The OneArchSci Newsletter #2

12 November 2025

STAY INFORMED WITH THE LATEST UPDATES!

OneArchSci So Far — Highlights & MilestoneS

The OneArchSci Project has made significant progress in building research skills and engaging communities. Workshops led by Dr. Petra Vaiglova introduced advanced approaches to isotope analysis, while Mr. Frank Stremke demonstrated GIS mapping for archaeological datasets, and Prof. Patrick Degryse explored radiogenic isotopes for dating and provenance studies. Beyond training, the project connected local youth and communities in Paphos and Nicosia with archaeological science, offering interactive workshops that highlighted scientific methods, ancient Cypriot food traditions, and cultural heritage.

Training Achievements: Summary of Completed Events

Training Workshop: Fundamental Statistics for Isotope Analyses

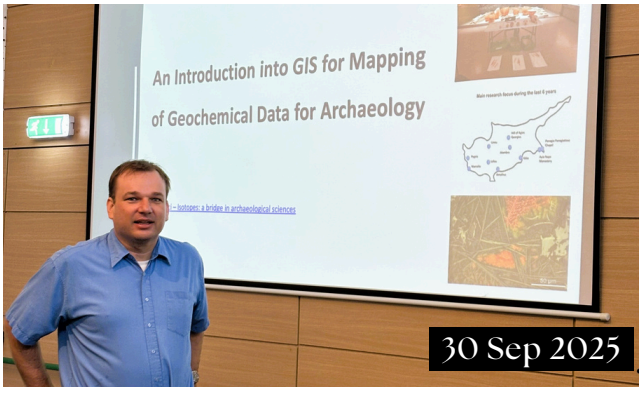
Dr Petra Vaiglova, biomolecular archaeologist and Lecturer at the Australian National University, led a hybrid workshop on key statistical concepts in isotopic data analysis. The workshop equipped participants with essential statistical tools, moving beyond p-values and statistical significance and placing emphasis instead on estimation thinking.

Watch the workshop here.

Hybrid Seminar: Using Developmental Growth Patterns in Teeth to Improve the Resolution of Isotopic Analyses: a Case Study of Wild Boar Feasting in Early Neolithic Asiab, Western Iran

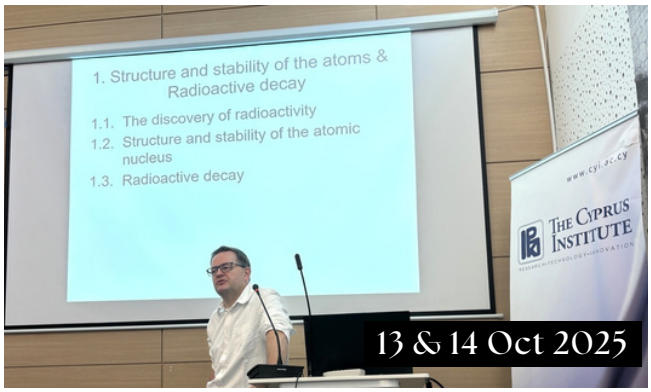
Dr. Vaiglova presented a study using improved isotopic analysis aligned with tooth growth to examine wild boar teeth from an Early Neolithic feasting site at Asiab in western Iran. Innovative approaches were presented to enhancing the resolution of isotopic analysis, coupled with dental histological data.

Watch the seminar here.



Training Seminar: An Introduction into GIS for Mapping Geochemical Data for Archaeology

Mr. Frank Stremke, an Archaeologist and documentation expert, demonstrated how to use open-source GIS software, QGIS, to transform raw geochemical datasets into clear, informative maps for archaeological research. The presentation focused on freely available QGIS tools and showed how they can be applied to visualize and analyze different types of archaeological data.



Training Workshop: Radiogenic Isotopes. From Geology to Archaeometry

Prof. Patrick Degryse (KU Leuven & ERA Chair at the Cyprus Institute) led a two-day workshop on radioactive decay and its impact on the isotopic compositions of strontium (Sr), neodymium (Nd), and lead (Pb). Participants explored how these isotopes are used for dating in Earth sciences and archaeological provenance studies, combining theory with hands-on exercises in date calculations, mixing line reconstruction, and raw material sourcing.

OneArchSci Workshops in Primary & Secondary Schools

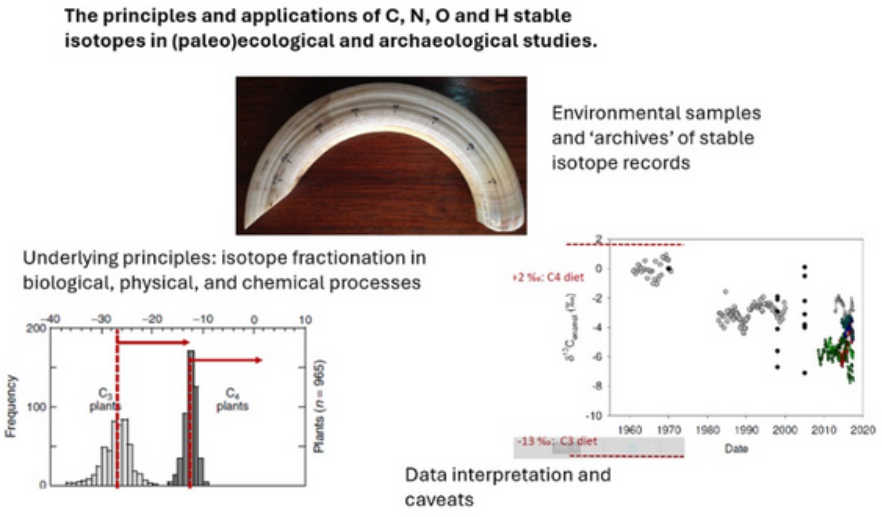
Connecting Youth with Ancient Heritage

As part of the OneArchSci project, the environmental archaeology team, led by Dr. Margaritis, organized workshops in Paphos (Anassa Hotel and Polemi Primary School) and Nicosia (Pascal Private Secondary School) introducing students and local communities to archaeological science. Activities included “The Ancient Master Chef,” which explained the field of archaeological science; “Roots of the Mediterranean Diet,” which explored ancient Cypriot food traditions and their cultural significance; and “Archaeological Sciences in Action,” where final-year students and their teachers experienced scientific methods used in archaeology. These events promoted scientific understanding, connecting youth with their heritage.

Upcoming Training Workshop

Save the Date!

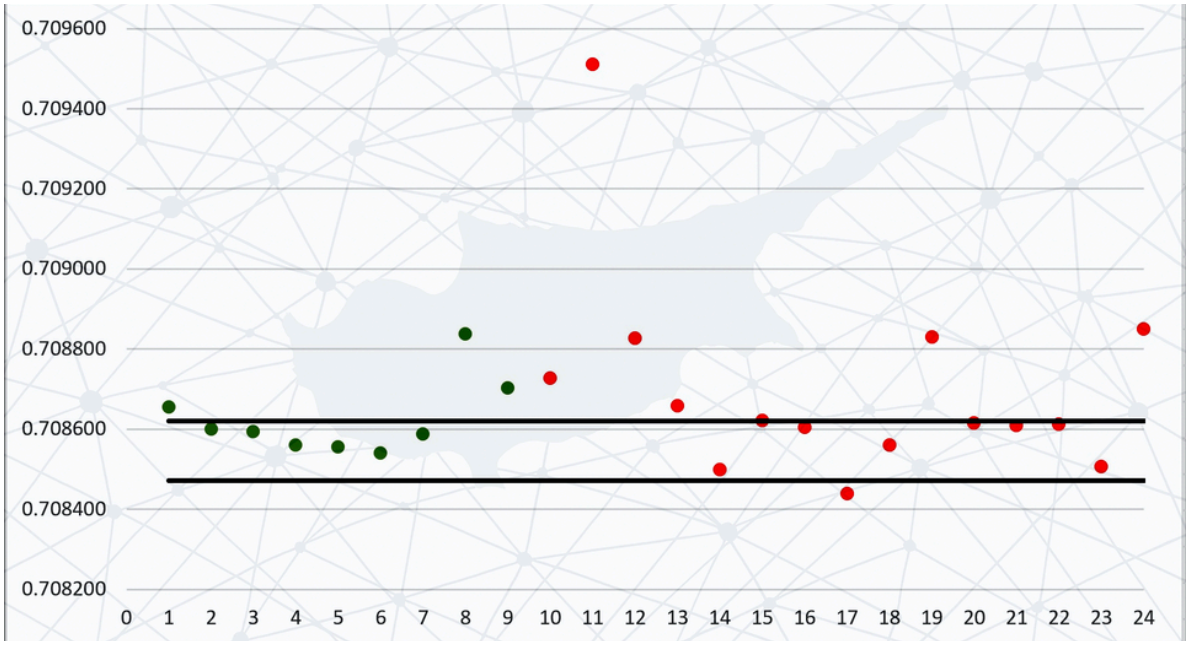
27 & 28 Nov 2025



Hybrid Training Workshop:
The Principles and Applications of C, N, O and H Stable Isotopes in (Paleo)ecological and Archaeological Studies

Prof. Steven Bouillon, Department of Earth & Environmental Sciences, KU Leuven, will cover the basics underlying the use of stable isotope ratios of light elements (in particular C, N, O, and H) in ecological and archaeological studies. This includes the principles of isotope fractionation during photosynthesis and in food webs, fractionation in the hydrological cycle, and isotope fractionation during carbonate precipitation. We will discuss why a thorough understanding of these principles (and the caveats involved) are critical to interpreting stable isotope data of environmental samples, whether from contemporary systems or organisms, or from the past.

More details and registration links are available here.



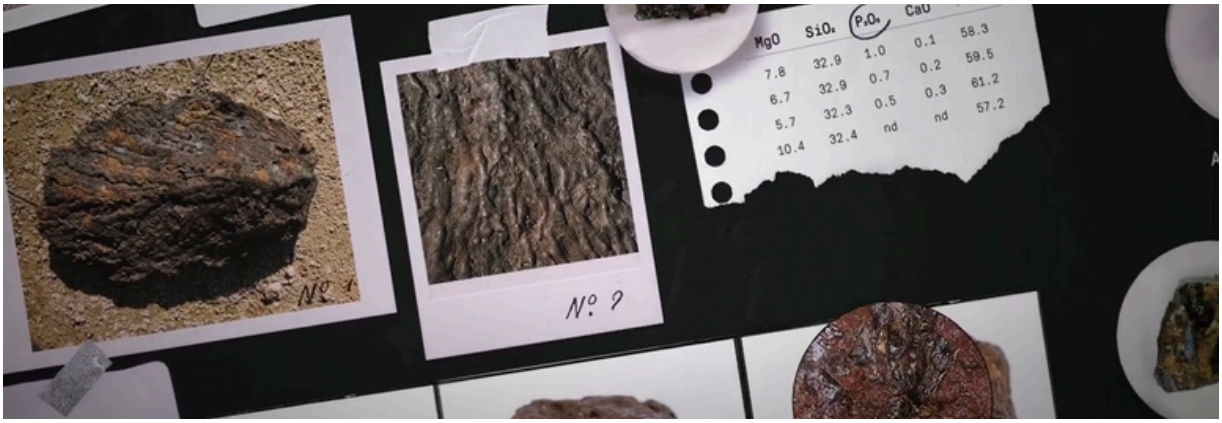
Who came from where? Mobility patterns in Byzantine Cyprus

In a case study led by Dr. Efthymia Nikita, human mobility was explored in Byzantine Cyprus, using the site of the Hill of Agios Georgios in Nicosia. The analysis of mobility was based on strontium isotopic data, with the aim of identifying non-local individuals and estimating their frequency in different periods of use of the site (Early Christian and Late Byzantine/Frankish). The isotopic results identified one individual who likely originated outside Cyprus and several more, the number of which differs pending on the bioavailable baseline used, who were non-local to the burial site. These non-local individuals temporally spanned both periods under study but they were more common in the Late Byzantine/Frankish assemblage, which is in agreement with historical data pointing to elevated mobility throughout Byzantine times but more so in the later periods.

Notice how we said above that the number of non-locals differs depending on the baseline we use? A lot more work is needed in order to establish accurate and regionally-specific baselines for bioavailable strontium in Cyprus. A relevant issue in island contexts is the so-called sea-spray effect, that is, the influence of seawater, which has an identical value across the world.
The OneArchSci team has already started systematic fieldwork in order to address these issues. You will find us collecting plants, soil and rocks across the island to study the influence of geology versus other factors.

Stay tuned!

Read the full article here



One Archaeological Science in the BEMME region: An overview

HORIZON-WIDERA-2023-TALENTS-01

GA: 101186503

Starting Date: 01.01.2025

Duration: 60 months

Funded by the European Union

The OneArchSci project, aligned with the European Commission's ERA Chair objectives, aims to drive institutional reform, optimise research infrastructure, attract top research talent, and foster interdisciplinary collaboration. It has appointed Professor Patrick Degryse (KU Leuven) as the OneArchSci ERA Chair, bringing world-leading expertise in archaeological materials science to strengthen the Archaeological Science Group (ASG) at the Cyprus Institute.

Focusing on advanced isotope analysis tailored to the Balkans, Eastern Mediterranean, and Middle East (BEMME) region, OneArchSci promotes a 'One Science' approach that integrates diverse scientific disciplines, supports postgraduate and postdoctoral research, and enhances cooperation with SMEs, governmental bodies, and NGOs in archaeology, cultural heritage, and related sciences. These activities align with the priorities of Cyprus' Smart Specialisation Strategy 2030.

Thank you for reading!

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