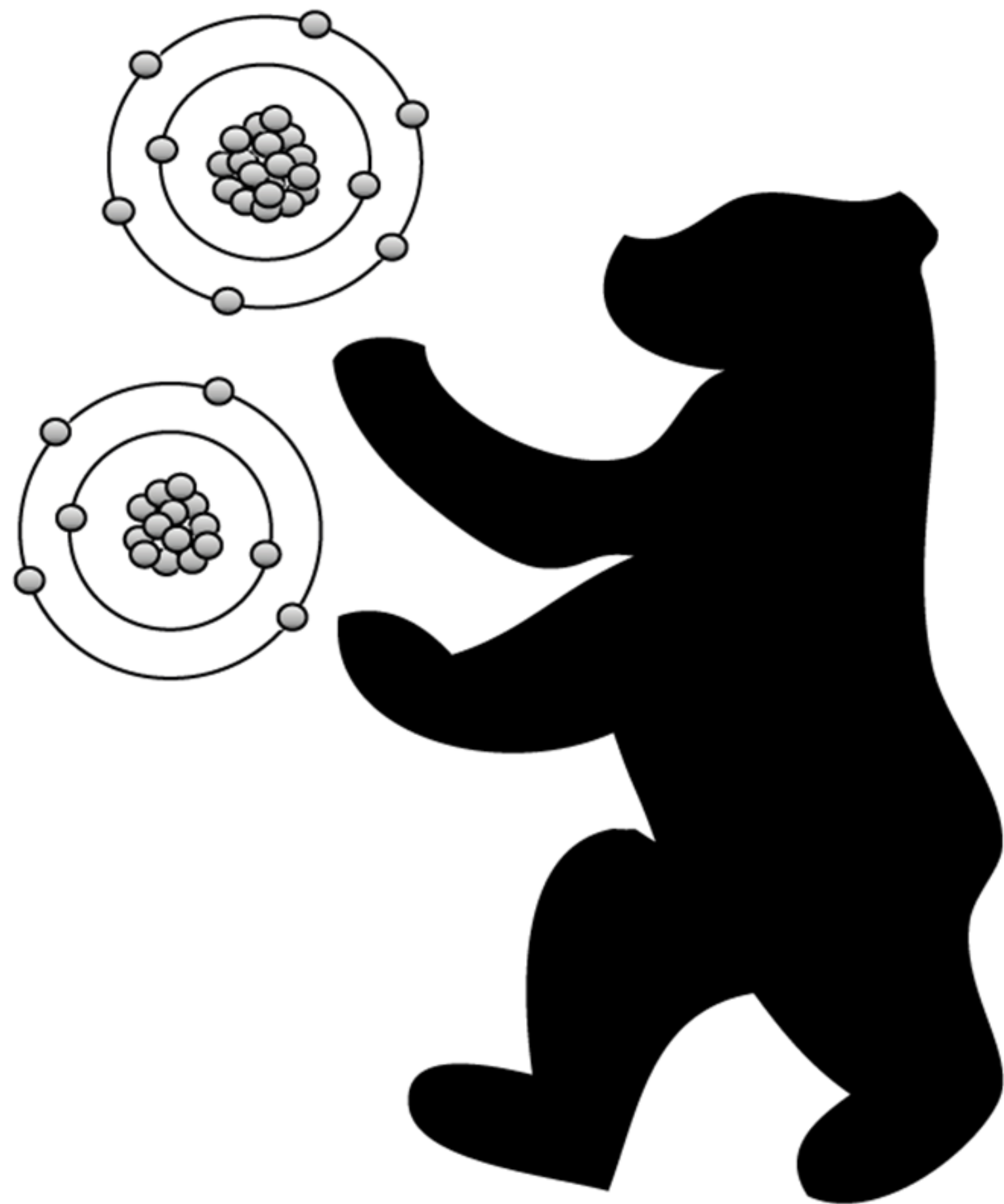


ICAZ Stable Isotopes in Zooarchaeology Working Group

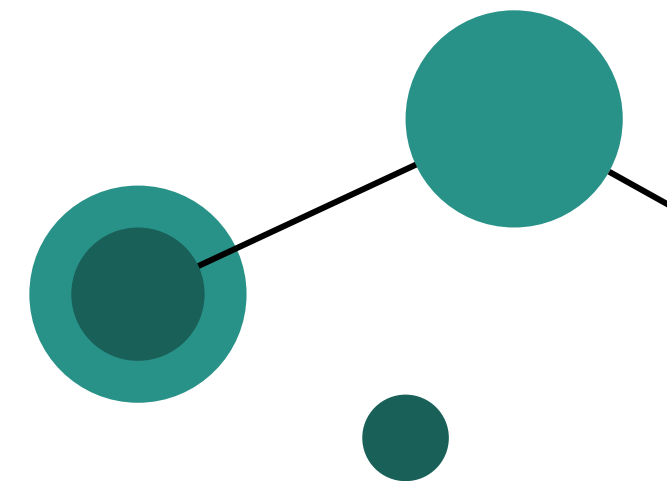
Beyond the baseline: Broadening stable isotopic horizons in zooarchaeology



SIZWG 2023

International Scientific Conference Program (outline, subject to changes), *Beyond the baseline: Broadening stable isotopic horizons in zooarchaeology.*

22.03.23 to 25.03.23 (MfN/FU, Berlin)



Wednesday 22nd March, Museum für Naturkunde

18.00: Welcome reception with keynote talks from:

• **Professor Julia Lee-Thorp** (University of Oxford)

Stable isotopes in biological apatites: what have we learnt over the last few decades?

• **Professor Christian Voigt** (Leibniz Institute for Zoo and Wildlife research, Berlin)

The nexus nature of stable isotopes: Linking the past with the present to predict the future.

Thursday 23rd March, Freie Universität/ Hybrid format

9.00-9.15: Welcome, housekeeping etc. (Roz Gillis)

Session 1: State of the art, good practices, and ethical sampling

Session chair: Vanessa Navarrete (Universidade do Évora, Portugal)

9.15-11.00: 6 Oral Presentations (15 mins + 5 mins questions)

• **Felix Sadebeck**

Making the most out of it: analysing the fattened and starved livestock siblings from Halle.

• **Priscilla Wehi**

Kahukuī (dogskin cloaks), and cultural and scientific considerations around their sampling in Aotearoa New Zealand.

• **Karolina Varkuleviciute, Cheryl Makarewicz, Christine Winter-Schuh**

To treat or not to treat? Methodological considerations for carbon and oxygen isotope analysis of enamel.

• **Alejandro Hiram Marín Leyva**

State of the art on stable and radiogenic isotopes in the paleoecology of fossil mammals in Mexico.

• **Mélanie Roffet-Salque, Richard P. Evershed, George Davey-Smith, Adrian Timpson, Yoan Diekmann, Matthew S. Lyon, Mark G. Thomas and collaborators.**

Dairying, diseases and the evolution of lactase persistence in Europe.

11.00-11.30: Coffee Break

11.30-13.30: 5 Oral Presentations incl. 20 mins discussion

•**Wouter Bonhof (online)**

Assessing the effect of permafrost on the preservation of endogenous $^{87}\text{Sr}/^{86}\text{Sr}$ ratios in dentine with laser ablation MC-ICPMS.

•**Rhiannon Stevens**

The Late Glacial Palaeolithic re-colonisation of Britain: using faunal oxygen isotopes to bridge the gap between palaeoclimatology and archaeology.

•**Izzy Davis, Melanie Roffet-Salque**

Molecular and isotopic approaches to the investigation of freshwater resource use by early central European farmers.

•**Maëlle Couvrat, É. Pubert, F. Santos, N. Vanderesse, D. Yang, C. Nékoulngang, O. Otero, A. Souron**

Reconstructing paleoseasonality is important to understand ecosystem dynamics in ancient times.

•**Carlo Coccozza, Wolf-Rüdiger Teegen, Silvia Soncin, Giulia Formichella, Mary Anne Tafuri, Ricardo Fernandes**

Tracing 8,000 years of European environmental and agricultural history using archaeofaunal Big isotopic Data.

13.30-14.15: Lunch

Session 2: Reconstruction of paleo-environments and climates
Session chair: Sarah Pederzani (Universidade de Laguna, Spain)

14.15-16.15: 6 Oral Presentations (15 mins+ 5 mins questions)

•**Sophia Politt, Helena Pribliczki, Nils Andersen, David Morris, Cheryl Makarewicz, Michaela Ecker**

Combined archaeozoological and isotopic analysis of faunal remains from Pniel 6, South Africa.

•**Maciej T. Krajcarz, Magdalena Krajcarz, Daniel Makowiecki, Wim Van Neer**

Dietary strategies in medieval urban cat populations through bone collagen C, N, S stable isotopes.

•**Benjamin Irvine, Rana Özbal, Christina Luke, Christopher H. Roosevelt, Canan Çakırlar, Felix Pirson**

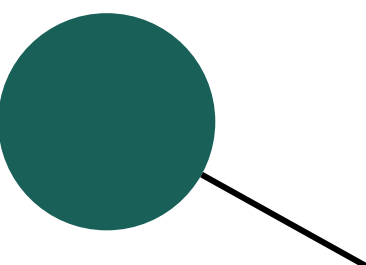
Investigating Palaeoenvironment and Animal Management in Western Anatolia from the Neolithic to the Roman Period Utilising Stable Isotopes of Carbon and Nitrogen.

•**Seminew Asrat Mogesie, Caterina Aurelli, Marianna Fusco, Mary Anne Tafuri, Enza Elena Spinapolic**

New insights into the late Pleistocene paleoecology using $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ enamel isotope evidence from Gotera, Southern Ethiopia.

•**Jennifer R. Jones, Michael P. Richards, Lawrence G. Straus, Ana B. Marin Arroyo**

Ice Age survival: Exploring the impact of microenvironments and changing faunal niches on human hunting behaviour using stable isotope techniques in a Southern European Refugium.



·**Sarah Pederzani, Manuel Trost, Nicolas Bourgon, Jeremy McCormack, Kate Britton, Helen Fewlass, Jean-Jacques Hublin, Shannon McPherron, Tim Schüler, Geoff M. Smith, Sahra Talamo, Marcel Weiss, Thomas Tütken, Klervia Jaouen**

Shining a light on C3 environments? New data on $\delta^{66}\text{Zn}$ as a proxy for herbivore grazing and plant ecosystem change in the European Pleistocene.

16.15-16.45: Coffee

16.45-18.45: 5 Oral presentations incl. 25 mins discussion

·**Michael Ziegler, Patrick Roberts, Jose Iriarte**

Exploring the Palaeoecology of late Pleistocene - early Holocene Fossiliferous Archaeological Sites in Northwestern South America through Stable Isotope Analysis.

·**Samuel Johns, Charlie Maule, Lora Angelova, Marc Vermeulen, Matthew J. Collins, Melanie Roffet-Salque**

Historical Climate Signals Preserved Within Parchments from the UK Acts of Parliament.

·**Larkin Chapman, Cyler Conrad, Caitlin Ainsworth, Emily Lena Jones, Chalowitz Thongcharoenchaikit**

The Burmese hare as a palaeoecological indicator: a stable isotope analysis from two archaeological sites in mainland southeast Asia.

·**Daniel Dalmás, Joan B. Coltrain, Matthew G. Hill**

Carbon Isotope Variation in Bison Bone from a Great Plains Riverbed Accumulation, United States.

·**Mónica Fernández-García; Ana Belén Marín-Arroyo; Sarah Pederzani; Kate Britton**

Climatic inferences from $\delta^{18}\text{O}$ and $\delta^{13}\text{C}$ preserved in ungulates consumed by late Neanderthals and early modern humans in northern Iberia.

End of first day

Friday 24th March, Freie Universität/ Hybrid format

Session 3: Herding, Hunting, Hustling and Husbandry.

Session chair: Richard Madgwick (University of Cardiff, UK)

8.30-10.30: 6 Oral Presentations

·**Eleutério Abreu De Sousa (online)**

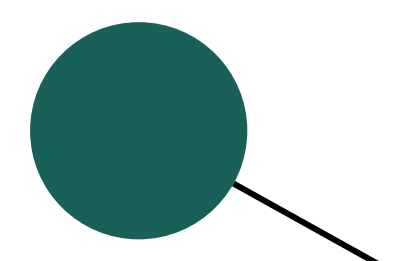
Interregional cattle exchange between Egypt and the Levant during the Early Bronze Age.

·**Ariadna Nieto-Espinet, Angela Trentacoste, Gerard Cardona, Mateo Carrocio, Leopoldo Pena, Silvia Valenzuela-Lamas**

Pioneering study in the detection of modern seasonal mobility through the analysis of strontium and oxygen stable isotopes. An example of collaborative and slow research with extensive livestock farmers in the Lleida Pyrenees.

·**Katherine French, Richard Madgwick**

Hold your horses - strontium isotopes reveal mobility amongst sacrificed horses in the Eastern Baltic (2nd-13th century AD).



•**Leia Mion, Hongjiao Ma, Peter Guest, Angela Lamb, Richard Madgwick**

Feeding the Roman army in Britain (FRAB): Supplying the frontier in Wales.

•**Emily Lena Jones, Caitlin Ainsworth, Scott Kirk, Victoria Monagle**

Animal husbandry, trade, and environmental change in historic central New Mexico: isotopic evidence from Los Ranchos Plaza and North Edith Casa-Corral.

•**Lizzie Wright, Hannah O'Regan, Angela Lamb, Jane Evans**

Box Office Bears (BOB): integrating zooarchaeology, isotopes and archives to examine early modern baiting in England.

10.30-11.00: Coffee Break

11.00-11.30: Poster session

11.30-13.30: 6 Oral Presentations

•**Nathalie Brusgaard, Michael Dee, Jildou Kooistra, Lisette Kootker, Mans Schepers, Daan Raemaekers, Canan Çakırlar**

The emergence of animal husbandry in northern Europe: new stable isotopic and zooarchaeological evidence from the Dutch wetlands.

•**Anastasia Brozou, Benjamin T. Fuller, Bea De Cupere, Anaïs Marrast, Hervé Monchot, Joris Peters, Katrien Van de Vijver, Olivier Lambert, Marcello A. Mannino, Claudio Ottoni, Wim Van Neer**

Holy mackerel! Medieval harbour cats from Iran and Oman had differential access to marine fish.

•**Richard Madgwick, Carmen Esposito, Angela Lamb**

Feasting networks at the end of the Bronze Age in southern Britain: Exploring mobility and animal management.

•**Magdalena Blanz, Marie Balasse, Delphine Frémondeau, Erika Gál, Anett Osztás, Denis Fiorillo, Eszter Bánffy, Maria Ivanova**

Livestock diets at the Early Neolithic Starčevo site of Alsónyék-Bátaszék, Hungary.

•**Blessing Chidimuro, Stuart Black**

*The Red Fox (*Vulpes vulpes*): Dietary reconstruction from stable isotope analysis of archaeological and modern fox remains.*

•**Hannah Chazin**

Isotopic analysis of more-than-human worlds in the ancient South Caucasus.

13.30-14.30: Lunch

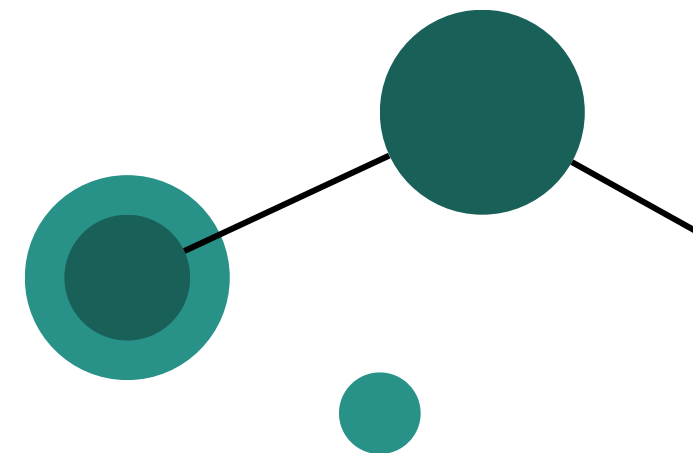
14.30-16.15: 5 Oral Presentations

•**Roger Alcàntara Fors, Richard Madgwick, Maria Saña Seguí**

Cattle on the rocks. Understanding cattle mobility and diet in the Middle Neolithic Cova de les Pixarelles (Tavertet, Osona).

•**Donna de Groene, Pamela Crabtree, Zenobie Garrett, Susan Johnston, Erin Crowley-Champoux, Kerri Clearly, Donal Murphy, Trish Long, Carmelita Troy, Derek Hamilton, Katharina Becker**

New Pastures: Livestock and lifeways in Iron Age Ireland.



•**Sarah Barakat, Mael Le Corre, Elodie-Laure Jimenez, Rebecca Lam, Vaughan Grimes, Emmanuel Discamps, Kate Britton**

Combining Sulphur and Strontium Isotopic Analysis to recreate Paleolithic Reindeer Mobility and Spatiality.

•**Angela Trentacoste, Cheryl Makarewicz**

An isotopic approach to urban ecology: investigating environmental exploitation and herd management in Archaic Italy.

•**Phoebe Heddell-Stevens, Patrick Roberts**

Investigating hominin hunting seasonality during the Palaeolithic of Eastern Germany using multi-isotope analysis of sequentially sampled herbivore tooth enamel.

16.15-16.45: Coffee Break

16.30-18.45: 5 Oral Presentations incl. 25 mins discussion time

•**Elizabeth R. Arnold, Haskel J. Greenfield, Gideon Hartman, Tina Greenfield**

Provisioning early complex society in the Southern Levant: domestic animal production and management during the Early Bronze Age.

•**Silvia Valenzuela-Lamas, Ariadna Nieto-Espinet, Domingo Carlos Salazar-Garcia, Angela Trentacoste, Silvia Guimarães, Pere Castanyer, Joaquim Tremoleda, Marta Santos**

Animal mobility at Empúries from the Late Bronze Age to Late Antiquity: a complex picture from zooarchaeology and a multi-isotope approach.

•**Freya Riedel, Dorothée Drucker, Britt Starkovich, Simon Trixl**

Weather matters - Reconstructing climate and life histories of Roman-Germanic Equids from Heddesheim (GER) through $^{18}O/^{13}C$ analysis.

•**Aleksa Alaica, Luis Manuel González La Rosa, Kelly Knudson (online)**

At the site level: Interrogating isotopic patterns among fauna from households, plazas, and elite spaces in the ancient Andes.

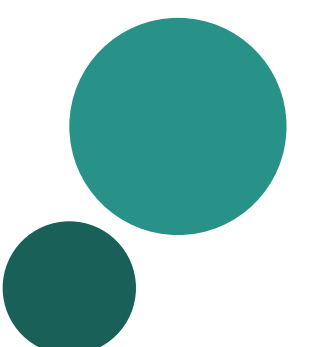
•**Lua Valenzuela-Suau, Sílvia Valenzuela-Lamas, Leopoldo D. Pena, Marta Díaz-Zorita Bonilla, Damià Ramis**

New data to understand strontium isotopic bioavailability and caprine mobility during the Late Prehistory of the Balearic Islands (Spain).

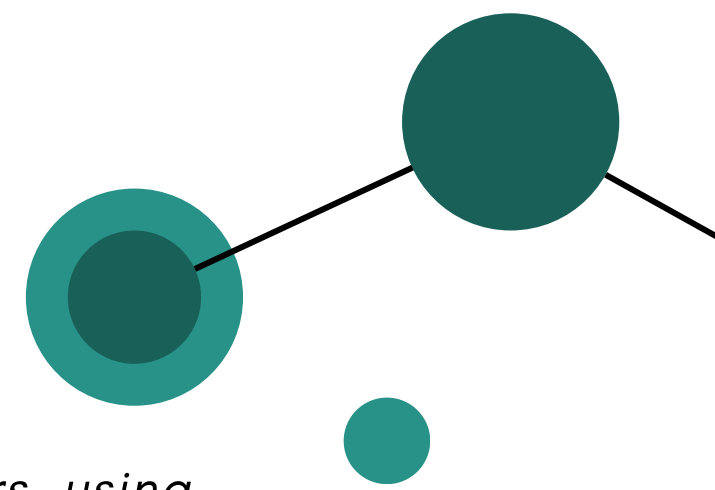
20.00: Conference dinner

End of Conference

Saturday 25th March, Conference excursion



Posters



Gaia Mortier, Stuart Black, Alejandra Perotti, Andrew Kitchener

What makes them tick: ancient ectoparasites as archaeological proxy indicators using stable isotopes.

Celia Díez-Canseco, Mònica Aguilera, Carlos Tornero

Broadening horizons in intra-tooth isotopic analysis: a new dentine sampling strategy for caprine species.

Jesse Wolfhagen

Examining Variability Seasonal Behaviors with Bayesian Cyclical $\delta^{18}O$ Regression Models.

Magdalena Krajcarz, Maciej T. Krajcarz, Hervé Bocherens

The IsoTroph project - Advanced techniques in isotopic biogeochemistry for the estimation of fossil mammal trophic position.

Juliette Waterman, Stuart Black, Naomi Sykes, Mark Fellowes

Ancient eagles: the first dietary stable isotope data and a radiocarbon date for an archaeological eagle from Fishbourne Roman Palace.

Mariya Antonosyan, Satenik Mkrtchyan, Levon Yepiskoposyan, Patrick Roberts, Noel Amano

Multiproxy Evidence Late Pleistocene environment in the South Caucasus.

Chris Baumann

First evidence for synanthropic behavior in Late Pleistocene ravens.

Hazel Reade, Delphine Frémondeau, Rhiannon Stevens

A major continental-scale late Pleistocene sulfur excursion: environmental change, permafrost thaw and the importance of sample sharing and multi-disciplinary collaboration.

Jana Eger, Claudia Gerling, Martin Riesenberg, Evgenii Gak, Elke Kaiser

Isotopic perspectives on pastoral practices at the Middle Bronze Age settlements Ksizovo-1 and Rykan-3.

Shu Yang, Jacqui Mulville, Ben Jervis

Provisioning Medieval Southampton: A Bioarchaeological Approach.

Elizabeth R. Arnold, Tina Greenfield

"Ass"essing the role of domestic animals in Ancient Mesopotamia: A bioarchaeological perspective from Abu Salabikh.

Roz Gillis, Richard Madgwick, Marta Dal Corso, Federico Polisca, Katie Faillace, Cristiano Nicosia

Bronze Age herding in Northern Italy: case study of Oppeano multi-proxy isotope approach.

Theodore West, Elise Dufour, Brice Ephrem, Benoît Clavel, Isabelle Pianet

Fishing and fish trade during the Roman era in southwestern France: an isotopic approach.

Vanessa Navarrete, João Luís Cardoso, Cleia Detry

Animal management practices in the western Iberia Peninsula during the Neolithic-Chalcolithic transition: the study case of Leceia.

Rana Özbal, Stephanie Emra, Safoora Kamjan, Eylem Özdoğan, Norbert Benecke

Stable carbon and nitrogen isotope results for faunal samples from Aşağı Pinar.

Delphine Fremondeau, Bea DeCupere, Wim Van Neer, Rhiannon Stevens

Stable isotope insights into goat birth seasonality at the Early Byzantine site of Sagalassos, SW Turkey.

Canan Çakırlar, Thom Brongers, Suzanne Pilaar Birch

Neolithic herd management and foraging ecologies of wild fauna in Istanbul around 8.2k BP.

Adriana Leite, António Valera, Nelson Almeida, Cláudia Relvado, Rosalind E. Gillis

Investigating sheep management practices at the site of Perdigões (4th millennium BC, South Portugal) via sequential carbon and oxygen isotopic analyses of tooth enamel.

