



## 8<sup>th</sup> ARCH\_RNT SYMPOSIUM

Archaeological Research  
& New Technologies

*In Memoriam Nikolaos Zacharias*

## SYMPOSIUM PROGRAMME

3-5 OCTOBER 2024, KALAMATA

Under the auspices :



Co-organised by:



Ελληνική Δημοκρατία  
Περιφέρεια Πελοποννήσου



Δήμος Καλαμάτας



<b>Thursday, October 3</b>	
09:00 - 10:00	Registration
10:00 - 10:30	Welcoming Remarks and Opening Ceremony
10:30 - 11:30	In Memoriam Nikolaos Zacharias
<b>11:30 - 13:10</b>	<b>SESSION 1: Metals</b> <i>Chairperson : M. Xanthopoulou and A.G. Karydas</i>
11:30 - 11:50	O1. Provenance of copper at Gre Filla (Turkey) (A. Konak, Ü. Muşkara, S. Karakoyünlü Bozbaş and M.B. Telli)
11:50 - 12:10	O2. Samothracian Middle Bronze Age metallurgy: The evidence from Mikro Vouni (N. Nerantzis and D. Matsas)
12:10 - 12:30	O3. Assessing artefact diversity in mortuary contexts of the Greek mainland during the Late Bronze Age Aegean (D.C.M. Brown)
12:30 - 12:50	O4. Towards a better understanding of prehistoric crucible metallurgy based on field experiments (V. Orfanou, B. O'Neill, D. Müller, B. Molloy and L. Burghardt)
12:50 - 13:10	O5. Experimental analyses of ancient Chinese soldering techniques for gold granulation (Y. Wen, Y. Shi, W. Li, H. Chen, G. Vavouranakis, Y. Papadatos, T. Zhang and J. Yang)
13:10 - 13:30	Naming Ceremony of the "Kalamata 1821 Digital Museum" in memory of Prof. Nikolaos Zacharias
13:10 - 14:30	Lunch Break
<b>14:30 - 17:00</b>	<b>SESSION 2: Bioarchaeology I</b> <i>Chairperson : C. Papageorgopoulou</i>
14:30 - 15:00	<b>Invited talk:</b> O6. A bottom-up view in Bioarchaeology: Advancements in the study of the human past (C. Papageorgopoulou)
15:00 - 15:20	O7. Revolutionizing archaeological research: Crafting OsteodataLab, a unified digital repository for ancient human remains (C. Georgakis, G. Pavlidis and C. Papageorgopoulou)
15:20 - 15:40	O8. Seasonality and subsistence: Non-adult scurvy in early Medieval Jaun Valley, Carinthia, Austria (A.M. Srienć-Sćiesiek)
15:40 - 16:00	O9. Shedding light on stress: The examination of vitamin D deficiency through Histomorphological and Stable Isotope Analysis (P. Bantavanou, E. Ganiatsou and C. Papageorgopoulou)
16:00 - 16:20	O10. WEAN 2.0: A method for comprehensive bridging temporal gaps in isotopic records of incremental dentine analysis (E. Ganiatsou, A. Souleles and C. Papageorgopoulou)
16:20 - 16:40	O11. Actions with an impact: Experimental approach for the understanding of paramasticatory striations on dental remains (A. Strimenopoulos, E. Rosolani, C. Villa Sola, C. Arecheta Baratelli and M. Lozano)
16:40 - 17:00	O12. Traces of daily life in Pompeii: Combining methodological innovations in Isotopic Analysis (V. Giacometti, N. Mantile, S. Altieri, M.R. Di Cicco, C. Cocozza, S. Soncin, V. Amoretti, M.A. Tafuri and C. Lubritto)
<b>17:00 - 18:10</b>	<b>POSTER SESSION I</b>
<b>18:10 - 19:50</b>	<b>SESSION 3: Remote sensing and geophysical analysis</b> <i>Chairperson : G.N. Tsokas</i>
18:10 - 18:30	O13. When photogrammetry meets hydrography – New method of referencing models based on MBES point cloud (M. Popek, Ł. Janowski, A. Pydyn, K. Kurzyk, J. Różycki and P. Litwinienko)

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18:30 - 18:50	O14. Archaeological Prospection as a tool for unrevealing the organization and main building units of ancient occupation sites (G.N. Tsokas, D. Kaimaris, A. Karamitrou and D. Tsokas)
18:50 - 19:10	O15. Fusion of Remote Sensing data for ancient landscape interpretation: The Pylos Geoarchaeology Project (M. Kylafi, V.V. Panagiotidis, A. Kazolias, A. Karamitrou, E. Militsi, A. Stampolidis and G. Tsokas)
19:10 - 19:30	O16. Rural landscapes in the territory of Istros/Histria (Romania). Interdisciplinary research in the Beidaud archaeological microzone (V. Bottez, A. Şerbănescu, I. Iliescu, M. Dobre, F. Miron and A. Vespremeanu-Stroe)
19:30 - 19:50	O17. Searching for Roma at Late-Medieval Methoni : Recent research and preliminary results (S. Van Keuren, V. Koutrafouris, J. Steinberg, A. Kazolias, V.V. Panagiotidis and E. Manetta)
20:00	Welcome Cocktail at Adelante Bar

### Friday, October 4

<b>09:00 - 11:00</b>	<b>SESSION 4: Pottery</b> <i>Chairperson: E. Gliozzo and E. Zimi</i>
09:00 - 09:20	O18. Crafting choices for pottery-making in prehistoric Thermi-Lesbos, Greece: Manufacturing strategies and connectivity (S. Menelaou)
09:20 - 09:40	O19. Pottery manufacturing strategies at the Market Town of Bagasra (Gujarat, India), Indus Valley Civilization: A detailed case study (S. Sarkar, S. Boyatzis and N. Zacharias)
09:40 - 10:00	O20. Hittite pottery from Boğazköy/Ḫattuša: Understanding production through petrographic and chemical analysis (M. Kibaroglu, D.P. Mielke and F. Şişman-Tükel)
10:00 - 10:20	O21. Characterization of Dauna ceramics: Multi-technique analysis and historical implications (C. Biscotti, G. Manelli, A. Mangone and L.C. Giannossa)
10:20 - 10:40	O22. The archaic Mediterranean exchange networks seen from the west. pXRF analysis of Greek imports from La Fonteta (Alicante, Spain) (8 <sup>th</sup> -6 <sup>th</sup> centuries BC) (M. Del Pino Curbelo, J.G. Inanez, R. Esteve Tébar, R. Graells I Fabregat, E.L. Rosendo, A.J. Lorrio and M. Torres Ortiz)
10:40 - 11:00	O23. Islamic glazed ceramics from Mértola (Portugal). An archaeometric study of metallic lustre glazed wares. (S. Nikologianni, J. Mirao, S. Gómez Martínez and M. Beltrame)
11:00 - 11:20	Coffee Break
<b>11:20 - 12:30</b>	<b>SESSION 5: Conservation</b> <i>Chairperson: G. Mastrotheodoros</i>
11:20 - 11:50	<b>Key Note Talk:</b> O24. Let mother nature teach us: bio-inspired materials and strategies for the study and conservation of Cultural Heritage (S. Boyatzis)
11:50 - 12:10	O25. The vulnerability of archaeological artefacts: The importance of innovative conservation (C. Ozdemir, N. Sgarro, F. Langerame, M. Kotlar, L. Emanuele and L. Scranò)
12:10 - 12:30	O26. The three phases of the Material Checker (MAT-CH) project. From the project idea to the implementation of substeps (S. Maric, A. Jeberien, N. Alkash and B. Szyszka)

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<b>12:30 - 13:30</b>	<b>SESSION 6: Bioarchaeology II</b> <i>Chairperson: E. Ganiatsou</i>
12:30 - 12:50	O27. 2-step Laser Mass Spectrometry analysis of food residues in pottery: Wine and cacao (E. Smith, A. Parejo-Vidal, J. Didziulis, S. Tyson-Smith and M.S. De Vries)
12:50 - 13:10	O28. The bioarchaeology of urbanization in ancient Thessaloniki (A. Aidonis, C. Kakasa, E. Ganiatsou, P. Bantavanou, S. Protopsalti, S. Tzevreni and C. Papageorgopoulou)
13:10 - 13:30	O29. A multidisciplinary approach to a Roman burial site: Archaeoethanatology as the preferred method for studying burial practices at the Beidaud site (Romania) (G. Granier, V. Bottez, E. Caserta and I. Iliescu)
<b>13:30 - 14:30</b>	<b>Lunch Break</b>
<b>14:30 - 16:30</b>	<b>SESSION 7 : Glass</b> <i>Chairperson : J. Henderson</i>
14:30 - 14:50	O30. A Proto Silk Road in the West? A 'new' glass technology and evidence for East-West connections (J. Henderson and S. Chenery)
14:50 - 15:10	O31. Glass in Late Antiquity in Greece: An overall assessment (A. Oikonomou)
15:10 - 15:30	O32. At the edge of the empire, at the turn of the millenium: Glass supply and glassworking practices on the periphery of Byzance (a case study of window glass from Veseloye, North Western Caucasus) (O. Rumyantseva, E. Armarchuk, I. Kuzina, A. Mastykova, M. Chervyakovskaya and V. Chervyakovskiy)
15:30 - 15:50	O33. A 10 <sup>th</sup> -11 <sup>th</sup> century glass workshop in Akhsiket, Uzbekistan: A case study to understand Early Islamic plant ash glass making (M. Frenken and Th. Rehren)
15:50 - 16:10	O34. Interdisciplinary study on glass ornaments discovered from Chinese port site of Shuo Gate, 10 <sup>th</sup> -13 <sup>th</sup> century CE (Q. Cheng, X.Y. Zhang, Th. Rehren, N.S. Li and G.H. Liang)
16:10 - 16:30	O35. Remembering Nikos Zacharias - Introducing me to the field of Archaeometry, new friends and fascinating glass problems (D. Möncke)
<b>16:30 - 17:50</b>	<b>POSTER SESSION II</b>
<b>17:50 - 19:30</b>	<b>SESSION 8: Digital applications</b> <i>Chairperson: V. Pouloupoulos</i>
17:50 - 18:10	O36. GIS technologies and systematic excavation projects: The case of the Sanctuary of Apollon at the Amyklaion near Sparta, Greece (N. Nenci, A. Chelioudaki-Vardi and S. Vlivos)
18:10 - 18:30	O37. Digital tools for enhanced management of archaeological excavation data (V.V. Panagiotidis, M. Kylafi and N. Zacharias)
18:30 - 18:50	O38. 3D geospatial platform and virtual tour application to visualize stable isotopic analysis data (D. Kyropoulou, P. Karalis, E. Dotsika, F. Rizou, I. Raptis, A. Drosou, D. Tzouvaras, A. Mazarakis Ainian and E. Kolofotia)
18:50 - 19:10	O39. Data fusion as a tool for the characterisation of degradation layers on monuments using multi-analytical techniques (D. Mitsos, A.G. Karydas, E. Palamara and V. Pouloupoulos)
19:10 - 19:30	O40. Advances in the study of Upper Palaeolithic engravings with the use of Confocal Microscopy and a 3D Profiler (J. Robitaille, L.-E. Meyering, S. Gaudzinski-Windheuser, P. Pettitt, O. Jöris and R. Kentridge)

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<b>Saturday, October 5</b>	
<b>09:00 - 10:40</b>	<b>SESSION 9: Pigments</b> <i>Chairperson: S. Boyatzis</i>
09:00 - 09:20	O41. Pigments and technical characteristics of Byzantine mural paintings from Eastern Crete: A diachronic overview of 8 <sup>th</sup> to the 16 <sup>th</sup> Centuries CE (Y. Zafer Helvacı, M. Gulmini, G. Chiari, T. Cavaleri, K. Zervaki and R. Giustetto)
09:20 - 09:40	O42. The mural painting's study at the Church of Saint Andrew in Peristera (15 <sup>th</sup> -19 <sup>th</sup> century), Thessaloniki, Greece (S. Vivdenko, M. Tsiapali, A. Vasileiadou, T. Stamkopoulos Protopresbyter and N. Zacharias)
09:40 - 10:00	O43. Seeking the unseen: A non-destructive investigation of an overpainted panel painting (N.V. Nikolaidou, A. Asvestas, A. Kaminari, T. Panou, A. Sampatakos, D.F. Anagnostopoulos, A.G. Alexopoulou and G.P. Mastrotheodoros)
10:00 - 10:20	O44. An archaeometric study of smalt pigments in cultural heritage – Production, characterizations and uses (E.F. Kougka, C. Miguel, M. Larsoon, S. Bottura Scardina and A. Fialho Conde)
10:20 - 10:40	O45. Infrared photography for documentation and analysis of body painting and tattooing on pre-Hispanic mummified human remains (J. Bąk)
<b>10:40 - 11:00</b>	<b>Coffee Break</b>
<b>11:00 - 12:20</b>	<b>SESSION 10: Dating</b> <i>Chairperson: I. Liritzis</i>
11:00 - 11:20	O46. Refinement of calibration for OHD using long-term low temperature hydrated samples from world obsidian quarries and archaeological sites (I. Liritzis, I. Andronache and C.M. Stevenson)
11:20 - 11:40	O47. Electron Spin Resonance signals in lime mortars: Assessment of their suitability for ESR dating (Z. Kabacińska and D. Michalska)
11:40 - 12:00	O48. Portable Optically Stimulated Luminescence as a tool for archaeological stratigraphy in Greece (D. Fallu)
12:00 - 12:20	O49. Obsidian hydration and luminescence (TL/OSL/IRSL) ages of archaeological interest from Greece and Turkey; an obvious hiatus within the 4 <sup>th</sup> millennium BC (A. Vafiadou, N. Laskaris and G.S. Polymeris)
<b>12:20 - 13:20</b>	<b>SESSION 11: Building materials</b> <i>Chairperson: I. Iliopoulos</i>
12:20 - 12:40	O50. Exploring the Life Cycle of white marble artefacts: From quarrying through production, usage to provenance studies and digital archiving (V. Anevlavi, K. Burkhart, P. Fragnoli, W. Prochaska, H. Schwaiger and M. Welte)
12:40 - 13:00	O51. Mosaic floors from a Roman Villa in the city of Chalkis, Euboea. First results on material identification and provenance of some stone tesserae (E. Mantzana, E. Zimi, F. Pololi, G. Kageli and I. Iliopoulos)
13:00 - 13:20	O52. Technological and provenance investigation of 3rd century BCE plasters from the oldest Basilica of Tusculum (Italy) (E. Gliozzo and A. Pizzo)
<b>13:20 - 14:00</b>	<b>Closing Remarks</b>

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## Poster Session I

- P1. SALEM: A complete pipeline for Isotopic Analysis data (E. Ganiatsou and C. Papageorgopoulou)
- P2. Diet and migration of people in Late Bronze Age at the North-Western Crimea region through the stable isotopes ( $\delta^{13}\text{C}$ ,  $\delta^{15}\text{N}$ ,  $^{87}\text{Sr}/^{86}\text{Sr}$ ) in the bones (M. Kulkova and M. Kashuba)
- P3. The Late Bronze Age population of the Cave of Lakes, Peloponnese: An anthropological, palaeogenetic and palaeodietary study (S. Katsarou, A. Aidonis, C. Kakasa, E. Ganiatsou, A. Souleles, L. Winkelbach, J. Blocher, J. Burger and C. Papageorgopoulou)
- P4. Archontiko during the Iron Age and the Early Archaic Period: Daily life, health and diet (C. Kakasa, A. Aidonis, E. Ganiatsou, P. Bantavanou, V. Saripanidi, A. Chrysostomou, P. Chrysostomou and C. Papageorgopoulou)
- P5. Preliminary results of FTIR analysis of selected finds from the female burial of Episkopy in Sikinos, Greece (S. Boyatzis, P. Loukopoulou, D. Athanasoulis and M. Konioti)
- P6. Phosphorus analysis of soil samples from Shikarpur: Investigating human activity layers (G. Prabhu and S. Channarayapatna)
- P7. Playing with dirt: A geoarchaeological study of clay and tempering materials from East Crete (Greece) (A. Tsoupra, P. Barrulas, E. Nodarou, P. Moita and J. Mirao)
- P8. Neolithic pottery from Ekşi Höyük in the Upper Menderes Basin in Western Anatolia: An archaeometric investigation of raw material sourcing and manufacturing processes (B. Semiz, M. Kibaroglu and F. Dedeoglu-Konakci)
- P9. Insights into the technological features of the Cucuteni pottery identified at Răuceşti (Neamţ County, Eastern Romania) (F. Măţău, A.-L. Vasiliu, L. Ursu, M. Pintilei, O. Chişcan, V. Diaconu and A. Stancu)
- P10. Investigating raw materials and clay recipes for Bronze Age ceramic production on the Eastern Adriatic coast – Multianalytical approach (N. Neral, A. Kudelić and P. Quinn)
- P11. Production and distribution of Late Bronze Age Black Lustrous wheel-made Ware (BLW) in the Eastern Mediterranean: An archaeometric perspective (M. Kibaroglu, E. Kozal, L. Crewe, M. Martin, I. Hein, P. Monien and C. Bergoffen)
- P12. Oil lamps from La Fonteta and Peña Negra in the Lower Segura Region (Alicante, Spain). A comparative study (M. Del Pino Curbelo, A.I. Moyano Cerrato, E. López Rosendo, A.J. Lorrio and M. Torres Ortiz)
- P13. Ydria Frankenstein: Archaeometric analysis of a fragmented Greek vase (I. Głuszek, J. Michniewicz and M. Krueger)
- P14. Archaeometric study of Classical and Hellenistic pottery from the ancient city of Akrae (Lithovouni), Aetolia, Western Greece (P. Megalovasilis, V. Xanthopoulou, A. Georgiadi, S. Tsoumari and I. Iliopoulos)
- P15. A red figure pelike of kerch type from the Archaeological Museum of Thessaloniki, archaeometrical investigation and conservation (P. Veleni, V. Michalopoulou, A. Sofianopoulou and S. Vivdenko)
- P16. Past practices through new technologies: The case of the Roman kilns in Patras (N. Kougia, H. Simoni and I. Iliopoulos)
- P17. Physico-chemical investigations on Medieval ceramic finds from the Western Black Sea Coast (R. Bugoi, C. Talmaţchi, C. Haită, D. Ceccato and A.-M. Banici)

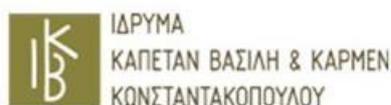
- P18. Determination of firing temperature and its effect on mineral composition of ancient Jorjān's golden glazed ceramics by new analytical techniques (P. Soleimani, A. Mohtasham and S. Shadkam)
- P19. Islamic glazed ceramic from Mértola: An archaeometric study of ceramic pastes and glazed decorations (M. Beltrame, J. Mirão and S. Gomez)
- P20. Archaeometric investigation of terracotta figurines from ancient Acanthos, Chalcidice (S. Vivdenko, E. Trakosopoulou-Salakidou, V. Michalopoulou, A. Vasileiadou and L. Malletzidou)
- P21. A wood carved-painted chest from Epirus: Analysis prior to conservation (A. Mbellou, C. Karydis and S. Boyatzis)
- P22. Study and reproduction of the "Hermeneia of the art of painting" varnish recipes (R. Pseftogianni, A. Sampatakos, S. Boyatzis and G.P. Mastrotheodoros)

## Poster Session II

- P23. Sculpting the Coastline: Precise characterisation of beachrock formations in Southeastern Crete (N.C. Andriopoulou, G.S. Polymeris, K.C. Stamoulis, M. Schöbel, G.E. Christidis, S. Papadakis, A. Novikova and N. Papadopoulos)
- P24. Radiocarbon dating of a hearth layer beneath the Minoan eruption deposits at Akrotiri, Santorini (K. Theodorakopoulou, M. Ghilardi, C.D Athanassas and C. Delhon)
- P25. From Andania to Oichalia. Archaeometry and archaeological research in the Upper Messenia (S.A. Fritzilas)
- P26. Dating by luminescence of ancient megalithic stones, buildings and constructions in Mani Peninsula: A literature review (E. Karampasi, V.V. Panagiotidis and N. Zacharias)
- P27. Innovative applications of Reflectance Transformation Imaging (RTI) in archaeological use-wear analysis (J. Robitaille)
- P28. Towards fiber identification of artifacts using a deep learning approach (E. Nerantzis, E. Kyrtzopoulou, L. Malletzidou, N.C. Tsirliganis and N.A. Kazakis)
- P29. Advancements in archaeology: The transformative role of 3D technologies in Cultural Heritage (D. Chytiri, V.V. Panagiotidis and G. Rigas)
- P30. Enhancing the study and sharing of Cultural Heritage through 3D Structured Light Scanning technology (V. Tatsona, V.V. Panagiotidis and D. Vachaviolos)
- P31. 3D laser scanning and UAVs: The Islet of Klissova and the Church of Agia Triada (A. Papoutsaki, A. Kompoti, A. Kazolias and V.V. Panagiotidis)
- P32. The Greek-Albanian Archaeological Project on the islet of Maligrad in the Great Prespa Lake through the modern technology of the 3D models representation (S. Oikonomidis, A. Bunguri, P. Kaplanis, N. Karagiannis P. Lera, A. Papayiannis, A. Skarmintzos, T. Akis, A. Vomvyras and D. Vomvyras)
- P33. 3D Scanning and 3D Printing: Ιχθυοπινάκιο "Fishbowl platter" replica (N. Morales-Glenn, G. Rigas and V.V. Panagiotidis)
- P34. Utilizing photogrammetry and 3D printing to restore missing fragments of ancient pottery (N. Skoutaridis and V.V. Panagiotidis)
- P35. Developing a Java-based software tool for archaeological data analysis and visualization in museums and heritage sites (Y. Elreweny and R. Shaheen)

- P36. Mystery of sandy Pylos: Crafting an immersive escape room adventure in a web-based game around Voidokoilia (L.A. Angelopoulou, M. Kouri and V.V. Panagiotidis)
- P37. Transforming a house unto an art gallery (G.N. Bekiari and V. Pouloupoulos)
- P38. Culture and tourism, the problems in Greece. Sustainable development of museums and sustainability of digital museums in smart cities (V.G. Argirou and D.D. Vergados)
- P39. Evaluation of success rate of ERT technique in identification of an ancient tomb. An application on Kastas Hill, in North Greece (P.G. Stephanopoulos and St.P. Papamarinopoulos)
- P40. Degraded Mycenaean vitreous artifacts safe taxonomy: A handbook (A. Oikonomou and M. Kaparou)
- P41. Chemical characterization of glass of the core-formed vessels from the north Black Sea region (based on the collection of the state historical museum in Moscow) (O. Rummyantseva, G. Lomtadze and D. Zhuravlev)
- P42. Investigating the chemical composition of glass bracelets from Mersin-Yumuktepe (10<sup>th</sup> to 13<sup>th</sup> century A.D.) (Ö. Ormanci, M.Z. Atasayar, G. Köroğlu and E.Ö. Özdamar)
- P43. Material remains of the Palace of Mystras: Craftsmanship, trade and diplomatic gifts (E. Palamara, V. Valantou and V.V. Panagiotidis)
- P44. Phaleron Delta cemetery, Greece: Conservation and corrosion of a bronze lebes (Aik. Panagopoulou and E. Filippaki)
- P45. XRF analyses on Greek and Roman copper-based coins from Histria (Romania) (D. Cristea Stan, A. Vilcu and A.-C. Țârlea)
- P46. Frankish iron artifacts from Glarentza: Preliminary results using handheld Raman and XRPD for analyzing ancient oxidized iron (G. Logothetou, N. Nerantzis and V. Pouloupoulos)
- P47. Historical gap fillings on archaeological metals – Building a knowledge repository on the history of restoration. Analysis of materials and classification of techniques from the 19<sup>th</sup> century (T. Marchenko and A. Jeberien)
- P48. Developing the understanding of hidden Cultural Heritage via 3D Light Scanning technology: The case of a golden Ottoman coin found in Messenia's Vlachopoulo (G. Rigas, N. Nerantzis and N. Zacharias)

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