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
Convenor: Yannis Maniatis
10:20 - 10:50 Coffee Break
10:50 - 12:30 Session: Stone, Plaster and Pigments (continued)
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)
15:45 - 16:15 Coffee Break
16:15 - 17:15 Session: Stone, Plaster and Pigments (continued)
17:15 - 18:20 Session: Field Archaeology
Convenors: Luis Barba & Robert Sternberg
19:30 Opening Party at Busch Gardens

Tuesday, May 11
8:30 - 11:15 Session: Dating Methods
Convenor: Marco Martini
10:15 - 10:45 Coffee Break
10:45 - 11:25 Session: Dating Methods (continued)
11:25 - 12:30 Session: Metals and Metallurgical Ceramics
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)
15:45 - 16:15 Coffee Break
16:15 - 17:55 Session: Metals and Metallurgical Ceramics (continued)
17:55 Presentations for 2012 venue
### Wednesday, May 12

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:30 - 10:15</td>
<td><strong>Session</strong>: Bioarchaeology 37-41</td>
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<td>Convenor: Henk Kars</td>
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<td>10:15 - 10:45</td>
<td><strong>Coffee Break</strong></td>
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<td>10:45 - 12:05</td>
<td><strong>Session</strong>: Bioarchaeology 42-45</td>
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<td>12:05 - 13:15</td>
<td><strong>Lunch</strong></td>
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<td>13:15 - 19:00</td>
<td><strong>Crystal River Archaeological Site</strong></td>
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### Thursday, May 13

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

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<th>Time</th>
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<tr>
<td>9:00 - 10:25</td>
<td><strong>Session</strong>: Glass and Vitreous Materials 65-68</td>
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<td>Convenor: Josefina Perez-Arantegui</td>
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<td>10:25 - 10:55</td>
<td><strong>Coffee Break</strong></td>
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<tr>
<td>10:55 - 11:55</td>
<td><strong>Session</strong>: Glass and Vitreous Materials (continued) 69-71</td>
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<td>11:55 - 13:10</td>
<td><strong>Lunch</strong></td>
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<td>13:10 - 14:10</td>
<td><strong>Poster Session 2b</strong></td>
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<td>97-102: Field Archaeology</td>
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<td>170-186: Isotopic Analysis of Human Skeletal Remains</td>
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<td>14:10 - 15:15</td>
<td><strong>Session</strong>: Human-Environment Interactions 71-74</td>
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<td>Convenor: A. Mark Pollard</td>
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<td>15:15 - 15:45</td>
<td><strong>Coffee Break</strong></td>
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<td>15:45 - 17:30</td>
<td><strong>Session</strong>: Integrated Site Studies 75-79</td>
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<td>Convenor: Patrick Degryse</td>
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<td>17:30</td>
<td><strong>Prizes and Closing Ceremony</strong></td>
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38th International Symposium on Archaeometry  
Tampa, May 10-14, 2010

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  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

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
   Chairperson: Robert Sternberg
   Introduction to the session

17:15 - 17:20

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
SESSION: Dating Methods
Convenor: Marco Martini

Chairperson: Marco Martini

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

   Wiener, Malcolm H.; Earle, Jason

   Cherkinsky, Alexander; Urton, Gary

   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 Irenée’s church, Lyon (France)
   Bouvier, Armel; Guibert, Pierre; Sapin, Christian; Reynaud,
   Jean-François
SESSION: Metals and Metallurgical Ceramics (Technology & Provenance)
Convenor: David Killick

Chairperson: David Killick

Introduction to the session

11:25 - 11:30

26. Chalcolithic arsenical copper Smelting in Kolubara, western Serbia
   Radivojevic, Miljana; Rehren, Thilo; Blagoev, Mirjana

11:30 - 11:50

27. Towards assessing the technological role of the “perforated furnaces” in Early Bronze Age Siphnian ( Aegean) lead-silver production
   Bassiakos, Yannis; Georgakopoulou, Myrto; Papadopoulou, Zozi

11:50 - 12:10

28. Metallurgy during the 3rd Millennium BC in Upper Mesopotamia: A case study from Tell Chuera and Tell Raqa’i
   Franke, Kristina A.

12:10 - 12:30

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)
Convenor: 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
_Martínón-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; Martínón-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**
SESSION: Bioarchaeology
Convenor: Henk Kars

Chairperson: Henk Kars
Introduction to the session

8:30 - 8:35
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.

8:35 - 8:55
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

8:55 - 9:15
39. Provenance of ancient textiles: A new method provides information on trading in the past
   Frei, Karin Margarita

9:15 - 9:35
40. MicroPIXE/PIGE versus archaeozoology: Is there a potential to establish chemical markers for identification of ancient osseous industry?
   Reiche, Ina; Müller, Katharina

9:35 - 9:55
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
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
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-Artegual

Chairperson: Josefina Perez-Artegual

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
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; Gratube, 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
72. GIS and climate modeling for the latest Pleistocene and Holocene
   *Cummings, Linda Scott; Varney, R.A.; Miller, Kay*

14:15 - 14:35
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*

14:35 - 14:55
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
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?  
Joutijärvi, Arne

17:30  
Prizes and Closing Ceremony
38th International Symposium on Archaeometry  
Tampa, May 10-14, 2010

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
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 Ontóveros, Miguel Angel; 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; Iñana, Javier G.; Amores Carredano,
   Fernando; Beltrán de Heredia Bercero, 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
    Iñana, Javier G.; Molera, Judit; Pradell, Trinitat; Madrid i Fernandez, Marisol; Buxeda i
    Garrigos, Jaume; Speakman, Robert J.
12. Archaeometrical characterization of majolica ceramics from St. Augustine (Florida)
    Iñana, Javier G.; Watters, Gifford J.; Deagan, Kathleen; Jimenez-Cano, Nadia; Glascock,
    Michael D.; Speakman, Robert J.
    majolica
    Iñana, 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)  
İşsi, Ali; Kara, Alpagut; Alp, A. Öğuz

18. A detailed investigation into slip layers of Hellenistic ceramic wares from Dorylaion (Eskişehir-Turkey)  
Kara, Alpagut; İşsi, 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 Ruiz, 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 Trojan 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, Sandhia) and Syria (Ugarit) and their potential raw material sources  
Renson, 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; Carolyne, 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
   Joutti-Järvi, 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, Francois; 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; Tantarakarn, Kiengkamol; Abe, Yoshinari; Omura, Sachihiro
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
   Munoz, 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)
   Brodar, Aurélie; Guibert, Pierre; Lévéque, 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; Sibilia, Emanuela; Montegari, 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; Piuuzzi, 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 Ingadianais, (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.; Martinûn-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, Ilaria; 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, Qiyan; 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-Francois; Hancock, R.G.V.; Côté, Marc; Beaudry, Mathieu

25
90. Metal production in Israel during the Persian period: Archeometallurgical and geometallurgical 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.; Martinón-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  
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**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; Zachartas, Nikolaos; Polymeris, George; Usai, Alessandro; Bernarik, Robert*

110. Combining dendrochronology and radiocarbon dating at the Late Medieval site of Sant’Alvise, Venice, Italy  
*Martineili, 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, Maria Isabel; Hurtado, Victor

113. Radiocarbon Chronology of Kaman-Kalehoyuk, Turkey  
    Omori, Takayuki; Matsumura, Kimiyoshi; Nakamura, Toshio

114. Thermoluminescence dating of ceramics from an archaeological house site in the Aburra Valley, Medellin, 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 Isfâhân (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
   Kržinar, Anabelle; Muñoz, María del Valme; De la Paz, Fuensanta; Respaldiza, Miguel Angel; 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, Victor
138. Provenance investigation and characterisation of marble artefacts from the Roman town of Thamusida (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; Mariani, 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, Christophor; 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
   Štastná, Aneta; Píkryl, 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 Thamusida–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
Hall, Allan J.; Wilson, Lyn; Young, Maureen
159. Identifying malarial parasitic infection in archaeological human bones: Results of a preliminary study using animal models as a proxy
Inwood, Jamie L.; Tonoike, Yukiko; Skinner, H. Catherine; McIntosh, Roderick
160. Environmental dose rate assessment from active fault zone in western Anatolia, Turkey: Towards retrospective epidemiology
Kiyak, Mithat; Polymeris, George; Kiyak, Nafiye
161. Determining heavy metal content of bone using portable XRF
Little, Nicole C.; Molina, Irma; Owsley, Doug; Speakman, Jeff
162. High-throughput mass spectrometric analysis of lipid biomarkers for ancient tuberculosis infection
Mark, Laszlo; Maasz, Gabor; Patonai, Zoltan; Bona, Agnes
163. The application of medical imaging techniques to the study of mummified animal material from ancient Egypt
McKnight, Lidiya M.; David, Rosalie; Adams, Judith; Brothwell, Don
164. Time-lines in teeth: Investigating the timing and pattern of enamel maturation in developing human teeth with micro-CT
Montgomery, Janet; Beaumont, Julia; MacKenzie, Kevin; Shore, Roger; Brookes, Steven; Lynnerup, Niels
165. Residue analysis of Late Roman cooking pots and amphorae from the Balearic Islands: Preliminary results
Pecci, Alessandra; Cau Ontiveros, Miguel Ángel
166. Multianalytical characterization of cosmetics in archaeological remains from the Roman period in the Iberian Peninsula
Perez-Aranteigi, Josefina; Ribechini, Erika; Colombini, Maria Perla; Paz, Juan Angel
167. Exploring Maize Use through Bulk Stable Carbon Isotope Analysis of Absorbed Residues in Mesoamerican Ceramics
Seinfeld, Daniel
168. New perspectives of agricultural archaeology in China
   Wang, Changsui
169. “Golden” medicament: Traditional and scientific role of mineral drugs (orpiment case study)
   Wasilewski, Michal

Posters 170-186: Isotopic Analysis of Human Skeletal Remains

170. H and O isotope variation in collagen of Amboseli fauna: Dietary, environmental, and
     diagenetic implications
     Alex, Bridget A.; Tuross, Noreen; Behrensmeier, Anna K.
171. 13C and 15N values from Quebrada de Humahuaca and Puna (Jujuy, NW Argentina):
     Paleodietary implications
     Amman, Matias G.; Mendonça, Osvaldo J.; Merlo, Noelia I.; Bordach, Maria A.; Tykot,
     Robert H.
172. Identifying survivors of the Great Irish Famine in a 19th century London cemetery
     Beaumont, Julia; Montgomery, Janet
173. Multiple isotope and trace element evidence for late/sub-Roman migration to Britain
     Chenery, Carolyn A.; Chenery, Simon; Evans, Jane; Rice, David; Eckardt, Hella;
     Müldner, Gundula; Lewis, Mary
174. Life, Death and Sacrifice at the Preceramic site of Bandurria, Peru: A Bioarchaeological
     Perspective
     Coutts, Karen H.; Chu, A.; Krigbaum John
175. Spatial variations in biosphere 87Sr/86Sr in Britain and the implications for human migration
     studies
     Evans, Jane A.; Montgomery, Janet; Wildman, Geraldine
176. Stable isotope analysis on human skeletal remains from Argos (Greece): Reconstruction of a
     4,000 year long dietary history
     Hapiot, Laurence; Hastorf, Christine; Miller, Melanie J.
177. Stable isotopic analysis of bones and teeth of human and fauna in Taojiazhai site, Xining,
     Qinghai
     Hu, Yaowu; Zhang, Jinglei; Ma, Ying; Guo, Yi; Zhu, Hong; Wang, Changsui
178. Quantifying changes in fish consumption in Roman and early medieval Italy using stable
     isotope analysis
     Nitsch, Erika K.
179. New techniques for the recovery of small amounts of mature enamel proteins and protein
     identification by MALDI TOF/TOF MS
     Porto, Isabel Maria; Laure, Helen Julie; Barbosa de Sousa, Frederico; Rosa, Jose Cesar;
     Gerlach, Raquel Fernanda
180. Isotopic detection of diet, diversity, and diffuse idiopathic skeletal hyperostosis (DISH) in
     later and post medieval Flanders and Brussels, Belgium
     Quintelier, Kim I.; Fuller, Benjamin T.
181. Sr isotopes in human migration studies: The importance of enamel leaching
     Schaaf, Peter; Horn, Peter; Solís-Pichardo, Gabriela; Hernández-Treviño, Teodoro;
     Manzanilla-Naim, Linda
182. Microsampling of human bones for mobility studies: Diagenetic impacts and potentials for
     elemental and isotopic research
     Scharlotta, Ian
183. Spatial variability of biologically available 87Sr/86Sr, rare earth and trace elements in the
     Cis-Baikal region, Siberia: Evidence from environmental samples and small cemeteries
     Scharlotta, Ian
184. Tracing the status-dependent dietary differences recorded in the bone and dentine collagen
     from the site of Imdang, Gyeongsan (Silla high-mound tomb period)
     Shin, Ji Young; Lee, June-Jeong
185. Sr isotopes in human migration studies: The role of bone diversity, soil impact and the use of fertilizers
   Solís-Pichardo, Gabriela; Schaaf, Peter; Lailson, Becket; Manzanilla-Naim, Linda; Horn, Peter; Hernández-Treviño, Teodoro

186. Stable isotopic indicators of diet from two late prehistoric burial sites in Portugal: An investigation of dietary evidence of social differentiation
   Waterman, Anna J.; Silva, Ana Maria; Tykot, Robert H.