

38th International Symposium on Archaeometry

Tampa, May 10-14, 2010

PROGRAM OUTLINE

Sunday, May 9

16:00 - 19:00 Registration
19:00 Welcome

Monday, May 10

8:00 Registration Desk Opens
8:30 - 8:55 Opening ceremony
8:55 - 10:20 **Session: Stone, Plaster and Pigments** 1-4
Convenor: Yannis Maniatis
10:20 - 10:50 *Coffee Break*
10:50 - 12:30 **Session: Stone, Plaster and Pigments (continued)** 5-9
12:30 - 13:45 *Lunch*
13:45 - 14:45 **Poster Session 1a**
1-38: Ceramics and Glazes
39-54: Glass and Vitreous Materials
55-59: Human-Environment Interactions
60-70: Integrated Site Studies
71-96: Metals and Metallurgical Ceramics (Technology & Provenance)
14:45 - 15:45 **Session: Stone, Plaster and Pigments (continued)** 10-12
15:45 - 16:15 *Coffee Break*
16:15 - 17:15 **Session: Stone, Plaster and Pigments (continued)** 13-15
17:15 - 18:20 **Session: Field Archaeology** 16-18
Convenors: Luis Barba & Robert Sternberg
19:30 **Opening Party at Busch Gardens**

Tuesday, May 11

8:30 - 11:15 **Session: Dating Methods** 19-23
Convenor: Marco Martini
10:15 - 10:45 *Coffee Break*
10:45 - 11:25 **Session: Dating Methods (continued)** 24-25
11:25 - 12:30 **Session: Metals and Metallurgical Ceramics** 26-28
Convenor: David Killick
12:30 - 13:45 *Lunch*
13:15 - 14:15 Open meeting of International Association for Obsidian Studies (MSC 2706)
13:45 - 14:45 **Poster Session 1b**
1-38: Ceramics and Glazes
39-54: Glass and Vitreous Materials
55-59: Human-Environment Interactions
60-70: Integrated Site Studies
71-96: Metals and Metallurgical Ceramics (Technology & Provenance)
14:45 - 15:45 **Session: Metals and Metallurgical Ceramics (continued)** 29-31
15:45 - 16:15 *Coffee Break*
16:15 - 17:55 **Session: Metals and Metallurgical Ceramics (continued)** 32-36
17:55 Presentations for 2012 venue

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Wednesday, May 12

8:30 - 10:15	Session: <i>Bioarchaeology</i> Convenor: Henk Kars	37-41
10:15 - 10:45	<i>Coffee Break</i>	
10:45 - 12:05	Session: <i>Bioarchaeology</i>	42-45
12:05 - 13:15	<i>Lunch</i>	
13:15 - 19:00	<i>Crystal River Archaeological Site</i>	

Thursday, May 13

8:30 - 10:35	Special Session: <i>Isotopic Analysis of Human Skeletal Remains</i> Convenor: Robert H. Tykot	46-51
10:35 - 11:05	<i>Coffee Break</i>	
11:05 - 12:30	Session: <i>Ceramics and Glazes</i> Convenor: Josefina Perez-Arantegui	52-55
12:30 - 13:45	<i>Lunch</i>	
13:45 - 14:45	Poster Session 2a 97-102: Field Archaeology 103-119: Dating 120-153: Stone, Plaster and Pigments (Technology & Provenance) 154-169: Bioarchaeology 170-186: Isotopic Analysis of Human Skeletal Remains	
14:45 - 15:45	Session: <i>Ceramics and Glazes</i> (continued)	56-58
15:45 - 16:15	<i>Coffee Break</i>	
16:15 - 18:15	Session: <i>Ceramics and Glazes</i> (continued)	59-64
18:15 - 17:15	Open meeting of the Society for Archaeological Sciences (MSC 2706)	
20:00 - 23:00	<i>Optional Social Dinner at Columbia Restaurant, Ybor City</i>	

Friday, May 14

9:00 - 10:25	Session: <i>Glass and Vitreous Materials</i> Convenor: Josefina Perez-Arantegui	65-68
10:25 - 10:55	<i>Coffee Break</i>	
10:55 - 11:55	Session: <i>Glass and Vitreous Materials</i> (continued)	69-71
11:55 - 13:10	<i>Lunch</i>	
13:10 - 14:10	Poster Session 2b 97-102: Field Archaeology 103-119: Dating 120-153: Stone, Plaster and Pigments (Technology & Provenance) 154-169: Bioarchaeology 170-186: Isotopic Analysis of Human Skeletal Remains	
14:10 - 15:15	Session: <i>Human-Environment Interactions</i> Convenor: A. Mark Pollard	71-74
15:15 - 15:45	<i>Coffee Break</i>	
15:45 - 17:30	Session: <i>Integrated Site Studies</i> Convenor: Patrick Degryse	75-79
17:30	Prizes and Closing Ceremony	

38th International Symposium on Archaeometry

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DETAILED PROGRAM

Monday, May 10

8:00 Registration Desk Opens

8:30 - 8:55 Opening ceremony
Dr. Tapas Das, Associate Provost, University of South Florida
Dr. Brent Weisman, Chair, Department of Anthropology, USF

SESSION: Stone, Plaster and Pigments (Technology & Provenance)
Convenor: Yannis Maniatis

8:55 - 9:00 Chairperson: Yannis Maniatis
Introduction to the session

9:00 - 9:20 1. Rock art paintings in Colombia: Analysis of pigments, implemented techniques and taphonomic processes
Trujillo, Judith

9:20 - 9:40 2. Characterization of archaeological ochre, application to Middle Stone Age South African sites
Dayet, Laure; Daniel, Floréal; Guibert, Pierre; Texier, Pierre-Jean

9:40 - 10:00 3. Materials and colored decorations in the abbey-church of Cluny III: Study of polychromies of the Romanesque portal (early 12th century)
Castandet, Stephanie; Callet, Patrick; Rollier-Hanselmann, Juliette

10:00 - 10:20 4. A multi-analytical approach for the characterization of the oldest pictorial cycle in the XII century monastery Santa Maria delle Cerrate
de Benedetto, Giuseppe E.; Rizzo, Daniela; Savino, Antonella; Cassiano, Antonio; Minerva, Brizia

10:20 - 10:50 **Coffee Break**

SESSION: Stone, Plaster and Pigments (continued)
Chairperson: Steven Shackley

10:50 - 11:10 5. Microanalysis of clay and iron-based pigments in Mid-European paints: Tracing of their provenance
Hradil, David; Hradilová, Janka; Bezdička, Petr

11:10 - 11:30 6. Wall paintings at the Temple Of Venus (Pompeii): Pigment production recipes and painting techniques
Piovesan, Rebecca; Siddall, Ruth; Mazzoli, Claudio; Maritan, Lara; Nodari, Luca

- 11:30 - 11:50 7. Elemental and mineralogical characterization of aboriginal Australian ochre for determination of archaeological use and exchange
Popelka-Filcoff, Rachel S.; Lenehan, Claire; Quinton, Jamie; Pring, Allan; Durham, Andrew; Jones, Philip; Walshe, Keryn
- 11:50 - 12:10 8. The purple dyes of Masada: An HPLC-PDA multi-component study of Roman period colors
Koren, Zvi C.
- 12:10 - 12:30 9. Characterization of Roman plasters and mortars at the Villa Silin, Libya
Abd El Salam, Safaa; Maniatis, Yannis
- 12:30 13:45 **Lunch**
- 13:45 14:45 **POSTER SESSION 1a**
1-38: Ceramics and Glazes
39-54: Glass and Vitreous Materials
55-59: Human-Environment Interactions
60-70: Integrated Site Studies
71-96: Metals and Metallurgical Ceramics (Technology & Provenance)
- SESSION: Stone, Plaster and Pigments (continued)**
Chairperson: Jeff Speakman
- 14:45 - 15:05 10. Inclusion fluid chemistry: An alternative method for tracing the origin of white marbles
Prochaska, Walter; Grillo, Silvana Maria
- 15:05 - 15:25 11. A comparison of trace element methods used to source chert from Southern Baffin Island, Canada.
Hamilton, Anne; Milne, S. Brooke; Fayek, Mostafa
- 15:25 - 15:45 12. Turquoise provenance studies in the greater Southwest using hydrogen and copper stable isotopes
Hull, Sharon K.; Fayek, Mostafa
- 15:45 - 16:15 **Coffee Break**
- SESSION: Stone, Plaster and Pigments (continued)**
Chairperson: Tristan Carter
- 16:15 - 16:35 13. Insight into Khmer sculptural material: Evidence of stone usage in Cambodia from the 6th to 15th centuries
Carò, Federico; Douglas, Janet; Fisher, Christian; Im, Sokrithy
- 16:35 - 16:55 14. Geochemical characteristics of obsidian sources of the South Caucasus and provenance of Middle Palaeolithic to Early Iron Age obsidian artefacts
Meliksetian, Khachatur; Pernicka, Ernst; Badalyan, Ruben; Schifer, Thorsten

- 16:55 - 17:15 15. The obsidian sources in Peru still reveal surprises
Wasilewski, Michal; Glascock, Michael

SESSION: Field Archaeology

Convenors: Luis Barba & Robert Sternberg

- 17:15 - 17:20 Chairperson: Robert Sternberg
Introduction to the session

- 17:20 - 17:40 16. The application of airborne LiDAR to an ancient Maya landscape
Chase, Arlen F.; Chase, Diane; Weishampel, John

- 17:40 - 18:00 17. Magnetic prospecting of the Roman military camp at Septimer Pass
(Switzerland)
*Fassbinder, Jörg W.E.; Sternberg, Rob; Zanier, Werner; Ebner, Doris;
Rageth, Jürg*

- 18:00 - 18:20 18. A class III, portable X-ray fluorescence (pXRF) comparison study of
metal archaeochemical values with p-values from two, Late Classic sites in
the El Paraiso Valley, Copan, Honduras
*Lundin, Richard J.; Canuto, Marcello; Bell, Ellen; Charton, James;
Brackett, Claudia; Younan, Eilbra*

19:00 **Opening Party at Busch Gardens**

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Tuesday, May 11

SESSION: *Dating Methods*

Convenor: Marco Martini

Chairperson: Marco Martini

8:30 - 8:35

Introduction to the session

8:35 - 8:55

19. New radiocarbon evidence for the Late Neolithic – Early Bronze Age transition in southeast Europe

Maniatis, Yannis; Tsirtsoni, Zoi; Oberlin, Christine; Darcque, Pascal; Koukouli-Chryssanthaki, Chaido; Malamidou, Dimitra; Papadopoulos, Stratis; Siros, Tasos

8:55 - 9:15

20. Radiocarbon dating of the Thera eruption: Problems inherent and problems correctable

Wiener, Malcolm H.; Earle, Jason

9:15 - 9:35

21. Radiocarbon chronology of Andean Khipus

Cherkinsky, Alexander; Urton, Gary

9:35 - 9:55

22. Characterization of a new protocol for mortar dating: 13C and 14C evidences

Lubritto, Carmine; Passariello, Isabella; Marzaioli, Fabio; Capano, Manuela; Terrasi, Filippo

9:55 - 10:15

23. Historical mortar: Luminescence from fine-grain quartz

Gueli, Anna Maria; Stella, Giuseppe; Burrafato, Giuseppe; Fontana, Dorotea; Ristuccia, Gloria; Troja, Sebastiano Olindo; Zuccarello, Agnese Rita

10:15 - 10:45

Coffee Break

SESSION: *Dating Methods session (continued)*

Chairperson:

10:45 - 11:05

24. Luminescence dating of archaeology from the last 500 years in South Africa

Rosenstein, Dana Drake; Feathers, James

11:05 - 11:25

25. A multi-disciplinary approach of the chronology of early medieval constructions: The case study of St Irenee's church, Lyon (France)

Bouvier, Armel; Guibert, Pierre; Sapin, Christian; Reynaud, Jean-François

SESSION: *Metals and Metallurgical Ceramics (Technology & Provenance)*

Convenor: David Killick

- 11:25 - 11:30 Chairperson: David Killick
Introduction to the session
- 11:30 - 11:50 26. Chalcolithic arsenical copper Smelting in Kolubara, western Serbia
Radivojevic, Miljana; Rehren, Thilo; Blagojevic, Mirjana
- 11:50 - 12:10 27. Towards assessing the technological role of the “perforated furnaces” in Early Bronze Age Siphnian (Aegean) lead-silver production
Bassiakos, Yannis; Georgakopoulou, Myrto; Papadpopoulou, Zozi
- 12:10 - 12:30 28. Metallurgy during the 3rd Millennium BC in Upper Mesopotamia: A case study from Tell Chuera and Tell Raqa’i
Franke, Kristina A.
- 12:30 - 13:45 **Lunch**
- 13:15 - 14:15 Open meeting of International Association for Obsidian Studies (MSC 2706)
- 13:45 - 14:45 **POSTER SESSION 1b**
1-38: Ceramics and Glazes
39-54: Glass and Vitreous Materials
55-59: Human-Environment Interactions
60-70: Integrated Site Studies
71-96: Metals and Metallurgical Ceramics (Technology & Provenance)

SESSION: *Metals and Metallurgical Ceramics (continued)*

Chairperson: Thilo Rehren

- 14:45 - 15:05 29. Gold jewelry in Ancient Egypt: Gold origin and polychromy, wire, granulation, and soldering techniques
Guerra, Maria Filomena; Troalen, Lore; Tate, James; Manley, Bill
- 15:05 - 15:25 30. Native Copper in the Prehistory of Northeastern North America: Provenance Studies Using Lead Isotope Analysis
Cattin, Florence; Gauthier, Gilles; Véron, Alain; Poirier, André; Burke, Adrian
- 15:25 - 15:45 31. Indigenous silver production at Lake Titicaca, Peru, from 1900 BP to 400 BP
Rehren, Thilo; Schultze, Carol
- 15:45 - 16:15 **Coffee Break**

SESSION: *Metals and Metallurgical Ceramics* (continued)

Chairperson: Maria Filomena Guerra

- 16:15 - 16:35 32. Silver coinage, provenance and trade between Africa and Europe during the Almohad Empire (13th century A.D.): Archaeometric characterization of a dirhams' hoard excavated in Seville (south-west Spain)
Hunt-Ortiz, Mark A.; García Rivero, Daniel; Montero Ruiz, Ignacio; Valencia Rodríguez, Rafael; Oliva Alonso, Diego
- 16:35 - 16:55 33. Metallic encounters in Cuba: The technology, exchange and meaning of metal ornaments before and after Columbus
Martinón-Torres, Marcos; Valcarcel Rojas, Roberto; Guerra, Maria Filomena
- 16:55 - 17:15 34. Zinc production in Chongqing, southwest China, during the Ming dynasty(1368-1644): A case study at Miaobeihou site
Zhou, Wenli; Chen, Jianli; Liu, Haiwang; Yuan, Dongshan; Martinon-Torres, Marcos
- 17:15 - 17:35 35. The apparition and the utilization of the indirect process of iron production in the Mosan region: A new perception given by the archaeometallurgical study of ferrous reinforcements in medieval frames
Pagès, Gaspard; Mertens, Anne; Maggi, Christophe; Dillmann, Philippe; Hoffsummer, Patrick; Mathis, François
- 17:35 - 17:55 36. A new multivariate approach for identifying provenance: The trading of medieval ferrous products in Ariège (French Pyrenees) and the supply of construction iron used in Popes' Palace in Avignon
Leroy, Stéphanie; Dillmann, Philippe; Cohen, Serge; Gratuze, Bernard; Tereygeol, Florian; Verna, Catherine
- 17:55 *Presentations for 2012 venue*

Evening Event

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Wednesday, May 12

SESSION: *Bioarchaeology*

Convenor: **Henk Kars**

Chairperson: Henk Kars

- 8:30 - 8:35 *Introduction to the session*
- 8:35 - 8:55 37. Human bioarchaeological analyses at 3rd millennium BC Shahr-i Sokhta, Iran: Palaeopathology, dental histology and isotopic analyses of ancient human hair
Lorentz, Kirsi O.
- 8:55 - 9:15 38. Investigation of ancient noodles, cakes, and millet in the Subeixi site, Xinjiang, China, and their palaeodiet implications
Jiang, Hong'en; Gong, Yiwen; Yang, Yimin; Enguo, Lv; Wang, Changsui
- 9:15 - 9:35 39. Provenance of ancient textiles: A new method provides information on trading in the past
Frei, Karin Margarita
- 9:35 - 9:55 40. MicroPIXE/PIGE versus archaeozoology: Is there a potential to establish chemical markers for identification of ancient osseous industry?
Reiche, Ina; Müller, Katharina
- 9:55 - 10:15 41. Regional and chronological trends in milk use in prehistoric Europe traced through molecular and stable carbon isotope signatures of fatty acyl lipids preserved in pottery vessels
Salque, Mélanie; Evershed, Richard P.

10:15 - 10:45 ***Coffee Break***

SESSION: *Bioarchaeology* (continued)

Chairperson: Janet Montgomery

- 10:45 - 11:05 42. Microscale sealed vessel (MSSV) pyrolysis for the analysis of minimal quantities of ancient Egyptian remains: New insight into the mummification procedure
McCreesh, Natalie C.; Gize, Andrew; David, Rosalie
- 11:05 - 11:25 43. Paleoproteomics vs. aDNA: New perspectives in biomolecular paleopathology of Mycobacterium tuberculosis
Mark, Laszlo
- 11:25 - 11:45 44. Micromorphology vs. DNA: The controversial case of an herbivore coprolite containing human DNA at Paisley cave (Oregon)
Berna, Francesco; Goldberg, Paul; Macphail, Rich.; Poinar, H.

11:45 - 12:05 45. Regional variations in biosphere strontium isotope ratios are related to underlying geology: towards the high resolution characterization of biosphere proxies for archaeological applications
Warham, Joseph O.; Montgomery, Janet; Evans, Jane; Ander, Louise; Cotton, David

12:05 - 13:15 ***Lunch***

13:15 - 19:00 ***Trip to Crystal River Archaeological Site***

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Thursday, May 13

SPECIAL SESSION: *Isotopic Analysis of Human Skeletal Remains*

Convenor: Robert H. Tykot

Chairperson: Robert H. Tykot

8:30 - 8:35

Introduction to the session

8:35 - 8:55

46. With eyes toward the sea: People of the Canaveral area in Florida, USA
Tuross, Noreen C.

8:55 - 9:15

47. 'The end of the world?': Famine, plague and climate change in 14th century London
Mueller, Victoria

9:15 - 9:35

48. Delving deeper into the diet of ancient humans via stable nitrogen isotope analysis of bone collagen amino acids.
Styring, Amy K.; Sealy, Judith; Evershed, Richard

9:35 - 9:55

49. Optimising the model for converting oxygen isotope values in bioapatite to inferred drinking-water values
Chenery, Carolyn A.; Evans, Jane

9:55 - 10:15

50. The use of strontium and other isotope systems to determine the geographic origins of humans
Burton, James H.; Price, T. Douglas

10:15 - 10:35

51. Of chariots and kings: Isotope analysis and the origins of the Arras culture of Yorkshire
Montgomery, Janet; Jay, Mandy; Evans, Jane; Towers, Jacqueline

10:35 - 11:05

Coffee Break

SESSION: *Ceramics and Glazes (Technology & Provenance)*

Convenor: Josefina Perez-Arategui

Chairperson: Josefina Perez-Arategui

11:05 - 11:10

Introduction to the session

11:10 - 11:30

52. On finding diagnostic elements to sort ceramic chemical groups
Hancock, Ron; Hughes, Michael; Michelaki, Kostalena

11:30 - 11:50

53. Firing temperature of pottery collected from the area of ancient Mesopotamia, Turkey, using luminescence techniques
Polymeris, George S.; Kiyak, Nafiye; Gökgöl, Tuba; Canel, Timur; Kitis, George

- 11:50 - 12:10 54. Categorising the Simple Ware, the petrography of an ophiolitic and fossiliferous local pottery fabric from Tell Atchana, a second millennium urban centre in southern Turkey
Groom, Simon D.; Cockrell, Bryan; Bown, Paul
- 12:10 - 12:30 55. Provenance study on Bronze Age pottery from Kaman-Kalehöyük, Turkey and its neighborhood by means of petrological methods
Bong, Willy S.K.; Matsumura, Kimiyoshi; Yokoyama, Kazumi; Nakai, Izumi
- 12:30 - 13:45 **Lunch**
- 13:45 - 14:45 **POSTER SESSION 2a**
97-102: Field Archaeology
103-119: Dating
120-153: Stone, Plaster and Pigments (Technology & Provenance)
154-169: Bioarchaeology
170-186: Isotopic Analysis of Human Skeletal Remains
- SESSION: Ceramics and Glazes (continued)**
Chairperson: Jaume Buxeda i Garrigós
- 14:45 - 15:05 56. A chemical and mineralogical investigation of Late Bronze Age Nuzi Ware from the Near East
Erb-Satullo, Nathaniel L.; Eremin, Katherine; Shortland, Andrew
- 15:05 - 15:25 57. Material evidence for the use of Attic white-ground lekythoi in cremation burials
Walton, Marc S.; Svododa, Marie; Mehta, Apurva; Trentelman, Karen
- 15:25 - 15:45 58. Glazed pottery surfaces under the microscope: Which criteria to decide about archaeological and modern items
Zacharias, Nikolaos V.; Mastrotheodoros, Georgios; Katsiotis, Marios; Laskaris, Nikolaos
- 15:45 - 16:15 **Coffee Break**
- SESSION: Ceramics and Glazes (continued)**
Chairperson: Ron Hancock
- 16:15 - 16:35 59. The amphorae from the Roman fish-salted factory of the Casa do Governador da Torre de Belém (Lisboa, Portugal): Inferences on their provenance.
Dias, M. Isabel; Prudencio, M.I.; Filipe, I.; Fabião, C.; Marques, R.; Franco, D.
- 16:35 - 16:55 60. Technology, production and distribution of Terminal Classic moulded-carved vases in central Maya Lowlands
Ting, Carmen; Helmke, Christophe

- 16:55 - 17:15 61. Santa María de la Antigua del Darién (Colombia): A first archaeometric approach to the material culture
Buxeda i Garrigós, Jaume; Madrid i Fernández, Marisol; Ferrer, Samantha G.; Alzate Gallego, Luz Adriana
- 17:15 - 17:35 62. The earliest high-fired glazed ceramics in China: Scientific studies of the proto-porcelains from Zhejiang during the Shang and Zhou periods (c. 1,700 – 221 BC)
Yin, Min
- 17:35 - 17:55 63. The enduring secret of Meissen porcelain
Neelmeijer, Christian; Pietsch, Ulrich; Ulbricht, Heike
- 17:55 - 18:15 64. The Classical-Hellenistic ceramic assemblages on the territory of ancient Sagalassos (SW Turkey): An archaeometric approach
Braekmans, Dennis; Degryse, Patrick; Poblome, Jeroen; Neyt, Bert
- 18:15 - 17:15 Open meeting of the Society for Archaeological Sciences (MSC 2706)
- 20:00 - 23:00 ***Optional Social Dinner at Columbia Restaurant, Ybor City***

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Friday, May 14

SESSION: *Glass and Vitreous Materials (Technology & Provenance)*

Convenor: **Josefina Perez-Arantegui**

Chairperson: Josefina Perez-Arantegui

9:00 - 9:05

Introduction to the session

9:05 - 9:25

65. A database of Mediterranean sands: Provenancing primary glass production in antiquity

Degryse, Patrick; Brems, Dieter; Boyen, Sara; Ganio, Monica

9:25 - 9:45

66. Compositional analyses of glass from Mycenaean Greece: Alkali variation and technology differentiation

Nikita, Kalliopi

9:45 - 10:05

67. Glass-making in the Hellenistic world

Connolly, Philip J.; Rehren, Thilo

10:05 - 10:25

68. The black glass in the Roman empire: Compositions and recipes so far

Cagno, Simone; Van der Linden, Veerle; Schalm, Olivier; Janssens, Koen; Cosyns, Peter; Nys, Karin

10:25 - 10:55

Coffee Break

SESSION: *Glazes and Vitreous Materials (continued)*

Chairperson: Ian Freestone

10:55 - 11:15

69. Geochemical investigation of medieval stained window glass, focusing on York Minster, UK

Freestone, Ian C.; Kunicki-Goldfinger, Jerzy; MacDonald, Iain; Ayers, Tim; Gilderdale-Scott, Heather

11:15 - 11:35

70. Coloring technologies in ancient south Asian glass: Transferred technologies or innovation?

Dussubieux, Laure; Blet-Lemarquand, Maryse; Gratuze, Bernard

11:35 - 11:55

71. Glass trade beads in Africa: Inference of provenance through lead and strontium isotopes and trace elements

Fenn, Thomas; Robertshaw, Peter; Wood, Marilee; Killick, David; Chesley, John; Ruiz, Joaquin

11:55 - 13:10

Lunch

13:10 - 14:10 **POSTER SESSION 2b**
97-102: Field Archaeology
103-119: Dating
120-153: Stone, Plaster and Pigments (Technology & Provenance)
154-169: Bioarchaeology
170-186: Isotopic Analysis of Human Skeletal Remains

SESSION: *Human-Environment Interactions*

Convenor: A. Mark Pollard

- Chairperson: A. Mark Pollard
Introduction to the session
- 14:10 - 14:15
- 14:15 - 14:35 72. GIS and climate modeling for the latest Pleistocene and Holocene
Cummings, Linda Scott; Varney, R.A.; Miller, Kay
- 14:35 - 14:55 73. Assessing terrestrial climate change in Britain and northern Europe during
Oxygen Isotope Stage 3 through analysis of stable light isotopes in
vertebrate teeth
*Wright, Deborah M.; Lee-Thorp, Julia; Stevens, Rhiannon; Donahue,
Randolph*
- 14:55 - 15:15 74. Satellite paleoecology: Investigating human-landscape interaction in
Oaxaca, Mexico
*Middleton, William D.; Joyce, Arthur; Goman, Michelle; Muelloer,
Raymond; Kerekes, John; Canham, Kelly*

15:15 15:45 ***Coffee Break***

SESSION: *Integrated Site Studies*

Convenor: Patrick Degryse

- Chairperson: Patrick Degryse
Introduction to the session
- 15:45 - 15:50
- 15:50 - 16:10 75. Cueva La Conga: Report on dating and characterization of the first known
painted cave in Nicaragua
Armitage, Ruth Ann; Baker, Suzanne; Li, Ran
- 16:10 - 16:30 76. Chemical analysis of soil in Santa Cruz Atizapan Archaeological Site using
pXRF and spot test
*Barba, Luis; Terreros, Martin; Lundin, Richard; Bracket, Claudia; Ortiz,
Agustin; Blancas, Jorge*
- 16:30 - 16:50 77. Prehistoric pigment characterisation of the Abri Pataud rock-shelter
(Dordogne, France)
*Beck, Lucile; Grégoire, Sylvain; Lebon, Matthieu; Chiotti, Laurent;
Nespoulet, Roland; Menu, Michel; Paillet, Patrick*

- 16:50 - 17:10 78. From natural substances to funeral rituals: Development of a multi-analytical approach
Deviese, Thibaut A.; Ribechini, Erika; Colombini, Maria Perla; Regert, Martine; Stuart, Barbara; Castex, Dominique; Farago-Sekeres, Bernard; Duday, Henri
- 17:10 - 17:30 79. A workshop for the craftsmen of king Canute?
Jouttijärvi, Arne
- 17:30 **Prizes and Closing Ceremony**

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POSTERS

Poster Session 1 Monday and Tuesday 13:45-14:45

1-38: Ceramics and Glazes
39-54: Glass and Vitreous Materials
55-59: Human-Environment Interactions
60-70: Integrated Site Studies
71-96: Metals and Metallurgical Ceramics (Technology & Provenance)

Poster Session 2 Thursday 13:45-14:45 and Friday 13:10-14:10

97-102: Field Archaeology
103-119: Dating
120-153: Stone, Plaster and Pigments (Technology & Provenance)
154-169: Bioarchaeology
170-186: Isotopic Analysis of Human Skeletal Remains

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Poster Session 1: Monday and Tuesday 13:45-14:45

Posters 1-38: Ceramics and Glazes

1. Data fusion and ceramics
Bell, Suzanne C.; Zhang, Xinya
2. Late Roman coarse wares productions identified at Santa Eulalia (Cagliari, Sardinia):
Archaeology and archaeometry
Cau i Ontiveros, Miguel Ángel; Tsantini, Evanthia; Sangiorgi, Silvia; Montana, Giuseppe; Santoro, Sara
3. The Domesday Book of Scottish redware pottery
Chenery, Simon R.; Haggarty, George
4. Pottery analysis of Bonampak, Chiapas, Mexico
Chung, Heajoo; Victoria, Alfredo; Tovalin, Alejandro
5. Epiclassic and Early Postclassic central Mexican pottery paint recipes as evidenced through PIXE analysis
Crider, Destiny
6. Application of instrumental neutron activation analysis for provenance study of ancient potteries and bricks from Buddhist sites of India
Das, Nadukuru L.; Dasari, K.B.; Acharya, R.; Reddy, A.V.R.
7. ICP-MS with adaptable chamber laser: Quantitative analysis of ceramic artifacts in the museum environment
Dussubieux, Laure; Golitko, Mark; Williams, Patrick Ryan; Cox, Richard
8. Application of QXRD and high resolution microscopy methods (AFM, PFM, CLSM) used for characterization of ancient ceramic matrices from 1300 B.C. (SW-Iran)
Emami, Mohammadamin
9. Transport jars for a global world: First steps towards their archaeological and archaeometric thorough understanding in Early Modern period
Ferrer, Samantha G.; Buxeda i Garrigós, Jaume; Iñáñez, Javier G.; Amores Carredano, Fernando; Beltrán de Heredia Berceiro, Julia
10. The combined use of petrography and petrology to investigate the inter-island pottery network in the Aeolian archipelago
Fragnoli, Pamela; Sara Tiziana, Levi; Brunelli, Daniele; Guadagnini, Giulia
11. Romita ware: Technological characterization of a hybrid colonial ceramic
Iñáñez, Javier G.; Molera, Judit; Pradell, Trinitat; Madrid i Fernandez, Marisol; Buxeda i Garrigós, Jaume; Speakman, Robert J.
12. Archaeometrical characterization of majolica ceramics from St. Augustine (Florida)
Iñáñez, Javier G.; Watters, Gifford J.; Deagan, Kathleen; Jimenez-Cano, Nadia; Glascock, Michael D.; Speakman, Robert J.
13. Potters and pigments: Preliminary technological assessment of pigment recipes of American majolica
Iñáñez, Javier G.; Madrid i Fernandez, Marisol; Molera, Judit; Speakman, Robert J.; Pradell, Trinitat
14. Reassessment of elemental concentration data of sediments from the western delta of the Nile River
Hancock, Ron; Michelaki, Kostalena
15. Sourcing 'Monagrillo' pottery, the earliest in Panama (4,500-3,200 B.P.): Data from petrography and portable X-ray fluorescence and their relevance to Circulation
Iizuka, Fumie

16. Production and distribution of pottery in a macro center of consumption: Valencina de la Concepción during III Millennium BCE.
Inácio, Nuno; Nocete, Francisco; Nieto, José Miguel; Sáez, Reinaldo; Bayona, Moisés; Daniel, Abril
17. Hellenistic period pottery production technology from Harabebezikan (Şanlıurfa/Turkey)
İssi, Ali; Kara, Alpagut; Alp, A. Oğuz
18. A detailed investigation into slip layers of Hellenistic ceramic wares from Dorylaion (Eskişehir-Turkey)
Kara, Alpagut; İssi, Ali; Raškovska, Aleksandra; Grupce, Orhideja; Mineva-Šukarova, Biljana
19. The chemical composition, raw material and pottery manufacture of Tating ware
Kulkova, Marianna; Plokhov, Alexey
20. WLXRF spectroscopy of Il Khanid luster pottery of Aveh
Lashkari, Arash; Shahidi, Hamid Khatib
21. First steps towards the systematization of Historical Basque pottery (14th to 17th centuries): Archaeometric characterization of majolica from Araba and Bizkaia
Madrid i Fernández, Marisol; Buxeda i Garrigós, Jaume; Escribano Ruíz, Sergio
22. Pottery production at Tayma (north-western Saudi Arabia)
Maritan, Lara; Mazzoli, Claudio; Giannetta, Mirko; Hausleiter, Arnulf
23. Clay sediments diversity in the Troad and the provenance of Troian pottery
Morales Merino, Carlos; Pernicka, Ernst; Balcazar, Miguel; Mucha, Hans-Joachim; Tagle, Roald; Espinosa, Manuel E.
24. Variable selection using Procrustes analysis with stopping rule
Munita, Casimiro S.; Oliveira, Paulo
25. Glass: Antique or new?
Neunteufel, Robert
26. Provenance of regional ceramics in Pisidia (SW-Turkey)
Neyt, Bert; Braekmans, Dennis; Degryse, Patrick; Elsen, Jan
27. Laser ablation-inductively coupled plasma-mass spectrometry: Using geochemical data to examine changes in pottery production patterns in the Prehispanic Philippines
Niziolek, Lisa C.
28. Secondary calcite in texture of pottery from Parse police, Parse, Iran
Noghani, Somayeh; Emami, Mohammadamin
29. Permeability of know-how in Timurid tile-making process: Archaeometric approach
Pacheco, Claire; Chapoulie, Rémy; Aucouturier, Marc; Dooryhee, Eric; Makariou, Sophie; Miroudo, Delphine
30. Non-destructive and micro-invasive techniques for cultural heritage diagnostics: A case-study of glazed tiles from Portuguese historical buildings
Prudêncio, Maria Isabel; Silva, Teresa Pena; Dias, Maria Isabel; Marques, José Gonçalves; Stanojev Pereira, Marco António; Figueiredo, Maria Ondina; Esteves, Lurdes; Albuquerque, Maria Beatriz; Botelho, Maria Luisa; Cabo Verde, Sandra Isabel; Trindade, Maria José; Burbidge, Christopher Ian; Marques, Rosa
31. From the raw material to the finished object: How museum artefacts can help to reconstruct manufacturing processes of 19th century Persian pottery
Reiche, Ina; Troalen, Lore; Röhrs, Stefan; Pretzel, Boris; Burgio, Lucia; Shah, Bhavesh; Tate, Jim; Martin, Graham; Voigt, Friederike
32. Lead isotope analyses on White Slip II sherds from Late Bronze Age sites in Cyprus (Hala Sultan Tekke, Sanidha) and Syria (Ugarit) and their potential raw material sources
Renon, Virginie; Coenaerts, Jan; Sauvage, Caroline; Mattielli, Nadine; Vanhaecke, Frank; Lorre, Christine; Rautman, Marcus; Nys, Karin; Claeys, Philippe
33. Ceramic composition and competition at Mayapán, the last Maya capital
Sanchez, Carmen G.
34. Iberian coarse wares and amphorae from the workshop of “El Cerro de las Balsas-Chinchorro” (Albufereta-Alicante)
Tsantini, Evanthia; Cau i Ontiveros, Miquel Ángel; Martínez i Ferras, Verónica; Rosser Limiñana, Pablo

35. Using non-destructive XRF analysis for sourcing of southeastern U.S. ceramics
Tykot, Robert H.; DuVernay, Jeffrey; White, Nancy; Cogswell, Kyle
36. Dwelling buildings of Torezk: Handicraft and trade settlement of XV c
Valiulina, Svetlana I.; Valiulina, Julia
37. Complex analysis of Near East glazed ceramics from Bilyar
Valiulina, Svetlana I.
38. Combined inductively coupled plasma mass spectrometry (ICP-MS) and cathodoluminescence (CL) in provenance study of ceramics
Zhang, Xinya; Bell, Suzanne; Hirshman, Amy

Posters 39-54: Glass and Vitreous Materials

39. Bronze Age-Early Iron Age glass from Sardinia and the Mediterranean glass trade: New archaeometric data
Angelini, Ivana; Nicola, Chiara; Bellintani, Paolo; Usai, Alessandro; Artioli, Gilberto
40. Study of VII-VIII century BC glass beads coming from Italy and from the Czech Republic
Arletti, Rossella; Henderson, Julian
41. Major element and Nd-Sr isotopic analysis of natron glass from Spain and Jordan
Boyen, Sara; Brems, Dieter; Ganio, Monica; Degryse, Patrick
42. Nd isotopic variation in Mediterranean sand deposits and its applicability as a tracer for raw materials used in ancient glass production
Brems, Dieter; Boyen, Sara; Ganio, Monica
43. Lighting in the abbey-church of Cluny III
Castandet, Stephanie; Callet, Patrick; Rollier-Hanselmann, Juliette
44. Application of microanalysis in the historical glass in Thailand
Dararutana, Pisutti; Thongkam, Yatima; Won-in, Krit; Pongkrapan, Sorapong; Wathanakul, Pornsawat; Sirikulrat, Narin
45. Amulets from the Carthage Tophet
Eremin, Katherine; Degryse, Patrick; Erb Satullo, Nathaniel; Greene, Joseph; Lee, Lynn; Shortland, Andrew; Carolyn, Swan; Walton, Marc; Stager, Lawrence
46. The challenges of XRF analysis of cultural heritage glass objects
Kaiser, Bruce
47. A preliminary technical investigation of some early faience beads from northwest China
Lin, Yi-Xian; Rehren, Thilo; Wang, Hui; Luo, Feng
48. Glargaarde, the remains of a Renaissance glass workshop
Jouttijärvi, Arne
49. Production and distribution of Mycenaean glass beads in prehistoric Peloponnese, Greece
Kaparou, Maria; Zacharias, Nikolaos
50. Glass production in Merovingian time: A combined archaeological and analytical study
Van Wersch, Line; Mathis, François; Othmane, Guillaume; Vrielynck, Olivier; Strivay, David
51. Study on western Asiatic cast-ribbed rectangular beads from Kaman-Kalehöyük, Turkey by using portable XRF
Nakai, Izumi; Tantrakarn, Kriengkamol; Abe, Yoshinari; Omura, Sachihiko
52. Coloured glasses in Roman age mosaics: Technological occurrences across the Mediterranean
Nikita, Kalliopi; Boschetti, Cristina; Henderson, Julian; Leonelli, Cristina; Veronesi, Paolo
53. Late Roman vessel glass from domestic contexts: A comparative study of glassworking processes as practiced in Peloponnese and central Greece
Papageorgiou, Metaxia; Zacharias, Nikos
54. Late Roman vessel glass from ancient Demetrias: A contribution to glass studies database
Papageorgiou, Metaxia; Androutsopoulos, George; Zacharias, Nikos; Triantafyllopoulou, Pelagia

Posters 55-59: Human-Environment Interactions

55. Comparative study of phosphorus and trace element analysis in the archaeological soils recovered from various archaeological sites of India
Farswan, Yogambar S.
56. Reconstructing fine-grained paleovegetation shifts through variation in stable carbon isotopes of leporids collected from hunter-gatherer archaeological sites in central and south Texas
Muñoz, Cynthia M.; Mauldin, Raymond; Hard, Robert; Smith, Stephen; Villanueva, Patricio
57. Geoarchaeology and the life history of sacred places: Integrated deposit-oriented analysis of abandonment and post-abandonment deposits in a plaza kiva at the Fourmile Ruin, eastern Arizona
Roos, Christopher I.; Van Keuren, Scott
58. Experimental analysis of archaeological soils from Honduras using portable X-ray fluorescence spectrometry
Tykot, Robert H.; Keister, E.; Bear, A.; Wells, E. Christian; Rothenberg, Kara
59. The significance of alkaline earth metals for identifying human activity areas on ancient soil surfaces
Wells, E. Christian

Posters 60-70: Integrated Site Studies

60. Thermal characterization of Bronze Age hearths in the cave of Fraux (Dordogne, France)
Brodard, Aurélie; Guibert, Pierre; Lévêque, François; Vivien Mathé; Carozza, Laurent; Burens, Albane
61. Investigations of lead pipes and drainage system at Castel Viscardo excavation site
Daigle, Anna M.; Donais, Mary Kate; George, David; Duncan, Brad
62. The Roman bridge of Sant'Antioco (Sardinia, Italy)
Giannattasio, Caterina; Grillo, Silvana Maria
63. From boreholes to bulldozers: The effect of scale on geoarchaeological field interpretation
Hodges, Charles M.; Lebow, Clay
64. STACHEM: Science and Technology for Archaeology and Cultural Heritage in the Eastern Mediterranean
Lorentz, Kirsi O.; Müller, Noémi S.
65. Transitional environments and alteration processes: The case-study of pottery from the Roman river harbour of Corte Cavanella (Rovigo, north-eastern Italy)
Maritan, Lara; Nodari, Luca; Thiella, Valentina; Secco, Michele; Lampronti, Giulio Isacco; Russo, Umberto; Mazzoli, Claudio
66. The Milano Antica Project: Information and communication technology for the knowledge and the fruition of the pre-Roman and Roman remains in Milano
Martini, Marco; Sibilina, Emanuela; Mantegari, Glauco; Simone, Carla; Locatelli, Marco; Vizzari, Giuseppe
67. Archaeometrical studies on mortars from the Sachuidic Castle (Forni di Sopra, north-eastern Italy): A tool for archaeological data interpretation
Secco, Michele; Artioli, Gilberto; Mazzoli, Claudio; Gelichi, Sauro; Cianciosi, Alessandra; Piuze, Fabio
68. The metal production at Tepe Düzen (SW Turkey): An archaeological and archaeometric study
Vyncke, Kim; Music, Branco; Degryse, Patrick; Waelkens, Marc
69. Assessment of portable X-ray fluorescence analysis for the study of slate procurement and exchange: A study from Newfoundland and Labrador
Wolff, Christopher B.; Speakman, Robert J.; Fitzhugh, William
70. Transitions in chemical compositions of cobalt-blue colorant in ancient Middle East
Yoshinari, Abe; Tadashi, Kikugawa; Rodan, Harimoto; Tantrakarn, Kriengkamol; Izumi, Nakai

Posters 71-96: Metals and Metallurgical Ceramics (Technology & Provenance)

71. Chemical composition of bronze fibulae from ancient Thrace (Bulgaria)
Bonev, Velislav V.; Zlateva-Rangelova, Boika; Kuleff, Ivelin
72. Study of Andean metallurgy by energy dispersive X-ray fluorescence
Bravo, Jorge A.; Mejia, Mirian; Delgado, Mercedes; Trujillo, Alejandro
73. Copper isotopic data from ancient copper metallurgy in Ingadanaís, (Vila Velha de Ródão) Portugal
Carvalho, João; Gaspar, Miguel; Archer, Corey
74. Negotiating a colonial Maya identity: Metal ornaments from Tipu, Belize
Cockrell, Bryan R.; Martínón-Torres, Marcos; Graham, Elizabeth
75. The mineralogical and chemical evolution from ore to cinders and slag at the iron works of Clintonville, NY
Farthing, Dori J.
76. Significant others? Returning meaning to metal-detected objects through chemical analyses of Romano-British copper alloys and enamels
Fillery-Travis, Ruth G.
77. Experimental archaeology? Exploratory statistical examination of Roman copper alloys using principal component and cluster analysis
Fillery-Travis, Ruth G.
78. Ancient metals provenancing by statistical analysis: A geochemical database of Alpine copper mines
Giunti, Iliaria; Artioli, Gilberto; Angelini, Ivana; Giussani, Barbara; Villa, Igor M.
79. Mycenaean gold: Jewelry production techniques and the myth of the Golden Fleece
Guerra, Maria Filomena; Walter, Philippe; Adrimi-Sismani, Vassiliki
80. The technology and comparative study of two early iron production sites in Henan, China
Hong, Qiyang; Chen, Jianli; Rehren, Thilo
81. Archaeological register and lead isotopes analysis in the Chalcolithic (3rd millennium B.C.): Metal production in south-west Iberian Peninsula: ore provenance, transformation and distribution
Hunt-Ortiz, Mark A.; Hurtado Pérez, Víctor
82. Technological choices and metallurgical ceramics in SW Iberian Peninsula during III millennium BCE
Inácio, Nuno; Nocete, Francisco; Nieto, José Miguel; Sáez, Reinaldo; Bayona, Moisés; Daniel, Abril
83. Chemical composition of Bronze Age metal artefacts from Bulgaria
Ivanova, Silviya I.; Zlateva, Boyka; Kuleff, Ivelin
84. Use of magnetite ores in bloomery iron smelting: Kinetic and Chemical Considerations
Killick, David J.
85. ED-XRF analysis of gold from Chalcolithic necropolis of Varna (mid 5th millennium BC)
Todorov, Boyan; Georgieva, Gergana; Lyubomirova, Valentina; Kuleff, Ivelin
86. Geochemical characteristics of copper ores from the eastern Alps and their relevance as a source of copper in prehistory
Lutz, Joachim; Pernicka, Ernst; Pils, Robert; Tomedi, Gerhard; Vavtar, Franz
87. Early copper smelting in northern Chile
Maldonado, Blanca E.; Rehren, Thilo; Pernicka, Ernst
88. Trace element compositions and lead isotopy of Armenian Neolithic, Eneolithic and Early Bronze Age metal artefacts and comparison to ore sources
Meliksetian, Khachatur; Pernicka, Ernst; Badalyan, Ruben; Brauns, Michael; Avetissyan, Pavel
89. Abitibi (Quebec, Canada): Copper-based artifacts from the Fur Trade Post and Amerindian sites
Moreau, Jean-François; Hancock, R.G.V.; Côté, Marc; Beaudry, Mathieu

90. Metal production in Israel during the Persian period: Archeometallurgical and geomettallurgical research
Sari, Kamil
91. Variation in data reported from handheld XRF analysis resulting from minor alterations to machine calibration
Shugar, Aaron
92. Copper isotopes in archaeology: Case-studies of archaeological metals and minerals in the southwestern U.S.
Thibodeau, Alyson M.; Ruiz, Joaquin; Chesley, John; Thomas, Noah; Killick, David; Mathur, Ryan
93. Recent archaeometallurgical research of pre-colonial copper and iron production at Shankare Hill, northern Lowveld, South Africa.
Thondhlana, Thomas P.; Martínón- Torres, Marcos; Chirikure, Shadreck
94. Analysis of Peruvian metal artifacts in the Orlando Museum of Art
Tykot, Robert H.
95. Composition of bronze and other metal artifacts in the Tampa Museum of Art
Tykot, Robert H.
96. Chemical composition of stamps, moulds and matrixes from Ne Bulgaria: An archaeometallurgy study
Zlateva-Rangelova, Boika K.; Bonev, Velislav V.; Iliev, Ilian; Kuleff, Ivelin

38th International Symposium on Archaeometry

Tampa, May 10-14, 2010

Poster Session 2: Thursday 13:45-14:45 and Friday 13:10-14:10

Posters 97-102: Field Archaeology

97. Integrated remote sensing studies at La Laguna, Tlaxcala, Mexico
Blancas, Jorge; Barba, Luis; Ortiz, Agustín; Carballo, David
98. Arkaroo Rock field trip: An investigation into the source of particulate deposits on culturally significant indigenous Australian rock artworks
Colyer, Kate; Quinton, Jamie; Lenehan, Claire; Pring, Allan; Popelka-Filcoff, Rachel S.
99. Spatial analysis and predictive modeling: New tools of land-use plans
Lopez Varela, Sandra L.
100. Integral geophysical study to characterize archaeological structures in Los Teteles de Ocotitla, Mexico
Lopez, Pedro A.; Chavez, Rene; Tejero, Andres; Argote, Denisse
101. Agriculture in terraces in Cerro San Lucas, Teotihuacan Valley: Study from the surface
Pérez, Pérez J.; Barba, Luis; McClung, Emily; Ortiz, Agustín; Blancas, Jorge; Gama, Jorge; Peralta, Armando
102. The secondary distribution of archaeological obsidian in Rio Grande Quaternary sediments, Jemez mountains to San Antonito, New Mexico: Inferences for prehistoric procurement and the age of sediments
Shackley, Steven

Posters 103-119: Dating

103. Recent developments in nondestructive radiocarbon dating of fragile organic artifacts and textiles
Armitage, Ruth Ann; Hardemon, Deidre
104. Extracting and dating microscopic charcoal from archaeological contexts
Cummings, Linda Scott; Varney, R.A.
105. Luminescence dating in transition landscapes of the Ribatejo, Portugal
Dias, M. Isabel; Burbidge, Christopher I.; Cardoso, G.; Osterbeeck, L.; Scarre, C.; Prudencio, M.I.; Franco, D.; Cruz, A.; Cura, P.
106. Dating studies of pottery and sediment materials from prehistoric site of Smintheion (Biga Peninsula, Northwest Turkey) with the application of luminescence techniques
Kiyak, Nafiye G.; Polymeris, George; Takaoglu, Turhan; Erginal, Evren; Kitis, George
107. Technical examination of deceptive inpaintings in figurative designs of southwestern Native American vessels
Lee, Lynn F.; LeBlanc, Steven; Khandekar, Narayan
108. The novel Sims-Ss obsidian hydration dating method: New results and additional suitability criteria
Liritzis, Ioannis; Laskaris, Nikolaos
109. Advances in surface luminescence dating: New data from selected Mediterranean monuments
Liritzis, Ioannis; Zacharias, Nikolaos; Polymeris, George; Usai, Alessandro; Bernarik, Robert
110. Combining dendrochronology and radiocarbon dating at the Late Medieval site of Sant'Alvise, Venice, Italy
Martinelli, Nicoletta; Meadows, John; Valzolgher, Erio; Pignatelli, Olivia; Anglani, Laura; Kromer, Bernd

111. Trois-Rivières: Dating of early settlements on the Saint-Maurice River (Québec, Canada)
Moreau, Jean-François; Hancock, R.G.V.; Duguay, Françoise
112. Dating of Las Mesas Fortified Site (Badajoz, Spain)
Odriozola, Carlos P.; Burbidge, Christopher; Dias, María Isabel; Hurtado, Victor
113. Radiocarbon Chronology of Kaman-Kalehöyük, Turkey
Omori, Takayuki; Matsumura, Kimiyoshi; Nakamura, Toshio
114. Thermoluminescence dating of ceramics from an archaeological house site in the Aburra Valley, Medellín, Colombia.
Ramirez, Angel; Schaaf, Peter; Obregon, Mauricio; Botero, Sofia; Gomez, Liliana; Ortiz, Agustin; Barba, Luis
115. Optical luminescence ages at Wakulla Springs lodge: Pre-Clovis or too old?
Rink, W. Jack; Burdette, Kevin; Dunbar, James; Thulman, David K.
116. What is it that we date when dating pottery? View of archaeologist
Saprykina, Irina; Zelentsova, Olga; Voronin, Konstantin V.
117. Fluoride dating: possibilities and prospects
Schurr, Mark R.
118. Archaeometric investigations at the Moche funerary complex at Huaca Rajada, Peru: Towards an absolute chronology of the Sipán archaeological site
Sibilia, Emanuela; Martini, Marco; Maspero, Francesco; Galli, Anna
119. Dating volcanic eruptions in prehistory: Elemental and isotopic approaches
Speakman, Robert J.; France, Christine; Sheppard, Paul; Jimenez Cano, Nadia; Little, Nicole

Posters 120-153: Stone, Plaster and Pigments (Technology & Provenance)

120. High-resolution geochemical characterization of Otumba obsidian source, Mexico, for provenance studies
Argote, Denisse L.; Sole, Jesus; Sterpone, Osvaldo; Lopez, Pedro
121. Features of Roman plaster aggregates (Regiones X and XI, Lombardy, northern Italy)
Bugini Roberto M.; Folli, Luisa
122. Early days: Sourcing obsidian from the Öküzini Cave (SW Turkey)
Carter, Tristan; Le Bourdonnec, François-Xavier; Kartal, M.; Poupeau, G.; Moretto, P.
123. Sourcing Egyptian limestone: Revisiting neutron activation analysis as a complementary method
Coleman, Magen E.; Hauck, Danielle; Harrell, James; Glascock, Michael
124. Whetstones under the microscope: New data on provenance and use of sharpening stones from the Viking Age urban centre and cemetery Gnezdovo in the western part of Russia
Eniosova, Natalia; Mitoyan, Robert; Bychkova, Yana
125. A study of lithic use-wear discrimination using laser scanning confocal microscopy: A technique to quantitatively differentiate lithic use-wear signatures and attribute measured use-wear to specific contact materials
Farber, Elliott M.
126. A multi-tier and multi-method approach to the analysis of obsidian source data from the Central Rift Valley of Kenya
Ferguson, Jeffrey R.; Ambrose, Stanley; Glascock, Michael
127. On-site and laboratory investigation on the 16th-17th century masonries: The Foxi defensive tower (Sardinian Cagliari Gulf)
Grillo, Silvana Maria; Giannattasio, Caterina
128. Dolomitic Marble at the Louvre: Algeria, Egypt and Rome
Calligaro, Thomas; Coquinot, Yvan; Herrmann, Jr., John J.; Laugier, Ludovic; Holakooei, Parviz; Abed-Esfahani, Abbas; Samanian, Samad; Aslani, Hesam
129. Technical study of Lâyé-Chini decorations (pastiglia) in Safavid Monuments of Isfahân (Iran)
Holakooei, Parviz; Abed-Esfahani, Abbas; Samanian, Samad; Aslani, Hesam

130. Characterization and provenance of red pigment used in megalithic tombs of south of Portugal
Inácio, Nuno; Nocete, Francisco; Nieto, José Miguel; Bayona, Moisés; Daniel, Abril
131. Conservation and neutron activation analysis: A case-study of natural pigments of the northern Great Plains
Kingery, Anne E.; Popelka-Filcoff, Rachel; Lopez, David; Pottier, Fabien; Hill, Patrick; Glascock, Michael
132. Two 16th century Flemish panel paintings analysed by portable XRF
Križnar, Anabelle; Muñoz, María del Valme; De la Paz, Fuensanta; Respaldiza, Miguel Ángel; Vega, Mercedes
133. Trends in the Neolithic exploitation of the Monte Arci (Sardinia, western Mediterranean) obsidian sources
Le Bourdonnec, François-Xavier; Lugliè, Carlo; Poupeau, Gérard; Carter, Tristan
134. Non-destructive Argentinean obsidian sourcing with portable edXRF system
Lopes, Fabio; Bellelli, Cristina; Stagnaro, Susana Y.; M. Galvão, Tiago D.; Rueda, Monica L.; Melquiades, Fabio L.; Appoloni, Carlos R.
135. Marble provenance analysis of the monument of Ptolemy II and Arsinoe in ancient Olympia: Matching of stones and restoration
Maniatis, Yannis; Tambakopoulos, Dimitris; Polychroniou, Anna; Herrmann, K.
136. Role of the under-layer on the coloured perception of gilts in medieval mural paintings
Mounier, Aurélie; Daniel, Floréal
137. Variscite source and source analysis: Pico Centeno (Encinasola, Spain)
Odriozola, Carlos P.; Linares Catela, José Antonio; Hurtado Pérez, Víctor
138. Provenance investigation and characterisation of marble artefacts from the Roman town of Thamusia (Kenitra, Morocco)
Origlia, Francesca; Maniatis, Yannis; Tambakopoulos, Dimitris; Spangenberg, Jorge; Memmi, Isabella; Papi, Emanuele
139. Characterisation and provenancing of iron earth pigments by physical and geochemical methods
Panczyk, Ewa; Panczyk, Magdalena; Giemza, Jaroslaw; Zachariasz, Piotr; Walis, Lech
140. X-ray diffraction pattern clustering for discriminating mortars production recipes
Piovesan, Rebecca; Maritan, Lara; Dalconi, Maria Chiara; Mazzoli, Claudio
141. The marbles of Hadrian's Temple in Ephesos, Asia Minor
Prochaska, Walter; Grillo, Silvana Maria; Quatember, Ursula
142. Palaeochemical signatures of fossil material present in Mayan lime plaster from the Temple of Inscriptions, Palenque, México
Riquelme, Francisco; Ruvalcaba-Sil, José Luis; Cuevas-García, Martha; Alvarado-Ortega, Jesús
143. LA-ICP-MS study of prehistoric rock paints and possible sources of the pigments
Russ, Jon; Milton, Sydney; Mouron, Christopher; Hannigan, Robyn
144. Provenance studies of turquoise artifacts from central Arizona Salado sites and comparison to regional sources using PIXE and XRD
Simon, Arleyn W.; Crider, Destiny; Murakami, Tatsuya; Wilkens, Barry
145. Approaches to micro-XRF analysis of obsidian
Speakman, Robert J.; Phillips, S. Colby; Florey, Victoria; Little, Nicole; Iñáñez, Javier G.
146. Methods of provenance determination of carbonate stones (marbles, limestones and marlstones) from the Czech Republic
Šťastná, Aneta; Pětikryl, Richard
147. Characterisation of sandstone blocks from historical buildings and environmental influence on its deterioration
Szczepaniak, Magorzata; Nawrocka, Danuta
148. Analysis of potential marble from North Africa
Tykot, Robert H.; Turner, J.; Lotfi, R.; Miller, M.; Herrmann, Jr., J.J.; van den Hoek, A.
149. Subsource specific sourcing of Skorba (Malta) obsidian
Tykot, Robert H.; Trump, D.H.

150. Sources of obsidian used in the Tavoliere, Italy
Tykot, Robert H.; Brown, K.; Whitehouse, R.
151. Establishing a sourcing database for non-destructive X-ray fluorescence analysis of Sardinia obsidian
Tykot, Robert H.; Laga, F.; Williamson, M.
152. Influence of microstructure of stone tool materials on use-wear formation: Preliminary experiment on igneous rocks
Yonekura, Kaoru
153. Research on the barium tin silicate inclusion in the man-made barium copper silicate pigments of western Han Dynasty
Zhang, Zhiguo; Ma, Qinglin; Berke, Heinz

Posters 154-169: Bioarchaeology

154. Agriculture and Roman imports between 6th century B.C. and 3rd century A.D. in the site of Thamusa-Sidi Ali ben Ahmed (north-west Morocco)
Bellavia, Valentina; Buonincontri, Mauro; Allevato, Emilia; Pecci, Alessandra; Di Pasquale, Gaetano
155. Proteomics study of organic residues from ancient Upper Macedonia, northern Greece
Boeren, Sjef; Vervoort, Jacques; Iordanidis, Andreas; Kalaitzidis, Stavros
156. Food for the thought pot: Use of FTIR in examining food residues
Cummings, Linda Scott; Logan, Melissa
157. Further studies on the survival of hemoglobin in rock paintings
Fraser, Daniel M.; Armitage, Ruth Ann
158. The case for reprecipitation of human bone as an event, in a Bronze Age cist burial, Scotland
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186. Stable isotopic indicators of diet from two late prehistoric burial sites in Portugal: An investigation of dietary evidence of social differentiation
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