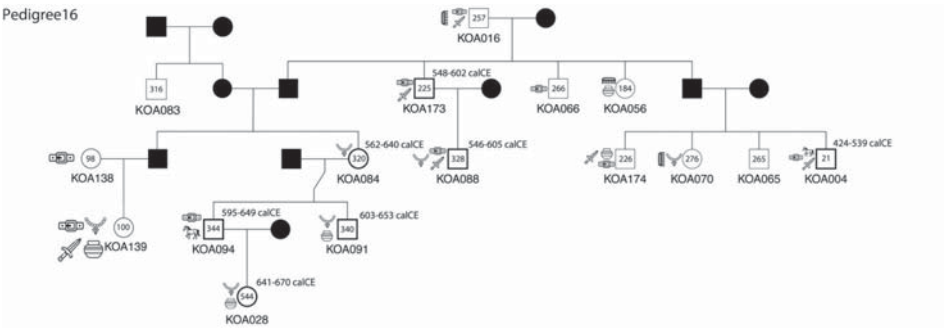
Kölked-Feketekapu, with over 1,300 graves, including smaller burial groups and larger cemeteries, is a key archaeological site of the Avar Period Carpathian Basin. Used from the mid-6th to late 8th century, the site's diverse material culture makes it exceptional for its time and region. Recent advancements in scientific methods have enabled more detailed studies of children's lives, mobility, and social roles within this Early Medieval community. Archaeogenetics, through whole-genome analyses, has facilitated the reconstruction of extended pedigrees and identification of biological relationships among individuals. At Kölked, DNA analysis of 360 individuals revealed relatedness patterns, mapping kinship structures across the cemetery's different phases of use. Strontium (Sr) isotope data from the site provides insights into children's mobility, while carbon and nitrogen (C/N) isotope analyses highlight dietary variations among pedigrees and across periods. By integrating archaeological results with reconstructed pedigrees, we gain a deeper understanding of the social roles of children and the variations in their roles within this culturally diverse community. These complex findings underscore the interdisciplinary nature of uncovering the lives of children in Early Medieval society.



A pedigree from the Kölked-Feketekapu A cemetery (Gyuris et al., in prep)

Take-Home Message

Experiencing Childhood in 6th Century CE – The Good, The Bad and The Interesting

István Koncz

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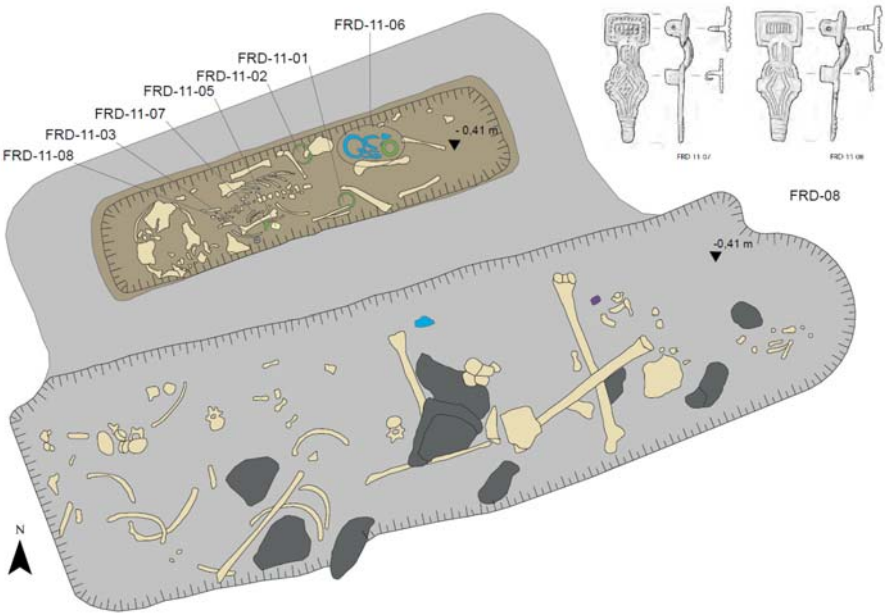
Early Medieval burial customs are influenced by a variety of aspects, with age-at-death a strong determining factor for those dying at a young age in most societies. The influence of age is understood as a reflection of contemporary perceptions of infants, children, and adolescents, shaped by their active social roles in the community. While it has been long understood that these perceptions influenced age-appropriate burial practices at both familial and community levels driven by emotional, social, religious, and economic considerations; children are still often treated as uniform groups in early Medieval research only distinguishing between very young and older categories with only more recent studies applying more detailed differentiation. Detailed osteological information combined with the access of genetic sex for non-adults from multiple comprehensively sampled 6th-century CE communities from the Middle Danube Region provided an opportunity to compare the similarities and differences between the burials of nonadult males and females, as well as to examine the relationship between genetic sex and perceived gender as reflected in the burial customs. The results show that non-adult burials display similar complexity of that of adult individuals and that perception of non-adults – while some general patterns do appear – might have been more variable between communities even within the same region than previously thought.



After Benedix, Judith: Gräberfelder des 6. Jahrhunderts nach Christus aus dem Tullnerfeld und Traisental (NÖ) : Freundorf - Oberndorf/Ebene - Pottenbrunn. Archäologische Forschungen in Niederösterreich, Neue Folge 10. St. Pölten : Amt der Niederösterreichischen Landesregirerung, Abteilung Kunst und Kultur, Landessammlungen Niederösterreich, 2024

Take-Home Message

Session 3
Feeding with Love

The artistic interpretation of Neolithic life by Margit Koncz, based on information from archaeologist Ottó Trogmayer (Koncz – Czabarka 2006)

Caring for Children in Protohistory in the Southern Carpathian Basin

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Childhood in protohistory in the Southern Carpathian Basin was studied as part of the eponymous project, funded by the Croatian Science Foundation (RP 2019-04-2520). Archaeological, anthropological, and chemical research was conducted for the analyses of stable isotopes and organic residues. The study focused on the period from the 15th to the 2nd century BC, examining archaeological traces from several cemeteries and settlements. This lecture will present the results of the project research, with an emphasis on a diachronic overview of care for children (their living conditions, diet, health, clothing) from the 15th to the 2nd century BC. The number of pathological traces recorded on the osteological remains of children from the Late Bronze Age was higher than from the Iron Age, which may suggest harsher living conditions. Examining traces of children in settlements from the Late Bronze and Early Iron Ages revealed that children participated in daily life and used the same spaces within the settlements as adult members of the community. It was attempted to reconstruct children's diet using the results of organic residue analyses and archaeozoological research of remains from children's graves. Preliminary results of stable isotope analyses may indicate differences in the diets of children in certain communities at the beginning of the Late Bronze Age. Little data has been preserved about children's clothing, which was adapted to their daily living conditions and social status. The natural environment in which they grew up served as inspiration for their daily activities and the knowledge they acquired and passed on to new generations. Although fragmentary, archaeological traces provide valuable clues for exploring numerous aspects of childhood in the past and the role of children in each community as a pledge for the future.

Batina, Croatia, assemblage of child grave 20
(photo by Bruno Jobst for Institute of Archaeology, Zagreb, Croatia)

Take-Home Message

Growing Up in the Provinces: Reconstruction of Child Health and Diet on the Outskirts of the Roman Empire

Mario Novak[1,2]

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The presentation aims to present the recent results of several completed and ongoing multidisciplinary research projects focusing on the study of childhood health, disease and diet during Antiquity (1st–6th c. CE) in the Roman provinces on territory of the modern-day Croatia. These projects use a holistic approach and multiple lines of inquiry aiming to reconstruct general health, dietary practices and possible effects of lead poisoning on subadult health in the Roman provinces of *Dalmatia* and *Pannonia* as well as *Regio X Venetia et Histria* that was part of Roman Italy. In our attempt to get a detailed picture on the above-mentioned topics we used a combination of paleopathological, isotopic and chemical analyses on more than 1,000 skeletons from over 20 sites involving coastal and inland contexts. We studied the possible effects of rapid urbanization, increased mobility, and introduction of new foodstuffs during the early stages of the Roman rule in these regions (1st/2nd c. CE) as well as the possible effects of the military/political crises, numerous 'barbaric incursions' and resulting disintegration of the central state during the Late Antiquity (3rd–6th c. CE) on everyday lives of children from the studied sites.

This study was funded by the Croatian Science Foundation (Gr. IP-2022-10-8558) and Wenner-Gren (Gr. 10476).

Fraternal twins from Trogir (Tragurium). Artist's drawing of burial 14 (drawing by M. Daniel Watkins)

Take-Home Message

Childhood on the Beach: Subadult Burials from the Cemetery of the Dominican Monastery in Bol, Croatia

Zrinka Premužić[1], Mario Novak[2,3], Josip Burmaz[4], and Dinko Tresić Pavičić[4]

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Archaeological excavations carried out in 2024 at the cemetery of the Dominican monastery of Sv. Marija Milosna in Bol, Croatia uncovered 120 graves. The monastery as well as the adjoining cemetery were founded in 1475, while the cemetery remained in use up to 1830.

Contrary to the usual underrepresentation of subadults in skeletal samples, the sample from Bol exhibits a high percentage of subadult individuals. Anthropological analysis revealed an unexpectedly high number of individuals under 20 years of age. Results of paleopathological analyses indicated the presence of very few, standardly observed pathological changes (*cribra orbitalia* and periosteal changes).

Adopting a biocultural framework, this presentation will focus on aspects of subadult morbidity and mortality in order to gain an understanding of the health status of children in this community. Accompanying archaeological data on graves (burial location, position of the body) will give insight into mortuary treatment of children, thus indicating some social aspects of childhood and social relationships between adults and children.

Dominican monastery of Sv. Marija Milosna in Bol, Croatia

Take-Home Message

Reconstructing the Subadult Dietary Habits and Health in the Late Medieval and Early Modern Continental Croatia – State of Research and Future Plans

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The end of the Late Medieval period and the Early Modern period in continental part of Croatia were marked by the Ottoman conquests, the duration of the Little Ice Age, years of famine which caused demographic catastrophe with a reduction of 3/5 of the population. All these negative changes certainly had a significant impact on numerous aspects of life (and death) for the largest part of the population, especially children who were the most vulnerable part of society. Archaeological material and written sources can inform us of such a process but a comprehensive analysis of the skeletal remains of this era can also serve as evidence.

So far child health was observed in several published papers on subadult growth, subadult stress, and infectious or metabolic diseases, however subadult dental health as well as nitrogen and carbon stable isotopes analysis with the aim to reconstruct subadult diet for these periods has not yet been performed for continental Croatia.

The plan is to submit a national project where we will try to detect these negative social, economic and political processes in the form of pathological changes in subadult teeth and bones, but also in the carbon and nitrogen isotopic signature. Osteological material which is going to be analysed derives from 11 archaeological sites dated from the 13th to the 18th centuries and for now includes approximately 350 skeletons.

The child burial no. 46 from the Lipanovac-Pustošina-Grgurevo site (Photo by Ana Pavlović Žeruk)

Take-Home Message

Being a Child in the Neolithic – Stable Isotope Dietary Reconstructions from Two Neolithic Sites in Northeastern Hungary

Enikő Somogyvári-Lajtár[1,2], *Kitti Köhler*[3], *and Alexandra Anders*[1]

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In the Neolithic period, at the advent of food production and animal husbandry, important economic and social changes can be observed, which also fundamentally altered people's dietary habits. Non-adult individuals make up a significant proportion of a population, so their research is not negligible. Even more so, as they have long been invisible in scientific work. One tool for this research is the use of stable isotopic chemistry methods.

In this research, we have chosen the dental material of human bone from two sites around Polgár (Polgár-Ferenci hát, Polgár-Csőszhalom). The burials date from the Middle and Late Neolithic, between 5400 and 4500 BC. Bones undergo constant remodelling, but teeth do not. This makes them suitable for studying childhood eating habits of the whole populations.

This study is a novel topic in the field of Hungarian prehistory. A population-wide study has not been done before. The aim of the research was to use stable isotope geochemical methods to obtain answers about the dietary habits of the communities of these two sites.

Is there a difference in childhood diet between those who died in childhood and those who lived into adulthood? Are there differences in the breastfeeding habits of children and adults? Are there differences or similarities in the weaning process between children and adults? Is there any difference between the sexes? Comparing results from two sites spanning about 1000 years - are there changes over time and space?

At the Archaeoisotope Laboratory of the Institute of Geology and Geochemistry of the HUN-REN Centre for Astronomy and Earth Sciences, we excavated and

measured tooth collagen and hydroxyapatite parts of the samples. Stable carbon and nitrogen isotope ratios were measured on tooth dentin collagen samples, and stable carbon and oxygen isotope ratios were measured on tooth enamel apatite samples.

Polgár-Csőszhalom, Feature 226 (Anders 2017)

Take-Home Message

The Appearance of Infantile and Child Scurvy in the Bishopric of Syrmia: The 17th–18th Century Necropolis at the Site of Palanka in Sremska Mitrovica

Nataša Miladinović-Radmilović and Dragana Vulović

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During the protective archaeological excavations carried out by the Institute for the Protection of Cultural Monuments in Sremska Mitrovica at Palanka site in the east part of the town in 2014 and 2016, 18 graves from the 17th–18th century period were discovered. The surveying of this necropolis is of exceptional importance, for we have an opportunity for the first time to learn details about the residents of Sremska Mitrovica at the beginning of the Modern Age. The conducted analyses have enabled us to get an insight into their health status, the influence of social and historical circumstances on the way of their life, beliefs and habits.

Particularly interesting were the cases of two children in whom traces of infantile (Grave 2/2014: an infant, of unknown sex, aged 0–6 months) and child scurvy (Grave 76/2016: a female child, aged around 6) were found. Scurvy is a disease caused by insufficient intake of vitamin C which is necessary for the creation of the connecting tissue collagen, osteoid and cement substance that connects endothelium cells of blood vessels. The disease manifests differently in children and in adults; in both forms, however, there are occasional haemorrhages (bleedings) in skin, mucous membrane, gums, muscles and bones, which can cause anaemia. The body gets the necessary quantity of vitamin C through almost all types of diet. Significant deficiency of the vitamin and the onset of scurvy is usually a consequence of natural or social disasters, such as long-term droughts or sieges. Also, it may be caused by specific culturally conditioned taboos about the use of certain foods in diet or by a long-term diet with reduced quantity of certain foods. Finally, breast milk contains vitamin C and scurvy may occur in the infants of vitamin C-deficient mothers or in infants who are not breastfed.

Sremska Mitrovica, Palanka site, grave 2/2014
(photo by Nataša Miladinović-Radmilović)

Take-Home Message

Bioarchaeological Approaches to Adolescence in Early Medieval Central Europe

Paul Klostermann[1,2], Margit Berner[1], Sabine Eggers[1], Zuzana Hofmanová[3], Doris Pany-Kucera[1], Bendeguz Tobias[4], Ke Wang[3,5], and Mary Lewis[6]

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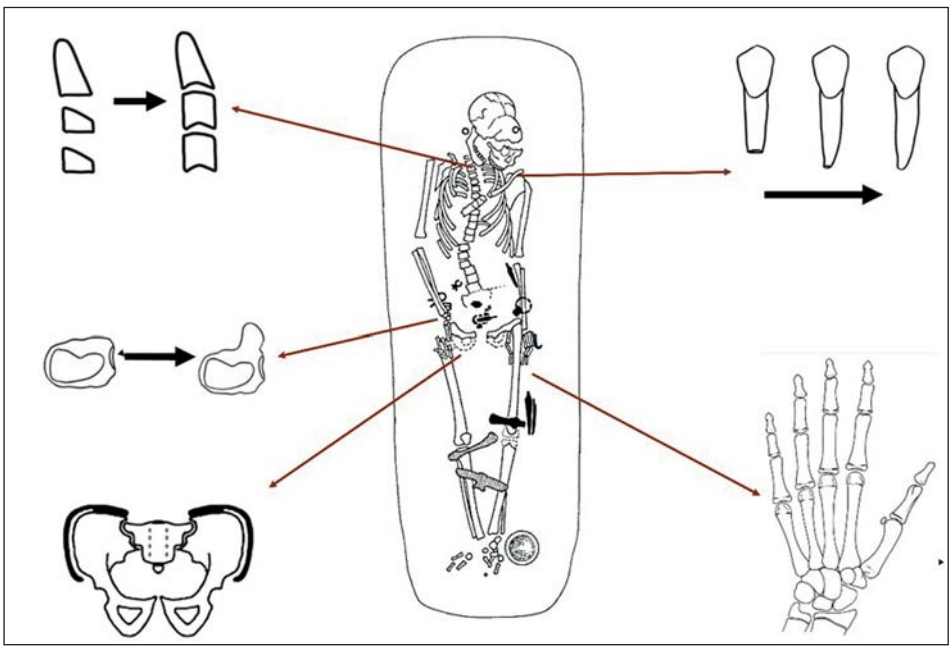
The bioarcheology of adolescence is a novel sub field in childhood research that explores the life history period between childhood and adulthood through osteological indicators that allow us to reconstruct growth and development from puberty to adulthood. Most data of pubertal timing in the past so far comes from Western and Southern Europe. This study is the first to investigate adolescent development in Eastern Central Europe and also the first from the early medieval period. This provides a continuous analysis of the timing of sexual maturation from previously published Roman to the late medieval period. In total the adolescent timing of 89 individuals from two rural cemeteries from the late Avar period in Austria was reconstructed from skeletal and dental indicators. Genetic biological sex estimation was applied to all adolescents, making this the first study to provide robust sex-specific insights into growth and development patterns in this context. While variation in dental development exists, dental age estimates appear to show that, females were on average 1–2 years younger than males at each development stage. Adolescents during the late Avar period exhibited delayed development compared to their Roman counterparts (up to 2.3 years) and, to a lesser extent, the late medieval population (up to 1.2 years). These developmental differences likely reflect variations in genetic background and the influence of contrasting urban and rural living conditions. The minimum age of menarche increased by approximately three years from the Roman period to the end of the medieval period, while general ages of maturation were comparable

between the early and later medieval periods. The physiological transition to adolescence correlates with material evidence, including an increase in burial goods at the studied sites.

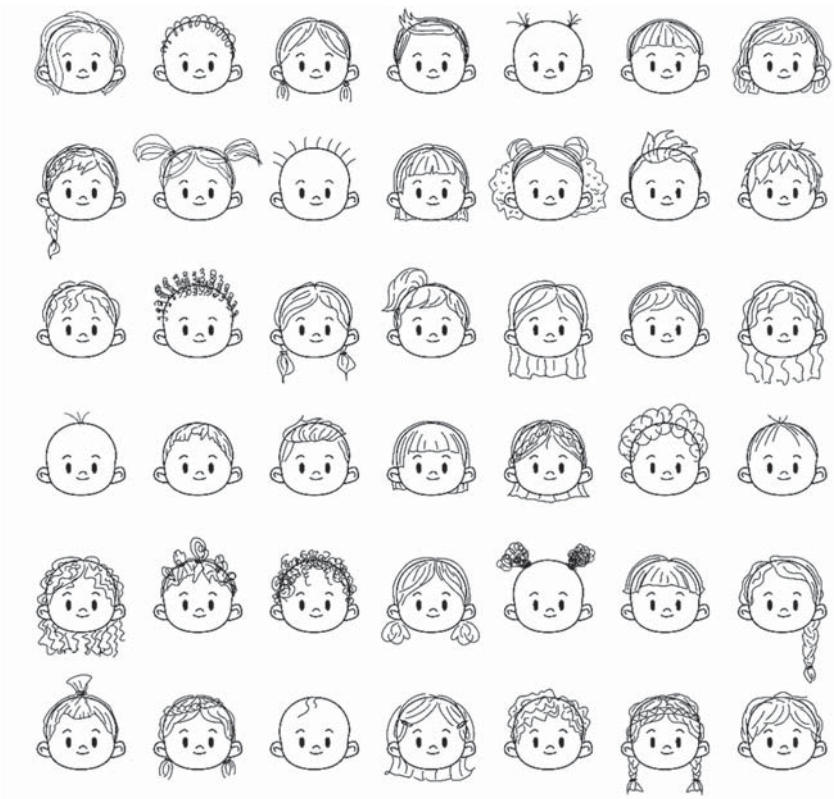
This project has received funding from the European Research Council (ERC), grant agreement n° 856453 ERC-2019-SyG.



Grave drawing Matzner/Leitner; (indicators adapted from McNamara – Bacetti 2018; Shapland – Lewis 2013; Sanders et al. 2008; Hacquebord – Leopold 2012)

Take-Home Message

Session 4
Child in Space and Time



Graphics by Zsóka Varga

Children in Copper Age Iberia: Gender, Kinship, and Social Identity in Funerary Practices

Ana Mercedes Herrero-Corral

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As part of the SKIN project (Social Kinship and Cooperative Care), this presentation explores how gender shaped funerary practices for children in Copper Age Iberian societies. An innovative multi-method approach was employed, combining peptide-based sex identification, ancient DNA (aDNA) analysis, and osteological study of nearly 50 child burials from the cemetery of Humanejos (Madrid, Spain) to detect potential funerary patterns associated with gender, age, and biological and non-biological kinship relationships.

The findings of the present study reveal, first, a striking absence of female subjects among those sexed, which is entirely incompatible with a natural sex ratio. Secondly, it shows that gender roles were assigned at remarkably early ages, closely aligning with biological sex. These roles had a significant impact on funerary practices, as demonstrated by specific burial rituals that reflected the symbolic importance of gender identity within these communities. For instance, the inclusion of particular grave goods and the positioning of the body during burial suggest that distinct roles were attributed to boys and girls, even in childhood.

By challenging assumptions about uniform funerary customs and nuclear family-based kinship structures, this research reveals how prehistoric societies constructed and expressed social identities from childhood. These findings enhance our understanding of childhood during the 3rd Millennium BCE in Iberia and offer valuable insights into broader processes of cultural change and social organization during this transformative era.

Photograph of a 4-year-old child from Tomb 49 of the prehistoric necropolis of Humanejos (Madrid, Spain), and details of the associated grave goods (Sara Genicio and Museo Arqueológico Regional de la Comunidad de Madrid)

Take-Home Message

Different Ways of Children's Burial in the Nitra Culture (Early Bronze Age)

Klaudia Daňová

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In 2019 and 2021, the Institute of Archaeology of the Slovak Academy of Sciences carried out a rescue archaeological research at a burial site of the Nitra culture (Early Bronze Age). During the research, 191 graves were uncovered. The site has not yet been fully analyzed.

The cultures of the Early Bronze Age on the territory of Slovakia exhibit specific characteristics in the burial practices. The bodies are placed in the graves according to gender: women on the left side with their heads oriented to the north-east, and men on the right side with their heads to the south-west. This orientation is also observed for children. The present paper focused specifically on child individuals. The latter were buried in separate grave pits in the burial ground. In a few cases, children were found in a common grave pit with an adult individual, specifically in four graves. In two of these graves, the children were lying with the adults at the bottom of the grave pit. In the other two cases, the children were buried in the backfill of adult grave pits. An interesting phenomenon was the children's graves touching or partially overlapping the grave pits of the adult individuals. There were seven graves. Based on gender identification according to the burial typical of the Nitra culture, it was determined that in most cases the double burials were joint burials of a man and a child. A similar situation is observed in the case of children's burial pits, which overlap with adult graves.

In such cases, missing DNA analysis could help to hypothesise the potential links between the buried men and the children.What is the situation in other burial sites of the Nitra culture? Is this a cultural phenomenon or a manifestation of the local community?

Nitra-Dolné Krškany. Graves 219 (child-girl) and 220 (adult male), (Photo by Klaudia Daňová)

Take-Home Message

Children Behind the Objects: Interdisciplinary Examination of Bronze Age Ceramic Objects

Kristóf Fülöp[1], *Orsolya Endrődy-Nagy*[2], *László Gucsi*[1], *Gabriella Pataky*[3], *and Viola Rekvényi*[4]

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Due to the unique properties of clay, ceramic objects bear the signatures of various technologies, such as the hand of the potter and the use of tools. Therefore, the technique and quality of the forming and subsequent decoration can be used to reconstruct the level of development of the potter's competencies in the creation of objects. Atypical or simplified shapes, rough and uneven surfaces, disproportionate or unusual dimensions, asymmetry, and atypical or poorly executed decoration are typical signs of a lack of knowledge and experience. In some cases, this deficiency may be linked to the age of the makers.

In this presentation, we will examine ceramic artefacts from Middle and Late Bronze Age settlements and burials using archaeological methods and theoretical and experimental approaches to childhood and educational studies and visual skills development. Studying the complex process of making ceramic objects will enable us to identify the biological and psychological age conditions under which they were made and estimate the age of children. By studying more extensive series or different contexts (e.g., household, burial), it will be possible in the future to answer complex questions such as the status of children within the community, the socialisation processes of cultural differences, or the social context of the learning process.

Late Bronze Age child burial and its miniature assemblage from Jobbágyi-Hosszú-dűlő, Hungary (© Gábor Váczi, Kristóf Fülöp)

Take-Home Message

(Bio)archaeology of Children at the Edge of the Roman Empire. A View from Late Antique Scythia (Southeastern Romania)

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The Late Antique mortuary record along the western Black Sea coast offers a wealth of information, with thousands of burials uncovered at key sites such as Callatis, Histria, Ibida, and Tomis. These sites served as important urban and administrative centers, and their cemeteries provide indispensable insights into the region's demographic composition, cultural practices, and social structures. Archaeological excavations, initiated as early as the late 19th century and continuing to the present day, have revealed a diverse array of funerary contexts, from simple inhumations to collective burials. Despite this abundance of material, the comprehensive anthropological study of osteological remains has been sporadic, leaving significant gaps in our understanding of the population's biological and social dynamics during this period.

This presentation aims to provide a concise synthesis and critical evaluation of the current state of research on children funerary practices along the western Black Sea coast. It reviews the available archaeological and osteological material, assessing the number of identified child burials, the extent of anthropological analysis conducted to date, and the potential for future research. Additionally, it addresses the limitations and shortcomings of previous investigations within the regional research landscape, highlighting the need for more comprehensive studies. Finally, it examines the role of bioarchaeology and mortuary archaeology in reconstructing the lived experiences, health, social identities, and funerary treatment of children during the Romano-Byzantine period in Scythia.

4th century child burial in amphora from Ibida
(photo by Dorel Paraschiv, ICEM Tulcea)

Take-Home Message

Children of the Past: How Prehistoric Societies Shaped Growing Up

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Childhood in prehistoric Europe was shaped by profound social transformations, and this presentation explores how these changes unfolded. Drawing on findings from the ERC project BIRTH, we explore changes in child-rearing during the Mesolithic and Neolithic periods (10,000–5,000 BC), when new modes of living and community organization reshaped early life experiences. A second fundamental shift occurred during the Bronze Age, as increasing social stratification introduced new dynamics into the lives of children, a focus of our ongoing project INFANO. Special attention is given to how these transformations impacted the lives of girls and boys.

This research is a result of the Project 'BIRTH: Births, mothers and babies: prehistoric fertility in the Balkans between 10,000–5000 BC', funded by the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (Grant Agreement No. 640557) and the Project 'INFANO: Girls and Boys in the Bronze Age Europe: Influence of biological sex on health, growth, nutrition and social position 2100–1500 BC', funded by the Science Fund of the Republic of Serbia (Grant Agreement No. 6683).

Neolithic figure, Regional museum Jagodina (Serbia)
(photo: ERC BIRTH project)

Take-Home Message

Investigating Childhood and the Mother-Infant Nexus in Past Human Populations Through Dental Mineralized Tissues

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The study of childhood in past human populations is crucial to understanding social structures, health, and survival strategies. The intimate maternal-infant relationship during pregnancy and early infancy remains an underexplored aspect of past humans. Insights into this critical relationship can be gained from the analysis of dental mineralized tissues. Indeed, teeth serve as retrospective archives of individual biological life histories, preserving information from intrauterine life through early childhood and beyond. Furthermore, dental tissues formed prenatally record the health status, diet and mobility of the mother-infant dyad during pregnancy.

State-of-the-art methodologies, including classic and non-destructive virtual histomorphometry, allow the reconstruction of infant somatic growth trajectories, physiological stresses, and mother-infant health status. Moreover, high-resolution elemental and isotopic biogeochemical analyses of dental enamel offer a unique perspective on maternal diet, nursing practices, exposure to pollutants, and mother-infant mobility patterns. Interpretative models of trace elements incorporation into dental enamel, developed from contemporary infants with well-documented dietary and anamnestic histories, are key to interpreting the lives of past individuals.

These advances in dental bioarchaeology significantly enhance our understanding of childhood and the mother-infant nexus in past human populations, allowing us to reconstruct the survival strategies, social roles, and adaptive responses of women and children in diverse cultural and environmental contexts, shedding new light on motherhood, infancy, childhood and personhood in antiquity and their implications for human evolutionary history.

Photomosaic of the thin section of a deciduous tooth seen in transmitted light microscopy

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Take-Home Message

Being a Child in the Early Bronze Age Community at Nižná Myšľa: Pilot Results

Mateusz Jaeger[1], *Anna Juras*[2], *Maciej Chyleński*[2], *Dominika Oravkinová*[3], *Zuzana Hukeľová*[3], *Mária Krošláková*[3], *Edvard Ehler*[4], *and Ladislav Olexa*[5]

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[4] Institute of Molecular Genetics, Czech Academy of Sciences, Prague, Czech Republic
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A number of significant necropolises dated to the Early and Middle Bronze Age from Slovakia's territory have been excavated, with key findings published in various summaries, catalogue overviews, or broader syntheses. Despite the potential, the role of children in these societies remains under-researched, with a bioarchaeological approach employed only occasionally. Until recently, the burial ground in Nižná Myšľa, where more than 800 Otomani–Füzesabony graves have been excavated, was no exception.

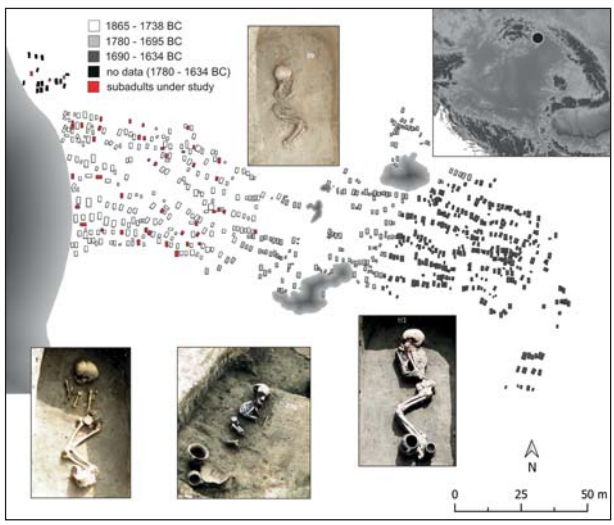
Ongoing osteological examination of more than 30 subadult individuals of different preservation showed varying dental and skeletal age-at-death. Preliminary analysis of skeletal remains revealed pathological lesions related to trauma, dental diseases (e.g., caries), and metabolic diseases such as scurvy. In addition, non-specific stress indicators including dental enamel hypoplasia, periostitis, *cribra orbitalia*, and *cribra cranii* were also frequently observed.

The initial aDNA study focusing on 23 selected individuals (consisting of one adult and 22 subadults) showed that biological kinship between individuals was frequent on the site, as was common in the region throughout prehistory. Additionally, similarly to other European societies from the Neolithic onwards, a patrilocal social structure with female exogamy seems to characterize the Nižná Myšľa population. In that regard, it is hard to determine to what degree biological kinship affected the location of burials within the cemetery. Notably, so far at least one instance of an adult buried with an unrelated child was found, suggesting that other factors than biological kinship might have also played a role in the spatial

organization of the cemetery, or that at least the double burials were signifying diverging burial customs.

Newly collected data evaluated within its archaeological contexts open up the interpretative narratives of the social dynamics and cultural practices of the Early and Middle Bronze Age community at Nižná Myšľa, highlighting the need for further exploration. Such advancements are currently supported by active international projects focusing on the Nižná Myšľa burial ground, along with the research on the other populations settled in the northern edge of the Carpathian Basin and surrounding macroregions during the late Prehistory.

The work was supported by Polish National Science Center grants nos. 2023/51/B/HS3/01381, 2023/51/D/HS3/01984, 2022/47/I/HS3/02274 and Czech Science Foundation grant no. 24-14385L.



Location of the Early Bronze Age burial ground in Nižná Myšľa in the Carpathian area (upper right corner) and the site plan featuring a spatio-temporal model showing the distribution of subadult individuals analyzed in the pilot study

Take-Home Message

Do "Sleeping" Children Talk? – Mummies of Vác, Hungary

Ildikó Pap[1], Anita Csukovits[2], and Ildikó Szikossy[3]

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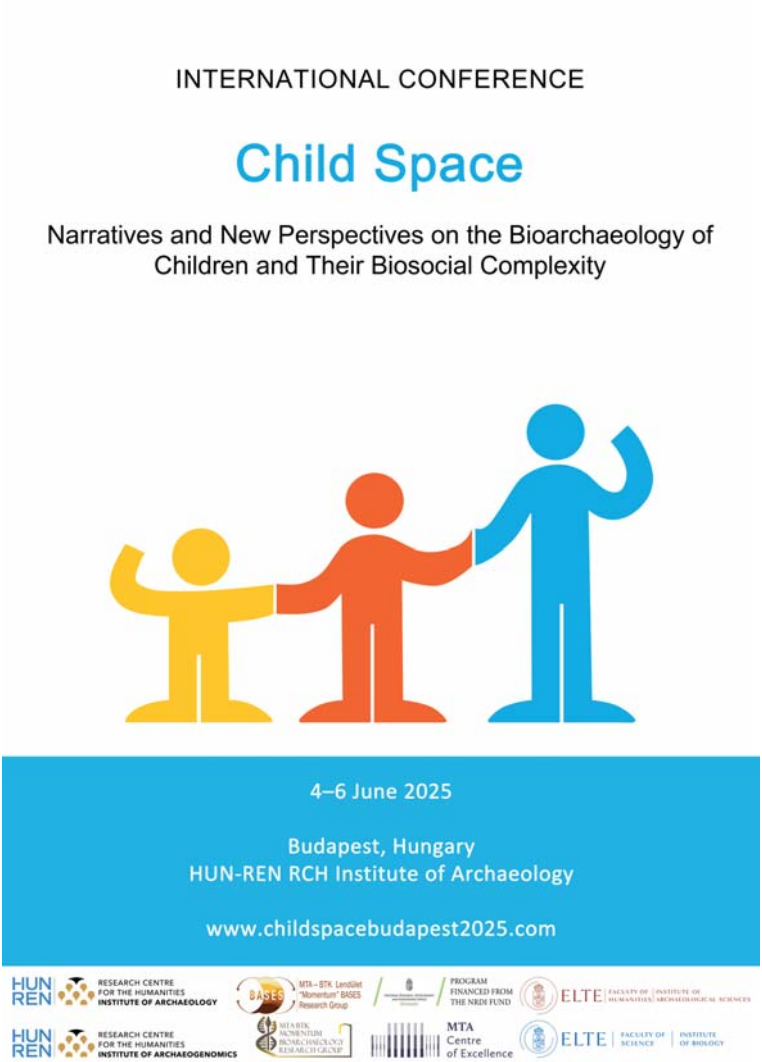
The 18th-century crypt of Vác, Hungary, provided an unparalleled collection of naturally mummified human remains, including numerous subadults. This study investigates whether these "sleeping" children can reveal insights into their lives, health, and cause of death through multidisciplinary research methods. By integrating paleopathology, molecular biology, and historical analysis, we explore evidence of infectious diseases, and cultural burial practices, in regard to the traditional and customary practices of the Vác population. The research on children's coffins and special burial objects in Vác provides a unique insight into the social and cultural significance of infant mortality in the 18th century. The well-preserved coffins and mummies, whose detailed analysis allows for an in-depth examination of contemporary burial rites, religious beliefs, and social structures. The decoration of the coffins, the attire of the deceased, and the analysis of accompanying objects help reconstruct the cultural and spiritual attitudes of the era. The burial findings in Vác contribute not only to the understanding of local customs but also provide a broader historical perspective on infant mortality and burial practices. The results play an important role in uncovering and preserving the region's cultural heritage while shedding new light on the lives and beliefs of 18th-century communities.

The findings emphasize the scientific and historical significance of mummified remains, demonstrating how past populations can still "speak" through modern research.

(1) A child's coffin from the Dominican crypt find in Vác,
(2) A child's mummy in death clothes

Take-Home Message

Poster Session



Thongs for Cattle, Work for Children? – A Rarely Identified Bone Tool Linked to Strap and Thong-Making in the Period from the Eneolithic to the Middle Bronze Age

Erika Gál, Piroska Rácz, and Mária Bondár

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The cattle-based mandibular thong-smoother, found in the Baden culture burial of a child at the site of Balatonlelle-Rádpuszta-Romtemplom mellett (Hungary), represents the best-preserved Eneolithic implement in this category in Hungary. Being one of the oldest specimens from the distribution area of mandibular thong-smoothers, it brings new information regarding the origin and possible use of this rarely identified type of tool linked to strap and thong-making in the period from the Eneolithic to the Middle Bronze Age. Having been recovered from the grave of a child, it draws attention to the possibility that children may have been involved in strap production.

The thong-smoother from Grave 870 of the Balatonlelle-Rádpuszta-Romtemplom mellett site (Photo by Erika Gál)

Child Space
Narratives and New Perspectives on the Bioarchaeology of Children and Their Biosocial Complexity

Deviant Child Burials in Medieval Central Europe
Superstitions and Parental Grief Responses in the Context of Non-Normative Funerary Rites

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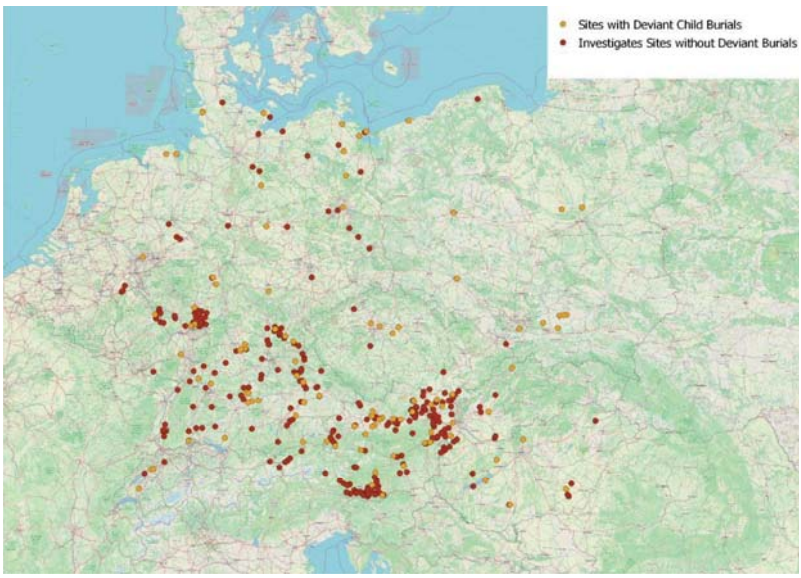
This study examines non-normative burials of subadult individuals in medieval Central Europe, addressing the androcentric bias that has long marginalized children in archaeological research. Based on 191 deviant burials from 453 sites, it explores interpretations rooted in grief coping, afterlife care, and the recognition of lost potential – challenging traditional associations with fear or superstition. By integrating psychological, medical, and ethnographic parallels, the research argues for a more nuanced understanding of childhood, parenthood, and emotional expression. The findings contribute to the archaeology of childhood by showing how burial practices reflect social perceptions, parental bonds, and responses to child death.



Distribution map of incorporated sites and non-normative child burials

From Cradle to Crypt: Personhood of Perinates in Medieval Transylvania

Lauren Renee Reinman[1], *Jonathan D. Bethard*[1], *Katie Zejdlik*[2], *and Zsolt Nyárádi*[3]

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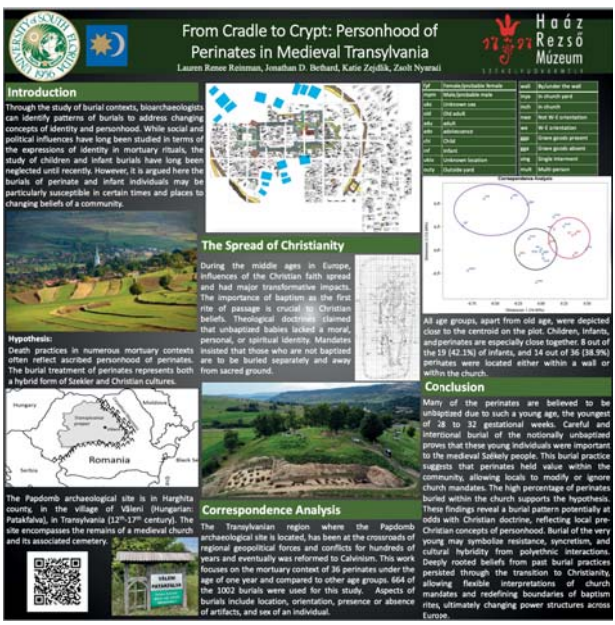
Through the study of burial contexts, bioarchaeologists can identify patterns of burials to address changing concepts of identity and personhood. This study argues that perinate burials are particularly susceptible to changing beliefs of a community. Here, the burial treatment of perinates represents both a hybrid form of Szekler and Christian cultures and argues for the personhood of perinates. This research focuses on 36 perinate burials from the Papdomb archaeological site, which includes a medieval church and cemetery in Văleni (Hungarian: Patakfalva), Romania (12th–17th century).



Child Space
Narratives and New Perspectives on the Bioarchaeology of Children and Their Biosocial Complexity

On calculating Social Status: Child Burials of the Budapest-Békásmegyer Cemetery

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Out of approximately 230, predominantly cremation burials excavated at the Urnfield Budapest-Békásmegyer Cemetery 53 had been anthropologically identified as belonging to children. Due to the wide chronological range of the graves, hence covering the entire Urnfield Period, they provide a proficient source for modelling the economic, socio-cultural and political changes that characterize the Late Bronze Age and the cusp of the Iron Age.

Using the 'Sozialindex' method proposed by Katharina Rebay-Salisbury, via examining the structures of the graves and the complexity of their assemblages one may be able to hypothesize the buried young individuals' status within the sample community.

Budapest-Békásmegyer, Grave 202, belonging to a child presumably of high social status (after Kalicz-Schreiber et al. 2010, Abb. 293)

Keeping the Children Close: Funerary Practices, Kinship and Social Identity of Children during the Early Bronze Age

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Placing bodies not only in graves within cemeteries, but also in settlement pits is a recurring practice in the Early Bronze Age Únětice Culture, for example at the site of Ulrichskirchen (Lower Austria). The site includes 12 graves and 5 settlement pits with human remains (n=21). In addition to archaeological and osteological analysis, all available individuals were sampled for ancient DNA and Amelogenin Peptide Analysis were performed. This study examines the mortuary practices, depositional patterns, and treatment of non-adults compared to adults. The complexity of funerary practices during this period is not yet fully understood, especially in relation to children.

Fig.: Human remains in settlement pit (SE 80), Ulrichskirchen, Austria (Photo: AS- Archäologie Service).

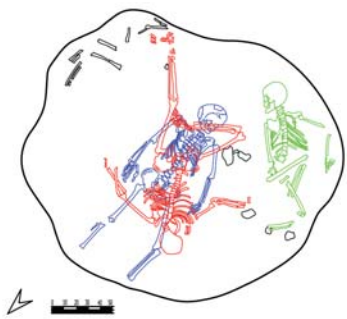

Fig.: Drawing of IND A (red), IND B (green), IND C (blue, non-adult), not asdigned human remains, finds and pit outline (black).

Infant Feeding in Iron Age Italy: A Dual Methodological Perspective on Weaning Practices

Michael Allen Beck De Lotto[1, 2], *Alessia Galbusera*[1], *Alice Paladin*[3], *Manuel Rigo*[4], *Szymon Mianowski*[1, 5], *Robert Anczkiewicz*[5], *Luca Bondioli*[5], *and Alessia Nava*[1]

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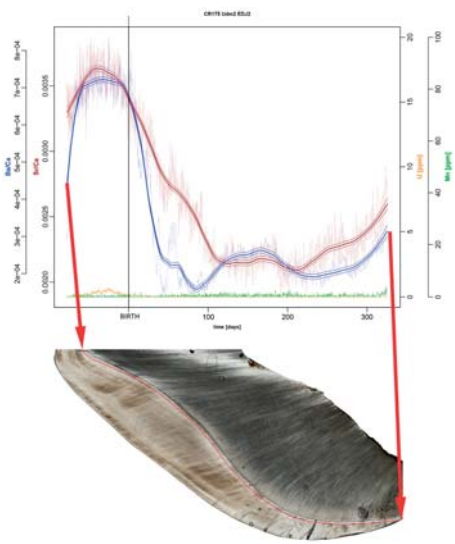
This study compares two methods for reconstructing weaning practices in ancient populations: the WARN model implemented in R ($\delta^{15}N$ analysis) and high-resolution geochemical analysis of dental enamel in histological tooth sections with LA-ICP-MS (trace element profiles). Applied to remains from the Picene necropolises of Matelica (8th–6th century BCE), the WARN model estimated weaning onset at 3.6 months, while LA-ICP-MS identified changes in Sr/Ca and Ba/Ca ratios after 100 days (3.3 months). Results show strong concordance between methods, with LA-ICP-MS offering greater temporal precision. Their integration improves weaning reconstructions, offering insight into infant nutrition in ancient communities.



Trace element profiles (top panel) along ~300 days of enamel development of an archaeological deciduous second molar. The Sr/Ca ratio peaks at birth and then decreases during breastfeeding, suggesting the onset of weaning around 100 days of life. The lower panel shows the crown's thin section with the sampling path (red line)

Children of the Villa Region: Anthropological Analysis of Harsánylejtő Site

Krisztián Kiss[1,2,3,4], *Anikó Kecskés*[1,2], *Orsolya Mateovics-László*[1,5], *Orsolya Láng*[1,6], *Balázs Mende*[1,2], *and Anna Szécsényi-Nagy*[1,2]

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A number of written sources and bioarchaeological evidence exist on the burial customs of children in the Roman Empire, but we lack information on the Pannonian Province. As part of a broader project we explore health and life in the Roman Pannonia by analyzing anthropological series of military and civil towns, furthermore villa estates. At Budapest-Harsánylejtő villa site multiple subadults were excavated alongside some adult individuals. Artificial cranial deformations, traumatic alterations, metabolic diseases and signs of infections were revealed among these burials. The Hungarian Academy of Sciences supported this research through the MTA–BTK Lendület "Momentum" Bioarchaeology research project (LP2023-20/2023).

Excavation of the Budapest-Harsánylejtő villa site from a bird's-eye view (upper right). Burials of an adult (bottom left) and subadult individual (bottom right)

Unusual Dental Wear in Two Perinates from Lisbon's (Portugal) Modern Period: Investigating Possible Early-Onset Bruxism

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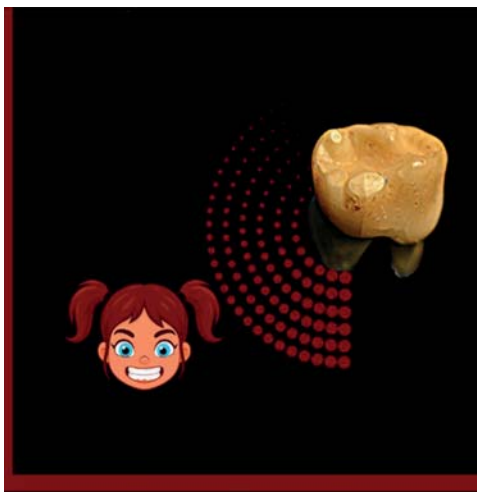
Parafunctional activities are non-functional oromandibular behaviours, such as nail biting and mainly bruxism (tooth grinding and/or clenching). Two infants from the Modern Lisbon, estimated to have died at 2.5 years of age, exhibit marked occlusal wear in the deciduous dentition. While minor wear is expected due to physiological attrition, the severity and pattern observed suggest an additional cause. Given the young age and wear characteristics, bruxism is the most consistent explanation. Although rarely identified in archaeological contexts, bruxism is a common condition in children today. Its recognition in past populations may provide valuable insights into childhood stress and behavioural patterns.



Uncovering Infant Feeding Practices in Medieval and Early Modern Estonia: An Intrabone Isotopic Approach

Alessandra Morrone[1,2]

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This study explores infant feeding practices in medieval and early modern Estonia (13th–17th centuries AD) using δ(^{13}C) and δ(^{15}N) stable isotope analysis of 120 bone samples from 40 children under six. An intrabone sampling strategy compared the proximal metaphysis, diaphysis, and distal metaphysis of long bones to track dietary changes linked to breastfeeding and weaning. Evidence of feeding-related physiological processes was found in 19 individuals. Breastfeeding likely ended around one year, while weaning continued beyond three. No urban–rural differences emerged. This approach improves dietary reconstruction, particularly where teeth are missing, and guides further incremental isotopic sampling.

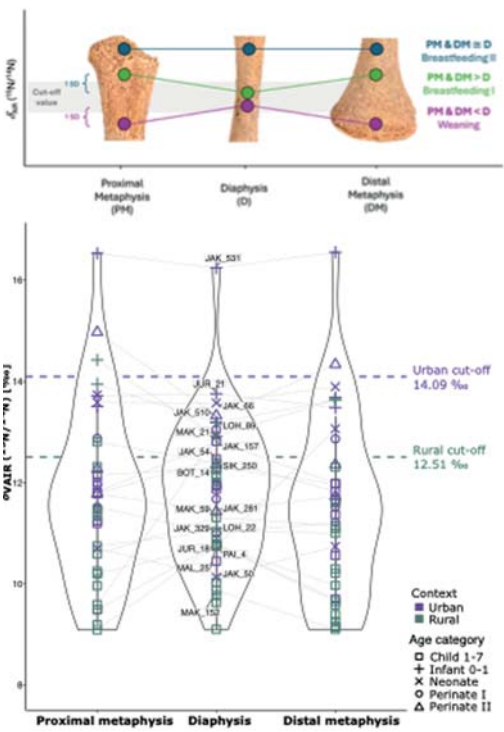

Diagram illustrating the possible interpretative scenarios for the intrabone method, and violin plots displaying the δ(^{15}N) values of the 19 individuals identified as weaning or breastfeeding. Green and purple dashed lines indicate the cut-off values for urban and rural subsamples. Dotted lines represent connections between individuals

Child Space
Narratives and New Perspectives on the Bioarchaeology of Children and Their Biosocial Complexity

Little Lives, Big Questions: Childhood, Health, and Burial Practices in the Past

Evrim Tekeli, Zehra Özbulut, Erkan Konyar, and Timur Gültekin

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This study examines the bioarchaeological aspects of non-adult individuals from the medieval Van Fortress population in eastern Turkey. By integrating ancient DNA (aDNA) analysis and pathological assessments, it explores childhood health, nutrition, and burial practices. aDNA analysis identified sex discrepancies in skeletal estimation, while pathological markers of anemia highlight early-life nutritional challenges. Burial evidence shows male infants and children were sometimes interred with ornaments, questioning gendered funerary customs. This suggests cemetery rituals reflect broader social dynamics. Although outside East-Central Europe, the study's interdisciplinary approach contributes to discussions on childhood, mortality, and social perceptions in different historical contexts.

Child skeletal remains from Van Castle Mound, Turkey (Middle Ages). Displayed with respect, these remains contribute to our understanding of childhood in past societies

The Bioarchaeology of Szekler Children: Current Work and Future Directions

Jonathan D. Bethard[1], *Lauren Renee Reinman*[1], *Vanessa C. Reeves*[1], *Katie Zejdlik*[2], *and Zsolt Nyárádi*[3]

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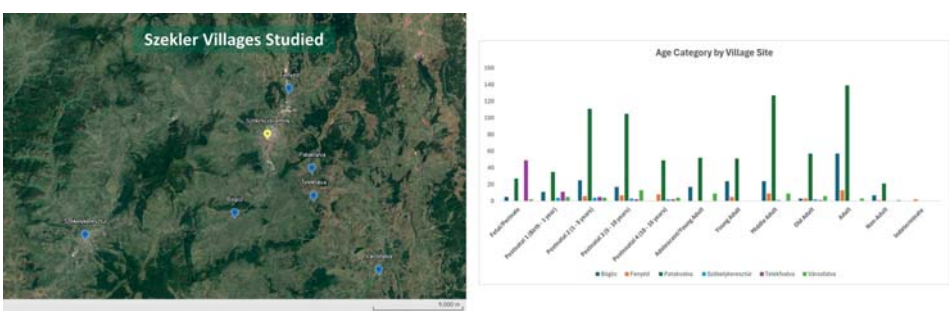
Since 2013, a multi-national research team has collaborated with the Haáz Rezső Museum to better understand the rich and complex history of the Szekler region of Transylvania. Archaeological excavations from villages in the Székelyföld have recovered hundreds of non-adult skeletons and enabled our reserach team to think about numerous questions related to the biosocial lives of children. On-going results of our research suggest that Szekler children were integral components of their communities and that their inclusion in the archaeological record provide a unique opportunity to understand complex dimensions of Szekler society.



Szekler village contexts excavated since 2013, and the age distribution of non-adults recovered from those sites

Child Space
Narratives and New Perspectives on the Bioarchaeology of Children and Their Biosocial Complexity

Children in “Mass Graves” – Anthropological Insights into Collective Burial Contexts

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Our study aimed to analyse human remains from three archaeological sites (Tiszafüred-Majoroshalom III, Hódmezővásárhely-Kopáncs XI, Tiszabő-Galamb-dűlő) from the perspectives of paleodemography and paleopathology. While the underrepresentation of children in prehistoric cemeteries is a common phenomenon, their proportion in multiple burials more closely resembles to the mortality rate expected for the period. The good preservation of the remains of children is reflected not only in the limitation of taphonomic changes, but also in the completeness of skeletal elements. Due to the special context, multiple burials provide an excellent opportunity to investigate the stress factors that affected the developing skeletal system of children.

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The skull of a 5-6-year-old child from Tiszafüred-Majoroshalom III

Subadult Burials from the Iron Age Site of Pilismarót-Basaharc

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The biritual cemetery of Pilismarót-Basaharc is a significant archaeological site representing the transition from the Early to the Late Iron Age and marking the early Celtic presence in the Carpathian Basin. Moreover, the notable number of children's graves unearthed at Pilismarót-Basaharc further emphasizes the importance of the site in archaeological and anthropological research. This study aims to explore the paleodemographic and paleopathological trends of children from this unique prehistoric site to understand better the populations that once inhabited Transdanubia.

Endocranial lesions on the occipital bone

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"Little one, who dwelt in the house of darkness" Children and Death in Ancient Mesopotamia

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Children, their lives and deaths, have only recently become the focus of research in the Ancient Near East, both for historians and philologists and for archaeologists. References to child death and afterlife in the Mesopotamian textual record are few and far in between, but the archaeological evidence shows great care accorded to the burial of children. Their funerary rites are diverse, with elements symbolizing age, status and magical protection in the Netherworld. This poster presents the first stages of an ongoing research – the author's doctoral dissertation – focusing on funerary rites of ancient Mesopotamian children.

Grave 75, Grdi Tle. ELTE's Archaeological Mission to Iraqi Kurdistan, 2023

Lower Respiratory Tract Disease – A Case Study of One Child Individual from Naissus, Serbia

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Periosteal reaction in the form of a new bone formation is not a common finding on the inner surface of ribs of children from archaeological contexts. The most common causes of these lesions are lower respiratory tract diseases and lung diseases. For this poster, we examined the ribs of children discovered at the Late Antique and Early Christian necropolis in Naissus (Jagodin Mala). On the inner surface of the ribs of one child individual, newly formed bone and destructive lytic lesions were noted. The locations of these lesions indicate that this individual suffered from a chronic disease of the lower respiratory tract.

Jagodin Mala–Bulevar Vojvode Mišića, Naissus, Grave 13 (photo by Dragana Vulović)

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