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A MESSAGE FROM THE PRESIDENT

As this is the first time I address you as president of the Society for Archaeological Sciences, I'd first of all especially like to thank Sandra Lopez-Varela for her many years of (still continuing) commitment to SAS! Sandra has done and is still doing a wonderful job for our society, but also for society as a whole, with her involvement in many international committees and groups for the safeguarding of archaeological science, archaeology, and cultural heritage.

Secondly, I'd like to congratulate Rob Tykot with his election as president-elect of SAS. Together with our growing membership, I'm sure we can help the archaeological sciences in their scientific and societal significance and evolution.

The growing interest in what an archaeological scientist does is clearly visible from increasing student numbers and press coverage, and from the increase in scientific papers published in several old and new journals. SAS has the explicit ambition of supporting our field in its path.

A growing visibility does, however, not necessarily reflect maturity. Funds for education and research are under pressure everywhere, and also the intellectual currency of our discipline should be watched. Only by actively engaging the archaeologist and anthropologist to formulate, together and from the start of an undertaking, the questions and techniques that are important, and by explaining the relevance and limitations of our

science, our important task to safeguard the value of our research can be successfully continued.

SAS motivates talented students to pursue their education and research with the R.E. Taylor Award and the Student Research International Travel Award. With the secondment of particular sessions or conferences, and with our involvement in an encyclopaedia of archaeological sciences, we promote the field as a whole, also in the archaeological and anthropological communities. Additionally, a code of conduct is being developed. And maybe it is also time to look at ways to integrate several archaeological sciences groups and committees into this effort.

I'd like to conclude by asking our members to participate in this undertaking. Our doors are certainly always open for new suggestions and feedback. I wish you a successful term of education, teaching and research, and I hope to see you soon at one of the many workshops, conferences or talks on archaeological sciences!

Patrick Degryse,
SAS President



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ARCHAEOLOGICAL CERAMICS

Charles C. Kolb, Associate Editor

The column in this issue includes eight topics: 1) Announcement; 2) Cancelled Exhibition; 3) Reviews of Books on Archaeological Ceramics; 4) Previous Meetings; 5) Future Meetings; 6) Recently Published; 7) Exhibition; and 8) Online Resource.

Announcement: Ceramic Ecology

As readers may know, your Associate Editor has served as the Chairman and Organizer or Co-organizer of the annual Ceramic Ecology symposium held at the American Anthropological Association annual meetings for a quarter century. The 25th *Ceramic Ecology symposium (CE25)* in Montreal, Quebec, Canada on 19 November 2011 was very successful thanks to the efforts of Sandra Lopez de Varela, Kostalena Michelaki, and Dean Arnold. It gives me great pleasure to announce that as a part of that Silver Anniversary meeting I have formally handed over the duties of Chairman and Organizer to Kostalena and Sandra both of whom have participated in numerous Ceramic Ecology sessions as presenters or discussants. This change has been in the works for more than a year. Sandra is immediate Past-President of the Society for Archaeological Sciences while Kostalena has just moved to ASU from McMaster University in Hamilton, Ontario, Canada where she directed a major archaeometry lab focusing on ceramics. They are both solid scholars and enthusiastic about ceramic studies whether ethnographic, archaeological, or archaeometric. Handing over the duties to a team of two allows them to present papers as well as organize and chair sessions (the AAA's limit of three roles). I shall remain as an advisor and perhaps give a paper from time to time, but 25 years is sufficient and new thinking and directions should be incorporated. Contact information: Sandra L. Lopez Varela, Ph.D., RPA; Departamento de Antropología; Facultad de Humanidades; Universidad Autónoma del Estado de Morelos; Av. Universidad 1001 Col. Chamilpa; Cuernavaca, Morelos 62209, México -- slvarela@uaem.mx. Kostalena Michelaki, Ph.D.; School of Human Evolution and Social Change; Arizona State University; 900 S. Cady Mall, Room 366; Tempe, AZ 85287-2402, U.S.A. --

kmichela@asu.edu. Please welcome Sandra and Kostalena.

Cancelled Exhibition

Shipwrecked: Tang Treasures and Monsoon Winds: Smithsonian Institution officials have decided to cancel a controversial exhibit of shipwreck artifacts due to ethical concerns about how the artifacts were salvaged. The institution is also now strongly backing re-excavation of the original shipwreck, which lies off the coast of Indonesia, according to a 14 December 2011 press release from the Smithsonian. Originally scheduled to open in 2012, *Shipwrecked: Tang Treasures and Monsoon Winds* contains imperial-quality silver, gold, and ceramic artifacts salvaged from a 9th century ship, the *Belitung*. The exhibit has been dogged by controversy since last February. Professional archaeologists charged that the excavator, a private German company called Seabed Explorations GbR, failed to meet crucial scientific standards while excavating a ship of international significance. The Smithsonian's decision came after a meeting that its officials held on 8 and 9 December with a blue-ribbon advisory committee including participants from UNESCO, the National Oceanic and Atmospheric Administration, the International Committee on Monuments and Sites, the World Archaeological Congress Committee on Ethics, the Philippines National Museum, and others. Other details are available at: <http://www.asia.si.edu/press/2011/prShipwreckedAdvisoryStmntDec142011.asp> and <http://news.sciencemag.org/scienceinsider/2011/12/smithsonian-scuppers-shipwreck.html>

The catalog for this exhibition, *Shipwrecked: Tang Treasures and Monsoon Winds* (Regina Krahl, John Guy, J. Keith Wilson, and Julian Raby (eds.), with contributions by Alison Effeny, Michael Flecker, John Guy, Jessica Hallett, Hsieh Ming-liang, Regina Krahl, Li Baoping with Chen Yuh-shiow and Nigel Wood, Liu Yang, François Louis, Qi Dongfang, Wang Gungwu, Tom Vosmer, and J. Keith Wilson; Arthur M. Sackler Gallery, Smithsonian Institution, Washington, DCV; the National Heritage Board, Singapore; and the Singapore Tourism Board, 2010), was reviewed in a previous issue of the *Bulletin: SAS Bulletin* 34(2):14-16 (2011).

Reviews of Books on Archaeological Ceramics

Plain and Painted Pottery: The Rise of Late Neolithic Ceramic Styles on the Syrian and Northern Mesopotamian Plains, Olivier Nieuwenhuys, PALMA 3: Near Eastern Archaeology, Papers on Archaeology from the Leiden Museum of Antiquities, Turnhout, Belgium: Brepols Publishers, n.v., 2007. 551 pp., 153 figures, 141 plates [24 in color], 250 tables, references, and acknowledgments, ISBN-10: 2503524443, ISBN-13: 978-2503524443, \$174.00 (paperback). The author, Olivier Nieuwenhuys, has worked on archaeological projects in Syria, Turkey, and Lebanon and at the time he prepared this volume was a researcher at Leiden University where he was involved in a research project “Abrupt Climate Change and Cultural Transformation.” He is currently affiliated with the Oriental Department of the Deutsches Archäologisches Institut. This monograph is based on his Faculteit der Archeologie Universiteit Leiden Ph.D. thesis from 2006 (promoted [directed] by Dr. Prof. P. M. M. G. Akkermans) which had the same title and was supported by the Netherlands Organization for Scientific Research (NOW) and Stichting Nederlands Museum voor Anthropologie en Praehistorie. Most of the thesis is embargoed, see <http://hdl.handle.net/1887/4331> <http://en.scientificcommons.org/45141545>, and <https://openaccess.leidenuniv.nl/bitstream/handle/1887/4331/Front.pdf?sequence=24>

The study reported by Nieuwenhuys in this volume focuses on what many scholars regard as a significant issue in Near Eastern prehistoric archaeology, the rise of the Halaf culture, ca. 5900-5400 cal. BCE. This monograph contains a detailed, quantified, and highly illustrated discussion of the ceramics excavated by the National Museum of Antiquities Leiden at Tell Sabi Abyad in northern Syria, concentrating on the 1996-2000 field seasons (campaigns). In addition, the author has also synthesized nearly all of the previous research undertaken on Halaf pottery in order to provide a comprehensive overview. To date, Tell Sabi Abyad remains the only archaeological site in the Near East where the transition from a Pre-Halaf to an Early Halaf cultural assemblage can be followed within a

continuous, meticulously stratified sequence. This change occurred during a short-lived Transitional stage, radiocarbon dated at 6100-5900 cal. BCE. This conversion is characterized by the gradual replacement of plain Coarse Ware by intricately painted Fine Wares, and by numerous innovations in ceramic technology, morphology, and decorative style.

“I. A Painted Pottery Revolution” (pp. 9-14, 4 figures, 3 tables). This introductory essay provides context for the volume in terms of the organization of the monograph and the excavations (in the main, Tell Sabi Abyad) that provided data that Nieuwenhuys employed in his analysis. His discussion about the Transitional period is especially relevant, providing new insights and asking new questions. “II. A World of Pottery” (pp. 15-30, 6 figures). Nieuwenhuys provides the reader with a very relevant discussion about current approaches to the analysis of ceramics from Late Neolithic contexts in the Near East and provides background information on Late Neolithic migrations, the issue of social evolution and social de-evolution, and Late Neolithic pottery as a metaphor. A key empirical problem (“my sherds don’t fit” current typologies) is reviewed as are theoretical issues, implicit assumptions, and relationships of shared cultures and common histories in the task of relating “pots to people.” He also tackles the issue of pottery vessels without context and the Transitional period as the “missing link” between Pre-Halaf and Early Halaf ceramics. He adopts a “bottom up” approach rather than imposing “pre-fabricated culture-historical categories” (p. 29). “III. Syria in the Late Neolithic” (pp. 31-49, 12 figures, 2 tables). This chapter focuses initially on the social context of pottery production beginning with a discussion of the physical setting, mobile society and social (“easily founded, easily deserted”). The complexities of the Late Neolithic site of Tell Sabi Abyad are reviewed with special attention to levels 8, 6, and 3, before an analysis of a small briefly-occupied village, Tell Boueid II, and a summary of the social organization of Transitional period societies.

“IV. Defining the Transitional Period at Tell Sabi Abyad” (pp. 51-67, 16 figures, 12 tables). The author notes that “perhaps the most dramatic aspect of the Genesis of the Early Halaf ceramic

assemblage was the virtual complete shift from an assemblage characterized by the production of plant tempered wares (levels 8-10) to one dominated by fine mineral-tempered wares (levels 3-1)" (p. 51). Nieuwenhuys discusses the identification and quantification of sherds in the field, issues of quantifying Late Neolithic pottery, and the effects of the depositional context. Human burials and grave goods are also considered. The status of level 6, defined as the "Burnt Village," is reviewed and he ends with a summarization of the Transitional period at the site. "V. The Ceramic Technology of the Transitional Period" (pp. 69-105, 24 figures, 33 tables). In this substantive chapter, the author begins by defining terms such as "fabric," characterizing inclusions, and differentiating smoothing, burnishing, and slipping. The definitions follow those of the Department of Pottery Technology at Leiden University but some other citations to non-Dutch scholarship also appear: Matson, Rice, and Rye. He next considers the organization of the technology of production, tools (raw material procurement through firing), and raw materials employed in defining seven ceramic wares: Standard Ware, Grey-Black Ware, Mineral Coarse Ware, Dark-Faced Burnished Ware, Orange Fine Ware, and Fine Painted Ware. In addition he discusses fine wares from the sites of Tell Boueid II, Baghouz, and Shimshara. Changes in the social context of Fine Ware are detailed in Table 5.12.1 (p. 101). "VI. Changes and Continuities in Pottery Use" (pp. 107-155, 40 figures, 63 tables). Nieuwenhuys next considers the complexities of the uses of Late Neolithic ceramics in social, economic, and ritual functions. He reviews the modeling of vessel use and the description of shape, using these to differentiate the morphology and uses of the same seven wares (pp. 110-143) described in the previous chapter (pp. 74-97). Diachronic changes in ceramic functions, the production of Standard Ware, and the development of the "cream bowl" are also documented.

"VII. The Rise of the Halaf style" (pp. 157-212, 44 figures, 48 tables). The author also deals with the complexities of decoding design grammar, with emphasis on seven Standard Ware decorative styles: red-slipped, red-painted, incised, impressed, "red-painted-and-impressed in alternating bands," applique, and bitumen painted. The decorative styles

of Grey-Black Ware, Mineral Coarse Ware, Dark-Faced Burnished Ware, Orange Fine Ware, and Fine Painted Ware are also documented, followed by a useful discussion of the transition from Standard Fine Ware to Halaf Fine Ware and the roots of the Halaf decorative style. The uses of decorated pottery at Tell Sabi Abyad are detailed briefly and the author reviews "spirited representations" and "bounded abstractions on some ceramics. Figure 7.11.5 (p. 211) documents Pre-Halaf, Transitional, and Early Halaf wares as represented in outward social practices and local, domestic social practices. "VIII. A Matter of Style: Conclusions and Prospects" (pp. 213-226, 7 figures, 1 table). The concluding chapter presents the author's hypothesis on the origin of ceramic styles and archeological manifestations, reviewing evidence on the process of emulation, and the significance of social feasting. The bulk of this monograph is composed of relevant bibliography, two appendices, and a catalog of finds: "References" (pp. 227-252) with 557 entries; "Appendix I: Rim diameter and wall thickness of Late Neolithic vessel shapes, 1988-1999 campaigns" (pp. 255-263, 53 tables); "Appendix II: Design configurations and motif frequencies of Late Neolithic ceramics, 1988-1999 campaigns" (pp. 265-301, 35 tables); and "Catalogue" (pp. 303-549, 141 plates [24 in color]). There are no color scales or bars with the color images. Lastly, "Acknowledgments: (pp. 550-551) complete the volume.

Nieuwenhuys's detailed and highly-illustrated volume is much more than a pottery report, as it offers a cogent discussion of past and present views on the origins of the Halaf culture. In addition, he places the excavated ceramics in the broader socioeconomic and symbolic context of Late Neolithic societies in northern Syria. Lastly, by using the concepts of feasting and emulation, his study seeks insights into the patterns of rapid ceramic innovation and change. Readers should also be aware of more recent research and publications, some by the author himself, on Halaf ceramics, especially a recent research report by Nieuwenhuys, Peter M. M. G. Akkerman, and Johannes van der Plicht (2010) "Not so coarse, nor always plain – the earliest pottery of Syria," *Antiquity* 84:71-85; O. P. Nieuwenhuys (2009) "The Late Neolithic ceramics from Shir: A first assessment." *ZORA 2 [Zeitschrift*

für *Orient-Archäologie*, Band 2]: 310-356. (Deutsches Archäologisches Institut Orient-Abteilung); and O. P. Nieuwenhuys and R. Dooijes (2008) "A new life for old pots: Early pottery repairs from 7th millennium Tell Sabi Abyad (Northern Syria)," *Leiden Journal of Pottery Studies* 24:159-170. The book should be of interest not only to specialists of prehistoric pottery but to a wider archaeological audience of New and Old World researchers who deal with painted wares and technological transitions.

Early Iron Age Pottery: A Quantitative Approach: Proceedings of the International Round Table Organized by the Swiss School of Archaeology in Greece (Athens, November 28-20, 2008), Samuel Verdan, Thierry Theurillat, and Anne Kenzelmann Pfyffer (editors). British Archaeological Report International Series S-2254, Oxford: Archaeopress, 2011. 172 pp., 143 figures, 494 references; ISBN-13: 978-1-4073-0821-0, ISBN-10: 1-4073-0821-1, \$87.50 (paper). The editors, Samuel Verdan, Thierry Theurillat, and Anne Kenzelmann Pfyffer (all at the University of Lausanne, Swiss School of Archaeology in Greece), have assembled a volume with 14 case study contributions grouped into three foci: Sanctuaries (five chapters), Settlements (six chapters), and Case Studies: Burials and Survey (three chapters), plus a final chapter by the senior editor. Each article has its own set of bibliographic references and footnotes, and all of the figures (maps, charts, tables, line drawings, and photographs) are grouped at the end of each essay – requiring the reader to flip back and forth from the narrative to the clustered figures -- a bit cumbersome. There is no index.

The monograph begins with a "Foreword" by Karl Reber, Director of the Swiss School (p. 5), and an "Introduction" by Samuel Verdan (pp. 7-10, 28 references, 10 footnotes). In the latter, Verdan comments that the Swiss School of Archaeology in Greece has conducted excavations in Eretria since 1964 in collaboration with the 11th Ephorate of Prehistoric and Classical Antiquities. These campaigns produced vast quantities of Geometric pottery sherds from Early Iron Age vases and by 1998 required a revised typology for Eretrian Geometric pottery initially undertaken by Samuel Verdan, Anne Kenzelmann Pfyffer, and Claude

Léderrey in 2008. Verdan and 18 other European colleagues met in a Round Table session in Athens in November 2008 to discuss various approaches to sherd quantification and ultimately produce a set of quantification guidelines. This monograph includes the presentations and those guidelines. The editors comment that quantitative approaches in "ceramology" are gaining ground in excavation reports, archaeological publications, and thematic studies. They point out that a wide variety of quantitative methods are being employed depending on the researchers' theoretical premise, the type of material which is examined, the context of discovery and the questions that are addressed. They might have added to this list the academic and field training they received as students. Verdan noted that the case studies informed the guidelines and that only a few publications provide accurate figures on ceramic counts, and that assemblages are often quite small for statistical purposes. He also comments on the selection of the Early Iron Age as a focus of the Round Table, and discusses quantitative approaches used outside of Greece and in Greece. A typographical error occurs on p. 7: Early Iran Age (EIA) should be Early *Iron* Age.

I shall review briefly each chapter. Quantitative methods to be reviewed include sherd counts, sherd weights, AFC (Aggregate Feature Counts), EVE (Estimated Vessel Equivalents), KDE (Kernel Density Estimation), and MNI (Minimum Number of Individuals). The first of the three foci concerns ceramics excavated from "Sanctuaries" (five contributions). "Isthmia and beyond. How can quantification help the analysis of EIA sanctuary deposits?" by Catherine Morgan (pp. 11-18, 32 references, 32 footnotes). The author addresses issues of quantification arising from her study of ceramic assemblages at Early Iron Age sanctuaries, particularly those from older excavations. The chapter focuses on Late Bronze and Early Iron age ceramics from the sanctuary of Poseidon at Isthmia published by Morgan in *Isthmia III* (Princeton: Princeton University Press, 1999) and the use of EVE. "Approaching aspects of cult practice and ethnicity in Early Iron Age Ephesos using quantitative analysis of a Protogeometric deposit from the Artemision" by Michael Kerschner (pp. 19-24, 2 figures, 38 references, 55 footnotes). Kerschner focuses on the method of recording and

quantifying ceramics developed at Ephesos and the Early Iron age deposit from the Artemis sanctuary. He considers the basic conditions that determine the processing of the pottery and attempts to reconstruct the stratigraphy of an arbitrary excavation. The chapter emphasizes the role of rim fragments and “brokenness” in quantifying a ceramic assemblage and there is a useful discussion on criteria for defining a diagnostic piece. Quantitative analysis is applied to questions of cult practices and ethnic aspects of Ephesos during the period of Ionian migration. “Development of a ceramic cultic assemblage: Analyzing pottery from Late Helladic IIC through Late Geometric Kalapodi” by Ivonne Kaiser, Laura-Concetta Rizzotto, and Sara Strack (pp. 29-44, 18 figures, 43 references, 21 footnotes). The authors present their initial results of the quantitative assessment of pottery from the Late Bronze and early Iron Age levels from the sanctuary at Kalapodi in Phokis. A basic sorting and recording method is reviewed which, they state, can be used for the quantification of highly fragmented sherd assemblages. A variety of quantitative methods (count, weight, EVE, and MNI) are employed in their attempt to reconstruct past human behaviors, for example, that the site was initially used as a meeting place for local inhabitants who gathered for “convivial meals.” At the transition to the Late Geometric period, the site function changed to emphasize bronze votives and cult activities that included drinking rituals and holocaustic sacrifice. “Erfahrungsbericht of application of different quantitative methods at Kalapodi” by Sara Strack (pp. 45-60, 21 figures, 41 references, 13 footnotes). Ceramics and contexts from Late Bronze and Early Iron age levels at Kalapodi were employed to examine a range of quantitative methods (count, weight, AFC, EVE, and MNI) to assess comparability, applicability, and ease of use in a highly fragmented sherd assemblage. “No method was found to be unproblematic” (p. 45) and the author comments on the methods and their advocates and opponents. A comparison of data sets illustrates that the quantitative methods are roughly equivalent; suggesting that the quantitative approach best suited for each assemblage can be selected while retaining intersite and interperiod comparability. She also examines the effects of sample sizes and the issue of statistically significant data. “The Early Iron Age sanctuary at Olympia: counting sherds from the

Pelopion excavations (1987-1996)” by Birgitta Eder (pp. 61-65, 2 figures, 11 references). An analysis of the Early Iron Age pottery from the sanctuary is used to understand the chronology of cult activities at the site. The vessel shapes suggest a predominance of drinking vessels and fewer pouring vessels and kraters used for mixing wine. Hence, communal drinking was a part of festival activities at the early sanctuary.

Ceramic excavated from “Settlements” (six contributions) forms the next set of presentations. “Laire du pilier des Rhodiens à Delphes: Essai de quantification du mobilier” by Jean-Marc Luce (pp. 67-75, 15 figures, 7 references, 2 footnotes). The author focuses on the statistical analysis of ceramics excavated 1990-1992 from the Rhodian Pillar area at Delphi published by Luce and colleagues in *Fouilles de Delphes II* (2008). The current report allows Luce to describe in detail the advantages and disadvantages of the statistical methodology, namely, MNI. Corrections using vessel belly fragments were more frequent than anticipated and the he discusses the effects of fine-sieving to recover tiny sherds. A two-part typology is reviewed: one focused on differentiating different productions, the other on vessel uses and functions. “A new approach in ceramic statistical analyses: Pit 13 on Xeropolis at Lefkandi” by David A. Mitchell and Irene S. Lemos (pp. 77-88, 21 figures, 15 references, 7 footnotes). The analysis of materials from a large pit excavated at Lefkandi in Euboea demonstrates how Kernel Density Estimation (KDE) may be used to provide a refined chronological profile of ceramic assemblages. The authors consider the rationale behind the choice, construction, comparison, and interpretation of the profiles in relation to other excavated pits at the site. “Households and workshops at Early Iron Age Oropos: A quantitative approach of the fine, wheel-made pottery” by Vicky Vlachou (pp. 89-96, 9 figures, 33 references, 26 footnotes). The Geometric pottery from this site in Attica comes from well-defined stratigraphic contexts. She focuses on wheel-made ceramics from two distinct buildings (I and IET), the first a household and the second a workshop that hosted multiple activities including metalworking, and employs MNI and classifies vessel shapes, types, and decoration. “Counting sherds at Sindos: Pottery consumption and construction of identities in the

Iron Age” by Stefanos Gimatzidis (pp. 97-110, 10 figures 61 references). The excavations and analysis of pottery from Sindos, located in Central Macedonia, yielded 16 layers of stratified ceramics which the author assessed in terms of technological and typological classifications. Rim Sherd Count was the method selected for the statistical analysis and the results demonstrated innovations in wheelmade pottery manufacture in Phase 7 of Late Geometric period Ia and an increased rate of ceramic imports from central Greece as well as the appearance of new, local-produced wares. Relationships between Greece, Italy, and Thrace are also reviewed. Gimatzidis demonstrates that these changes were universal rather than local phenomena and correlates with the period of a substantial Greek colonization movement. “Analyse quantitative du mobilier céramique des fouilles de Xombourgo à Ténos et le cas des supports de caisson” by Jean-Sébastien Gros (pp. 111-117, 5 figures, 18 references, 9 footnotes). The quantification of pottery from this site focuses on a particular cooking stand that appears in great numbers and dates to the Early Iron Age. The author also compares the data with that from the site of Lefkandi and infers that these stands are linked to funerary ritual meals and that cooking stands as well as cooking pots were not used exclusively in domestic contexts. “Defining a typology of pottery from Gortyn: The material from a pottery workshop pit” by Emanuela Santaniello (pp. 119-127, 7 figures, 13 references). A “workshop pit” on the Profitis Ilias hill at Gortyn lacked a stratigraphic sequence and well-dated pottery imports. She examines methodological issues, testing the homogeneity of the assemblage, defining the typology and chronology, and uses MNI to illustrate changes on the production of pottery dating to the early Archaic period.

The third group of papers, “Case Studies: Burials and Survey” includes three contributions. “Quantification of ceramics from Early Iron Age tombs” by Antonis Kotsonas (pp. 129-138, 9 figures, 61 references, 1 footnote). The focus of the paper is the quantification of ceramics from Cretan tombs and uses of quantitative analysis in the interpretation of funerary contexts. The author points out that quantitative approaches should be included in all publications of pottery from burial assemblages and outlines considerations that need to be taken into

account in quantifying the data. A subsequent section of the chapter presents a case study on urns from Early Iron Age Cretan tombs in which the author challenges the interpretation that these were “family” tombs and he considers alternative interpretations. “Quantitative analysis of the pottery from the Early Iron Age necropolis of Tsikalario on Naxos” by Xenia Charalambidou (pp. 139-147, 6 figures, 48 references, 43 footnotes). The paper focuses on the “in progress” analysis of pottery from this necropolis which is leading to a better understanding of production and consumption patterns and the similarities and differences between the necropolis in inland Naxos and burial sites in the main town of Naxos (Chora). “Finding the Early Iron Age in field survey: Two case studies from Boeotia and Magnesia” by Vladimir Stissi (pp. 149-162, 11 figures, 41 references, 10 footnotes). In this interesting paper, the author considers the issue of an apparent absence of Early Iron Age materials outside central places. He reviews two survey projects, one around Halos in Thessaly and a second at Tanagra in Boiotia, where much Early Iron Age material has been found. Stissi notes that habitation remains are scarce because of overbuilding, that material may be missed because some areas were not selected for survey, and/or funerary landscapes were not completely mapped. The hill of Agios Konstantinos was one of the loci from which the town of Tanagra was formed in the late 7th century – when the inhabitants moved, the cemeteries remained in use, possibly to maintain a link with the place of origin.

In the final contribution, “Pottery quantification: Some guidelines” by Samuel Verdan (pp. 165-171, 7 figures, 4 references, 24 footnotes), the senior editor reviews the methodologies of pottery quantification under five headings: 1) selection of assemblages (quantity of pottery, archaeological context, excavation methods, and homogeneity of the materials); 2) classification (categories, families, shapes, types, and decoration); 3) basic quantification (sherd counts before mending); 4) elaborate quantification (rim EVEs and the calculation of MNI, state of preservation, data aggregation, simplicity of measurement, and implementation); and 5) the presentation of the quantified data. There is also a very useful “Appendix: Glossary” (p. 72); 34 terms are defined

in five languages: English, French, German, Greek, and Italian.

Although these presentation focus on the Early Iron Age and Greece, there are several very useful presentations in this monograph that can benefit any archaeologist working with quantities of ceramic material anywhere. The contributors and editors should be congratulated for having met in a Round Table and published these chapters in a timely manner. The illustrations are superb and the tables and quantified data sets are clear and readable.

Eastern Desert Ware: Traces of the Inhabitants of the Eastern Deserts in Egypt and Sudan during the 4th-6th Centuries CE, Hans Bernard, British Archaeological Reports International Series S-1824, Oxford: Archaeopress, 2008. iv + 246 pp., 93 figures (5 in color), 42 tables (1 in color), 12 appendices, references, and index. ISBN-13: 978-1-4073-0310-9, ISBN-10: 1-4073-0310-4, \$125.00 (paper). David Brown Book Company currently has this monograph on sale for \$100.00. This monograph provides the first comprehensive description of a small corpus of ceramic vessels, now defined as Eastern Desert Ware (EDW). The vessels that comprise this corpus are hand-made cups and bowls, shaped without the use of a potter's wheel, with proportionally thin walls and well-finished surfaces. Larger vessels and closed forms do occur very sporadically, although these forms may so far have escaped recognition. Many of the outside and several inside surfaces of the vessels are burnished and decorated with geometrical patterns impressed or incised in the unfired clay. These patterns are often remarkably asymmetric and frequently enhanced by a white inlay or a partial red slip. Eastern Desert Ware has been found in archaeological contexts predominantly dated to the 4th to 6th centuries CE, by associated ceramics, coins, and radiocarbon analysis, in the Nile Valley between the Fifth Cataract, just north of where the Atbara enters the Nile, and the First Cataract near Aswan, as well as in the desert to the east, between Quseir and Port Sudan, an area of roughly 350,000 km.

The volume is divided into six chapters accompanied by 12 appendices, a "List of Figures and Tables" (pp. 218-222), "Acknowledgements" (p. 223), "References" (a total of 349, pp. 224-235), and a

double-column "Index" (pp. 236-246) conflating topics and proper nouns. The 12 appendices are documented below. "Chapter One: Historical Background of the Eastern Desert and Eastern Desert Ware" (pp. 1-18, 11 figures, 4 tables). Barnard provides a brief context documenting the history of research on EDW, a history of the Eastern Desert, migration routes, historical sources (see Also Appendix III), and information on "pottery and people" of the Eastern Desert. "Chapter Two: The Macroscopic Description of Eastern Desert Ware and its Comparison with Associated Pottery Material" (pp. 19-20, 18 figures, 7 tables). There are 290 specimens in the sample, including sherds and complete vessels (see also Appendix V). The author considers recording methods, and the classification of forms, decoration, and fabric (elaborated in Appendices IV), comparisons with associated ceramics, and a discussion of Nubian hand-made pottery (pp. 29-31). An analysis of the macroscopic data, special features, and production tools (pp. 31-38) is supplemented with information from Appendix IV. Color Figure 2-5 depicts fabric fresh breaks.

"Chapter Three: The Provenance of Eastern Desert Ware as Suggested by the Chemical Composition of the Fabric of the Vessels" (pp. pp. 41-64, 14 figures, 4 tables). Barnard documents the geology of the region (augmented by Appendix VI), describes the clays used by potters (four are documented) and the fabrics (n = 15 in the Vienna System) reviewed. About 90% of the EDW vessels in this study were made of "an orange to rusty-red fabric with many, poorly sorted [quartz and feldspar] inclusions" (p. 26, 43). Thin section microscopy on 139 specimens of EDW, apparently done in-house by Barnard, is reviewed (see also Appendix VIII) but the discussion of the methodologies and procedures is basic and lack detail. The elemental composition analysis by LA-ICP-MS on 141 vessels is next reviewed (pp. 45-51). The study was conducted by Hector Neff at the IIRMES (Institute for Integrative Research in Materials, Environments, and Societies) facility at California State University Long Beach. Archaeological provenance and hypothetical production areas are discussed (pp. 59-62), with "no possible source areas for Eastern Desert Ware have yet been identified" (p. 63) and Barnard discusses archaeological association and geological source

materials. Figures 3-1 and 3-2, microphotographs of inclusions in thin sections, are in color. “Chapter Four: The Use of Eastern Desert Ware as Suggested by Lipid Residues in the Walls of the Vessels” (pp. 65-82, 12 figures, 5 tables). Organic residue analysis is a relatively new technique (ca. 30 years old) when applied to archaeological materials. Barnard discusses knowledgeably organic residue analyses and their importance of lipid research in archaeology, fatty acid rations, biomarkers and biochemical analyses. Organic residues include a broad range of materials that can be analyzed at a macro-, micro- or molecular level. They represent the carbon-based remains (in combination with H, N, O, P and S) of fungi, plants, animals and humans, and the author has expertise in this analytical technique; see Hans Barnard and J. W. Eerkens (eds.), *Theory and Practice of Archaeological Residue Analysis*, British Archaeological Reports International Series S-1650, Oxford: Archaeopress, 2007. In the current volume, Barnard details the importance of Gas Chromatography-Mass Spectrometry (GC-MS), and reviews materials, sample preparations, and analytical methods prior to a discussion of general observations (pp. 71-74) results (pp. 74-75), and “selected case studies” (pp. 75-82). He concludes that lipid residue analysis of EDW sherds confirm that such residues were preserved; hence, the vessels were most likely used for food rather than for water or as grave goods. EDW cups contained cereals, vegetable or vegetable oils, while bowls were used for meat and fish dishes. He comments that the low number of possible fish residues is “remarkable” given the proximity of sites to the Red Sea, and presents other results of the GC-MS analyses.

“Chapter Five: The Eastern Desert and the Production of Eastern Desert Ware” (pp. 83-102, 12 figures, 3 tables). The geology and geography of the Eastern Desert are characterized and historical sources noted. The Beja (pp. 86-92), an amalgam of tribes and clans, are multi-resource nomads (pastoral, hunting, and gathering) according to Barnard, who provides a basic ethnographic assessment of their foodways (including the preparation of coffee), material culture, and dwellings. Modern and ancient desert dwellers are also discussed and nomadic pottery production detailed (pp. 93-98) and he suggests a *chaîne*

opératoire (pp. 98-99, Table 5-2) in which he considers vessels as a concept, as a creation, as object, and as a tool. Interestingly, broken vessels are drilled and stitched together rather than using adhesives to repair them (something I also observed ethnographically in Afghanistan in the 1960s). Lastly he notes that “pottery ≠ people” (p. 99) and considers motives for nomadic pottery utilization and barriers to nomadic pottery production. In “Chapter Six: Interpretative Summary and Conclusions” (pp. 103-115, 2 tables), the author considers explanatory models, the analytical data on EDW, interpretations, and the “archaeology of mobility.” (Bernard and Willeke Wendrich have edited a volume on this topic: *The Archaeology of Mobility: Old World and New World Nomadism*, Los Angeles: Cotsen Institute of Archaeology at UCLA, 2008, based on papers presented at two Cotsen meetings held in 2004). A significant finding in the volume under review is that the sherd fabrics derive from several geologically distinct sources, none of which are Nile clay, and that EDW fabrics do not “fit” the 15 fabrics identified within the Vienna System. Indeed, EDW seems to be closest to contemporary Nubian hand-made pottery. Vessel forms (cups and bowls) were associated with particular foodstuffs. Based on the available evidence, the pottery identified as EDW was made and used during the 4th to 6th centuries CE by multi-resource pastoral nomads comparable to one or more tribes of the Beja federation today (p. 114).

The appendices are next briefly described. “Appendix I: Initial Research Questions and Preliminary Answers by Selected Experts” (pp. 116-126). Barnard posed 14 questions and asked 14 “experts” to respond. “Appendix II: List of Sites at Which Eastern Desert Ware has been Described (1935-2002)” (pp. 127-131); 18 sites are documented. “Appendix III: Historical Sources on the Blemmyes, the Beja, the Magabaroi and the Troglodytes” (pp. 132-141, 6 tables); there are 68 sources for the Blemmyes and collectively 20 for the Beja, the Magabaroi and the Troglodytes. “Appendix IV: Classification System for Eastern Desert Ware by Form (H) and Layout (D)” (pp. 142-147, 3 tables) . “Appendix V: Catalogue of the Eastern Desert Ware Sherds and Vessels in this Study” (pp. 148-192, 18 figures, 2 tables); all 290 specimens are described and illustrated. “Appendix

VI: Outline of the Geology of the Eastern Desert” (pp. 193-195, 1 figure and 1 table, both in color). “Appendix VII: Clay Minerals” (pp. 196-199, 5 figures, 7 tables); a basic primer on the topic. “Appendix VIII: Thin Sections of Eastern Desert Ware: (pp. 200-201, 1 figure in color); 130 specimens are characterized. “Appendix IX: Chemical Composition of Selected Sherds” (pp. 202-204, 2 figures); eight specimens are detailed and there is a tabulation of 44 specimens studied by LA-ICP-MS. “Appendix X: Biochemical Glossary” (pp. 205-211); 316 terms are defined in this very useful supplement to Chapter Four. “Appendix XI: Open Fire Temperature Measurements” (pp. 212-216, 4 figures, 4 tables); temperature readings by K-type thermocouple are reported for open wood fire, continuous wood fire, and electric pottery kiln. “Appendix XII: Preliminary Reports on Eastern Desert Ware (2002-2008)” (pp. 217); 13 written and 15 oral presentations, all by Bernard, are listed.

Certainly, this monograph presents a comprehensive assessment of EDW ceramics dated to the 4th to 6th centuries CE. Data are presented on the history of research, the regional geology and geography, specimens used in the analyses are characterized, and macroscopic, microscopic, chemical composition via LA-ICP-MS, and GC-MS lipid residue data and interpretations presented before explications using ethnoarchaeological, *chaîne opératoire*, and other paradigms. This holistic approach to analysis is notable and the author is to be congratulated for preparing this splendid monograph.

Byzantine to Modern Pottery in the Aegean: 7th to 20th Century: An Introduction and Field Guide, Joanita Vroom. Utrecht, The Netherlands: Parnassus Press (an imprint of Erven J. Bijleveld, Publishers), 2005. 224 pp., 13 figures (288 total illustrations), 7 tables, ISBN-10: 9061314410, ISBN-13: 978-9061314417, \$60.00 (paperback). David Brown Book Co. had a few copies in stock in December 2011 but it is generally out-of-print (used copies on the Internet are \$310.00 and up). Although dated 2005, this highly illustrated volume became available on 1 March 2006 and provides a general introduction to Medieval and Post-Medieval ceramics in the Aegean and serves as a field guide to the neglected area of Eastern Mediterranean

archaeology after the Roman era. The author holds a doctorate and her thesis, *After Antiquity: Ceramics and Society in the Aegean from the 7th to the 20th Century A.C.: A Case Study from Boeotia, Central Greece* (412 pp., 187 figures, 5 maps, 2003; published in the Archaeological Studies Series 10, Leiden University, 2003, € 40): http://findarticles.com/p/articles/mi_hb3284/is_307_80/ai_n29259234/ provided a foundation for this volume which she prepared as a Post-doctoral Research Fellow at the Institute of World Archaeology, University of East Anglia, Norwich, UK and was supported financially by the Packard Humanities Institute (USA) and Butrint Foundation (UK). Vroom later moved to the Department of Archaeology, University of Sheffield, and is now at the Amsterdam Archaeological Centre, University of Amsterdam.

The volume begins with a “Preface” (pp. 7-8, 1 figure) prior to two substantive sections, “Part I: Byzantine to Modern Pottery in the Aegean: An Outline” (pp. 11-28, 5 figures, 1 table) followed by “Part II: Byzantine to Modern Pottery in the Aegean: A Survey” (pp. 30-199, 4 tables, 282 figures). Supplementing these parts are a “Glossary” (pp. 200-204,) with 52 terms (*alla porcellana* to waster) and a “Selected Bibliography” (pp. 205-209) with seven divisions providing essential literature for each period: “General” (8 entries), “Technical” (2), “Early Byzantine” (25), “Middle Byzantine” (15), “Late Byzantine” (22), “Turkish-Venetian” (10), and “Early Modern” (11). There are also lists of tables and figures (pp. 210-221), an “Overview of All Wares” (pp. 222-223),” and a short biography, “About the Author” (p. 224).

“Part I: Byzantine to Modern Pottery in the Aegean: An Outline” (pp. 11-28) has eight components” “Introduction” (p. 11, 1 figure) and “Description of the Wares” (pp. 12-13, 1 figure), the latter of which follows a basic format for each of the 76 wares to be detailed: name; alternative names; fabric (following Peacock and Williams *Amphorae and the Roman Economy*, 1986, for fabrics and Munsell 1970 and Pantone for color designations); surface treatments (burnishing, combing, slipping, washing, and glazing); decoration (applied, incised, impressed/stamped, painted, and slip-painted): shape (following *A Guide to the Classification of Medieval*

Ceramic Forms, 1998 ed.); origin (provenance); distribution; date range; and variants. Black-and-white drawings follow the color codes recommended by English Heritage. In “Problems of Chronology” (pp. 15-16, 1 table) she discusses six periods (adding “Modern” since the 1950s. “Main Shapes” Table Wares and Kitchen Wares” (pp. 18-21, 3 figures) defines 10 vessel parts, 14 table ware shapes, and 10 kitchen ware shapes. The “Map of the Eastern Mediterranean” (pp. 22-23, with 53 sites), “Map of the Aegean” (pp. 24-25, with 97 sites), and “Key to Identification of Byzantine and Modern Pottery” (pp. 26-28, with eight types) conclude Part I. The discussion of problems in chronology, the time-line, and overview of the major shapes of table wares and kitchen wares in the Aegean are appropriate, well-written, and readably by ceramic specialists as well as a general audience.

“Part II: Byzantine to Modern Pottery in the Aegean: A Survey” (pp. 30-199, 4 tables, 282 figures) is divided into five sequential chronological units covering the period from the 7th to mid-20th centuries and describes 76 wares. The discussion on the “Early Byzantine Period (ca. 7th-9th centuries)” (pp. 30-65, 60 figures, 1 table) documents 17 diagnostic wares which include: Red Slip Ware from North Africa (= African Red Slip Ware), West Turkey (= Phocaeen Red Slip Ware), Cyprus (= Cypriot Red Slip Ware), and Central Greece (= Askra Ware); Painted Wares from Greece and Crete; Plain Ware (unglazed jugs); Unguentaria; “Slavic Ware”; Ceramic Beehives; Amphorae: Late Roman types 1 through 5/6; Globular Amphora; and Early Plain Glazed Ware in white fabric (= Glazed White Ware I) and in red fabric. The “Middle Byzantine Period (ca. 10th-late 12th/early 13th centuries)” (pp. 66-105, 62 figures, 1 table) details 18 diagnostic wares. These include: Fine Orange-Red Burnish Ware; Unglazed Incised Ware; Plain Glazed Ware in red and grey fabrics: Plain Glazed Ware in white fabric (= Glazed white Wares II-V); Polychrome Ware; Slip-painted Ware; Green and Brown Painted Ware; Fine Sgraffito Ware; Painted Fine Sgraffito Ware; Incised and Slip-painted Ware; Incised Sgraffito Ware; Champlévé Ware; and Amphorae: Günsenin types 1 through 4 and Oranto type 1-2. For the “Late Byzantine/Frankish Period (ca. 13th-mid 15th centuries)” (pp. 106-137, 57 figures, 1 table) Vroom considers 16 diagnostic wares: Zeuxippus Ware and

Ware Subtypes; Monochrome Sgraffito Ware (from Corinth?); Monochrome and One Colour Sgraffito Ware (from Thessaloniki); Monochrome (Brown and Green) Sgraffito Ware (from Serres, Mikro Pisto, and Cyprus); Elaborate Incised Ware; Slip-painted Ware; Proto-Maiolica; Polychrome Lead-glazed Ware type RMR; Metallic Ware; Roulette Ware; Spanish Lustre Ware; and Unglazed Cooking Pots.

Her presentation on the “Turkish/Venetian Period (ca. late 15th-18th centuries)” (pp. 138-177, 62 figures, 1 table) focuses on 16 wares including Monochrome Sgraffito Wares from Italy; Polychrome Sgraffito Wares from Italy; Polychrome (Brown and Green) Sgraffito Wares from Greece; Maiolica from Italy; Maiolica from Greece; Monochrome Glazed Wares; Slip-painted Wares; Painted Wares; Miletus Ware; Iznik Ware; Porcelain; Polychrome Marble Ware; Polychrome Painted Maiolica Ware (= Pesaro ware); Kütahya Ware; Tobacco Pipes; and Unglazed Domestic Ware. Lastly, Vroom reviews the “Early Modern Period (ca. 19th-mid-20th centuries)” (pp. 178-199, 41 figures, 1 table), commenting on 9 wares: Çanakkale Ware; Painted Ware from Grottaglie and/or Corfu; Slip-painted Ware from Didymoteicho and/or Dardanelles; Transfer Printed Wares from Crete, Chalkis, or Thasos; Glazed Domestic Wares from Siphnos; Polychrome Painted Terracotta from the Eastern Aegean; Storage Jars from Koroni; and Drip-painted Ware from Marousi, Attica.

Scholars of history, archaeology, and ceramics as well as students and interested members of the public will find here a well-written and well-organized overview and a valuable handbook and reference work on Post-Classical ceramics in the Aegean region. The volume provides detailed descriptions of the most significant wares from the Early Byzantine, the Middle Byzantine, the Late Byzantine/Frankish, the Turkish/Venetian, and Early Modern periods. Vroom, who took many of the photographs herself, points out that this is “the book that I wish had existed when I started my research into Medieval and Post-Medieval pottery in the Aegean” (p. 7). This is an extremely valuable handbook and will hopefully be updated from time to time. The color images add greatly to the splendid descriptions and she is to be commended for preparing this important monograph.

Bazaar Politics: Power and Pottery in an Afghan Market Town, Noah Coburn. Stanford Studies in Middle Eastern and Islamic Societies and Cultures. Stanford, CA: Stanford University Press, 2011. xi + 254 pp., 6 figures, 2 maps, bibliography, index, ISBN 978-0-8047-7671-4 (cloth), ISBN 978-0-8047-7672-1 (paperback), \$70.00/\$22.95. This ethnography, the first study published on post-2001 Afghanistan, centers on a single village of craftsmen, predominantly potters, and provides limited information on production and distribution. There is valuable information and thoughtful context provided, but the overwhelming focus is on political anthropology. The author emphasizes local and comparative politics and power struggles, and emphasizes the point that local communities have the means to maintain stability even when the national government does not during periods of insurgency and a quest for peace. Coburn demonstrates how local politics in Afghanistan have shifted dramatically during the post-Taliban period and how strategies of inactivity may lead to a “political theater” that masks tensions and suppresses violent conflict. He examines potter lineages that cooperated politically and economically, and analyzes how groups strive to portray themselves as powerful, while avoiding public and violent conflicts. Simultaneously, the people in the town and government officials perpetuated a fiction of the state as bounded and rational, denying the ambiguous nature of state-rule based upon patrimonial networks. This fiction encouraged international donors (NGOs [Non-Governmental Organizations] and military) to continue to inject aid into the area.

The community of Istalif is located along the Istalif River on the Shomali Plain is a predominantly Tajik village located ca. 35 km north of Kabul on the south side of the Hindu Kush mountain range. It has been is a pottery-making community and a major bazaar (market) town in the region for centuries. Although the village, a community composed of 11 neighborhoods, was razed to the ground by the Taliban in the late 1990s, it has made a comeback. The population of Istalif was ca. 8,500 in 2002 and approximately 60 potters resided and worked in one neighborhood, Kulalan, when Coburn was doing his dissertation field work over a period of 18 months

(first visit summer 2005, primary field work August 2006 to February 2008, plus a visit during the spring of 2009): Noah S. Coburn (2010) *Potters and Warlords in an Afghan Bazaar: Political Mobilization, Masterly Inactivity and Violence in Post-Taliban Afghanistan*, Unpublished Ph.D. dissertation, Sociocultural Anthropology, Boston: Department of Anthropology, Boston University; UMI Number 3411721. The dissertation, directed by well-known Afghanistan expert, Professor Tom Barfield, formed the basis for *Bazaar Politics* but the book is not quite a duplicate. There are distinctions between the dissertation and the book: additional photos (by the author), all footnotes converted to endnotes, and the addition of an index. A Google aerial photo has been replaced by a line-drawn map of the area. The dissertation also includes a tabulation of the types of shops found in the Istalif bazaar (p. 333, Appendix 4, Figure 3; the Table of Contents lists no appendices and Figure 3 should be Table 3). There are 29 “types” of shops; the one with highest numbers are: grocery (n = 47 + 6 “double” shops [two small shops combined into a larger one]), pottery (n = 23 + 9 double shops), 12 gas/wood sellers and (33 “empty/NA/storage”); there are 25 types with fewer than eight shops each. The dissertation also has data on daily traffic patterns – gender; local non-local, foreigner; how visitors arrived, etc. (p. 334, Appendix 5, Figure 4; should be Table 4) -- collected over 21 days June-July 2007. There are differences in the bibliographies: the dissertation has 20 references not in the book and the book adds 9 new citations. In the main, the deletions are to Web site references while the additions are on politics or economics. The Stanford editors also corrected several typographical errors: Canefield = Canfield, and Centilivres = Centlivres.

To my knowledge, there has never been a detailed study published on the craft activities or the bazaar in this community, although it was visited briefly by Charles Kolb in 1965 and 1966 and separately by Frederick Matson in 1968. Mitsukuni Yoshida visited Istalif briefly in the later 1950s or early 1960s; see his *In Search of Persian Pottery* (John M. Shields, trans., 1972), New York, Tokyo, and Kyoto: Weatherhill/Tankosha, pp. 133-136, Figs. 82 and 82. He reported a population of 300 with 25 kilns in operation. Briefly (from my field notes and recollections): The village of Istalif in the mid-1960s

had ca. 450 inhabitants of which 22 were potters, all males, mostly congregated in six or seven patrilineal and patrilocal kin groups situated on the northern side of the community in a single neighborhood called Kulalan. In addition to ceramics, Istalifi made felt-work, gilims, and did woodworking (furniture, architectural elements, etc.). The potters' homes were also the loci of the processing of the raw materials, fabrication of the vessels, kiln firing, and storage of finished products. Sales were at the homes and in family-owned bazaar shops (fewer than 40 shops in Istalif included eight selling pottery and other goods), but the bulk of the production was exported to bazaars in Kabul. Potters' used a kick wheel situated in a pit and the potter would sit on the rim of the pit so that the wheel could be maneuvered and so that the pieces were directly in front of the artisan. Plates, bowls, and candlesticks were thrown from the hump, while clay figurines (men on horseback, fat-tail sheep, and cattle/bullocks; see Yoshida 1972:Fig. 82) were fabricated by hand from the same local clay used to produce the vessels. The workability of the local raw clay (exact source(s) unidentified) is enhanced by the addition of *gal-e lock* (cattail "fluff") from the flowering spikes of genus *Typhus* collected in wetlands along the Istalif River. Round updraft kilns were fired for between five and seven hours to temperatures of 800-850° C with fuel wood, dried brush, and other available combustibles were for both the biscuit and glaze firings. At least 15 kilns were in operation in 1965. A white slip of kaolin and feldspar was applied to most vessels and the figurines before the glaze firing. The predominant glazes are turquoise (a mixture of soda, feldspar, kaolin, quartz, and copper scrap) or green (locally derived from plant ash, copper scrap, and copper ores) but some bowls, dishes, and candlesticks had a cream/buff glaze decorated with red-yellow, green, and blue designs (mostly naturalistic with fewer geometric). Slips and glazes were applied by women in the potters' households. Kiln furniture included tripods (trivets) used for the plates and bowls, the latter fired upside down, leaving scars in the glaze that were "repaired" with the same pigments used for the glazes. By 1974, the community had 80 households and a population of 519 (the number of potters is unknown). There is only one other mention of Istalif in the published literature: Frederick R. Matson (1974) "The Archaeological Present: Near Eastern Village Potters

at Work," *American Journal of Archaeology* 78(4):345-347. Before Coburn's work, the only ethnography of pottery-makers in Afghanistan was Micheline Centlivres-Demont et Pierre Centlivres (1967) "Poteries et potiers d'Afghanistan," *Bulletin Annuel du Musée de l'Institut d'Ethnographie de la Ville de Genève* 10:23-67. Coburn does not cite this important source. An additional resource by Noah Coburn and Ester Svensson (2006) "Rebuilding Afghanistan Pot by Pot: The Turquoise Mountain Foundation and the Potters of Istalif," appeared in *Ceramics Today* http://www.ceramicstoday.com/articles/istalif_potter_s.htm provides an additional perspective on culture change and NGOs. A newer reference is: Ester Svensson, Noah Coburn, and Ustad Honaryar (2010) "Shaping Afghanistan: Traditional Pottery and Economic Reconstruction," in Arley Loewen and Josette McMichael (eds.), *Images of Afghanistan: Exploring Afghan Culture through Art and Literature*, Oxford and New York: Oxford University Press, pp. 228-234 (with four splendid color images), but cite the village population as 50,000 inhabitants. Some recently added video on potting practices is also available: <http://www.youtube.com/watch?v=TeADynapzx0> <http://www.youtube.com/watch?v=7icu1LKjgbM> (accessed 29 December 2011).

There is a meager literature on Afghan and Iranian market systems, and Coburn refers to a two-part report by Louis Dupree (1966) *Aq Kupruk: A Town in North Afghanistan*, South Asia Series Vol. 10, Nos. 9-10, New York: American Universities Field Staff. I assisted Dupree in the data collection at Aq Kupruk, Balk Province, located on the river of the same name, in the summer of 1965; our primary fieldwork that year was the archaeological excavation of three caves and one open-air site. The publications by Dupree and Coburn are the only ones on small, town or village bazaars. There are other bazaar studies from northern Afghanistan – all at Tashkurgan -- a large Tajik town/city with some Pashtuns and Uzbek, located in Samangan Province, 60 km east of Mazar-i-Sharif. It has recently been renamed Kholm and now politically situated in Balkh Province. The relevant publications are: Pierre Centlivres (1970) *Un bazar d'Asie Centrale: Forme et organization du bazar de Tâshkurghân (Afghanistan)*, Thèse présentée à la Faculté des

lettres de l'Université de Neuchâtel pour obtenir le grade de docteur ès lettres, Neuchâtel: Faculté des Lettres, Université de Neuchâtel; available online at http://doc.rero.ch/lm.php?url=1000,40,4,20050509103800-OH/2_these_CentlivresP.pdf and published in revised form: Pierre_Centlivres (1972) *Un Bazar d'Asie Centrale: Forme et Organization du Bazar de Tâshkurghân*, Wiesbaden: Reichert Verlag. The other major source is C.-J. Charpentier (1972) *Bazaar-e Tâshkurghân: Ethnographical Studies in an Afghan Traditional Bazaar*, Uppsala: Almqvist & Wiksell Informationsindustri AB. Both Centlivres (1972) and Charpentier (1972) are cited in Coburn's bibliography but there are no comparisons of the bazaar at Istalif with the one at Tashkurgan (Kholm). A very useful economic study of an urban bazaar by Arang Keshavarzian (2009), *Bazaar and State in Iran: The Politics of the Tehran Marketplace*, Cambridge and New York: Cambridge University Press, characterizes a very different market type, partly traditional (pp. 46-56) but with emphases on the sales of carpets (pp. 188-206), tea (pp. 206-215), and less on china and glassware (pp. 215-220).

There are some changes from my observations in the 1960s to those of Coburn in 2007-2008. His rather brief Chapter 3, "How Making Pots Bound People Together" (pp. 34-49) focuses on pottery production. Coburn mentions the donation of pottery kick wheels by the French and that the French had been involved in the "redesign" of the kick wheels in the late 1960s. I cannot discern if the wheels are similar to the ones I saw in 1965. The production methods with an "informal" division of labor in workshops of 2-8 potters seem not to have changed very much except for the attempt by a Pakistani woman working with a French NGO to introduced non-toxic glazes. A "sodium glass glaze" is now imported from Pakistan. The updraft kilns also appear to be similar (for one kiln, Coburn gives measurements of 6 by 6 feet with a height of 12 feet) and he discusses familial cooperation in stacking of the kiln and the use of cedar wood fuel. There is a minimal discussion about Soviet and Japanese influences (I wish there was more information on this) but provides some interesting data on "start-up costs," including kiln costs and repairs. An imported gas kiln costing \$20,000 was provided by an NGO for the use of women but is not used. (No surprise here.) It is difficult to discern the effects of Istalifi

displacement during the Taliban era and if returning artisans brought back and craft practices from living in Pakistan, but some also went to Kabul. It would appear that Afghan potters had more influence on the Pakistanis.

Coburn's ethnography, written in the past tense, is organized into nine chapters but with "interludes" between the chapters designed "to convey some of the emotions of field work that get lost in more formulaic writing" (p. ix). All of the names of his informants have been changed. The narrative is accompanied by "Notes" (pp. 225-238), "Bibliography" (pp. 239-246) with 127 entries, and an "Index" (pp. 247-254). The initial essay is a "Preface" (pp. ix-xi) with "A Rocky Road" (pp. 1-4) as the first interlude. Briefly, the chapter contents are: "1. Groups and Violence" (pp. 5-16, 38 endnotes). The major topics involve time and place, Istalif's bloody history, and Istalif and the Taliban. Early travel accounts (1504 to 1929) are noted, the strategic location of the community described, maliks ("tribal" elders) and mullahs (chief religious leaders) are differentiated, and he reports that craft industries "thrived" from 1933 through 1978 – under the reign of Zahir Shah. Interlude: "Ethnography and Suspicion" (pp. 17-21). Chapter "2. Social Organization in Istalif" (pp. 22-31, 27 endnotes) focuses on understanding Tajik social organization, the concept of the *qaum*, the politics of flexible boundaries, and society beyond descent groups. *Qaum*, a term used in multiple contexts and associated with non-tribal categories of loyalties, are patrilineal descent groups, generally endogamous, that have ranked occupations; see Fredrik Barth (1959) *Political Leadership among Swat Pathans*, London: Althone Press. The relationship of a *qaum* to professional groups occurs only in certain instances (p. 26). The pottery profession (*kesab*) is more like a guild and has five characteristics: 1) pottery production, 2) marking the pottery, 3) shared social and political hierarchy, 4) specified descent and marriage practices (potter marriages are now both endogamous and exogamous), and 5) a shared mythology. Interlude: "Making Pots" (pp. 32-33). "3. How Making Pots Bound People Together" (pp. 34-49, 8 endnotes). Coburn briefly discusses production: the "birth of a pot," the family that pots together, cooperation between families and the monopoly of knowledge, economic restrictions in

entering the industry. Craft, rather than “industry,” would be a more appropriate term. He points out that potters are one of the most active and influential political groups in Istalif, considers familiar cooperation and integration, the changing *quam* membership, and external influences by the Soviets, NGOs, the French and Japanese (mentioned above). The next interlude is “The Art of Finding a Bargain” (pp. 50-52), followed by “4. How Selling Pots Tore People Apart” (pp. 53-72, 19 endnotes, 3 tables, 6 figures); six black-and-white photographs follow p. 66. The economics of marketing, competition among potters, competition within families, and the politics of cooperation and competition are described. Sales occur in three places: “25 shops” in the Istalif bazaar (the dissertation cites 23 + 9 double shops, p. 333); a few shops on the Kabul to Charikar highway, and in several stores in Kabul (on Chaff Selling Street). Data on the numbers of visitors/shoppers are reported and he also provides information on the kilns, marketing strategies, and business practices.

The final five chapters focus on local and comparative politics and power struggles, and the ability of local communities to maintain stability in the face of an unstable central government. These are valuable discussions but do not deal directly with ceramic production and distribution. Therefore, I shall summarize their contents. Interlude: “Telling Stories” (pp. 73-75). Chapter “5. Leadership Descent, and Marriage” (pp. 76-102, 8 endnotes). Topics include: the role of the *malik* (formal and informal duties), maintaining the *quam* and its limits, the need for external networks and outside support, connections with NGOs, the *malik* and internal networks descent among potters, arranged marriages, the costs of marriage, political tensions and marriage patterns, and marriages, alliances and individual choices (examples of three brothers’ cooperation in the immediate family and the “singing potter,” Nabi Jam). The post-Taliban era has ushered in a great deal of variety in social and marital practices (p. 202) but there is economic and political cooperation among the potters remains strong. Interlude: “Dinner” (pp. 103-105). Chapter “6. Cultural Definitions of Power in Istalif” (pp. 106-141, 30 endnotes). Topics covered include political roles and power, contrasts between *malik* and *mullah*, the cultural definitions of political roles and power,

religious leadership, the formation of a new merchant class, effects of former militia leaders, the not very effective district government and the local police, and the very effective international groups (foreign military and NGOs providing employment). Interlude: “Election Day” (pp. 142-144). Chapter “7. Masterly Inactivity: The Politics of Stagnation” (pp. 145-179, 24 endnotes). Coburn reviews politics and cultural tensions within a civil debate, the lack of political representation, and the political landscape of the bazaar. There are also discussion about tensions and competition in the marketplace, the politics of ownership, land disputes, *qaums* and land, sharing irrigation water, and “masterly inactivity” designed to maintain the status quo. Interlude: “The Director of Intelligence” (pp. 180-181). Chapter “8. The Afghan State as a Useful Fiction” (pp. 182-205, 1 map, 21 endnotes). The author discusses how the “state” is represented and viewed in Istalif, symbols and the state, state authority, states without boundaries, exploiting the lack of boundaries, international perceptions of the state in Afghanistan, and how fiction creates stability. Stability is created by lowering the instances of violence. Interlude: “Paktya – Eighteen Months Later” (pp. 206-207). Chapter “9. Thinking about Violence, Social Organization, and International Intervention” (pp. 208-223). Topics in this interpretive chapter include social organization and violence in Istalif, violence and international intervention, and considering the future of violence in Afghanistan. Political life is “fraught with tension” as the state has limited control, hence kinship ties, and tacit agreements to avoid violence exist. Coburn concludes: “the decision to act violently creates a social and political break” in Istalif. The primary NGO, which Coburn does not name in the book, is the Turquoise Mountain Foundation, which is also engaged in the restoration of the old, traditional bazaar in Kabul. The effects of the French, Pakistani, and Japanese “advisors” on the traditional potters’ craft are unclear. This is a valuable sociopolitical study but limited in its use to ceramic ethnoarchaeology.

Ceramics in America 2011, Robert Hunter (ed.), photography by Gavin Ashworth, Lebanon, NH and London: University Press of New England for the Chipstone Foundation, 2011. xii + 220 pp., 658 illustrations (620 in color), endnotes; ISBN 978-0-

9767344-8-2, \$65.00 (hardbound). The volume is discounted by most on-line booksellers. Rob Hunter is a fellow of the Society of Antiquaries of London and an archaeologist and ceramic historian who lives in Williamsburg, Virginia, and has been the editor of every volume in this annual series now in its eleventh year of publication (reviews of previous volumes may be found in previous "Archaeological Ceramics" columns in the *SAS Bulletin*). *Ceramics in America* is generally considered the journal of record for historical ceramic scholarship in American contexts. The current annual has seven major articles, each with its own references and endnotes, 12 "new discoveries" (pp. 166-194) and six book reviews (pp. 195-209) and a splendid three-column "Index" conflating topics and proper nouns (pp. 210-220). "The Chinese Scholar Pattern: Style, Merchant Identity, and the English Imagination" by Sarah Fayen Scarlett (pp. 2-45, 57 figures, 50 endnotes). This article focuses on images depicted on English tin-glazed plates and vessels produced 1675 to 1695 in London, Bristol, and Southwark. She discusses the mimicry of Chinese and Japanese porcelains and similarities to Dutch copies imported to England from the Continent in 1699. A major popular decorative art of the day was originally called "Squatting Chinese figure" or "Chinese-figure-in-grasses," since renamed "Chinese scholar" (a robed figure sitting in a garden) and is related to blue-and-white (and sometimes with yellow) Ming porcelains. Vessel forms included dishes, jugs, jars, meat pots, posset pots, porringers, ewers, punch bowls, cups, mugs, candlesticks, and flower vases. Some ceramic were imported to the American colonies. The author discusses an aesthetic shift to rococo and the English "imagination" in modifying earlier styles.

"Mind Mud: Ai Weiwei's Conceptual Ceramics" by Garth Clark (pp. 46-74, 27 figures, 28 endnotes). Clark discusses the contemporary Chinese ceramic artist Ai Weiwei who was active in New York City (1983-1993) before returning to China; he was arrested in April 2011 for "unpaid taxes." Weiwei tends to "reuse" ancient ceramic vessels (Neolithic, Bronze, and Iron ages) in his work, among which are "Dropping a Han Dynasty Urn," "Coca-Cola Vase," and "Colored Vases." Clark states the "Ai is the first ceramics star to emerge from China in nearly two centuries" (p. 73). "Ai Weiwei Dropping the Han

Dynasty Urn (Ceramic Works, 5000 BCE-2010 CE" is currently the tile of an exhibition at the Victoria and Albert Museum, London. "Digging up Salem's Golden Age: Ceramic Use among the Merchant Class" by George Schwartz (pp. 75-99, 35 figures [8 are graphs or charts], 60 endnotes). The 1974 excavation by maritime artist Racket Shreve of Capt. Stephen Phillips' 6x5 ft. trash pit (ca. 1804-1805) in Salem, Massachusetts is documented; there were 1,300 ceramic and glass sherds which the excavator used in restoring a number of vessels and deriving minimal vessel counts. It is highly unusual to encounter an undisturbed pre-1730 (and pre-Industrial Revolution) archaeological context. Phillips (1764-1838) was a merchant ship owner and businessman during Salem's "Golden Age" and six major artifact groups are described in detail: 1) Chinese porcelain (117 vessels) representing plates, tea bowls, and saucers made in Canton and Nanking as well as Fitzhugh, England. 2) Pearlware (339 sherds = 72 vessels), mostly transfer-printed and shell-edged pottery from Staffordshire. 3) Creamware (209 sherds = 55 vessels) of Staffordshire dinner plates, bowls, pitchers, and chamber pots. 4) Glass (133 sherds = 71 vessels) mostly wine and rum bottles from England, France, and Germany, plus wine glasses and tumblers. 5) Coarse Earthenware (106 sherds = 40 vessels) produced in New England, notably jars, milk pans, and chamber pots. 6) Utilitarian Stoneware (56 sherds = 26 vessels) including German Westerwald specimens and vessel made in Connecticut and Manhattan (or New Jersey). Schwartz also discusses the "vast" ceramic market of Salem during this time period.

"The States Border Series by Ralph and James Clewes" by Dick Henrywood (pp. 100-110, 15 figures, 3 endnotes). The Staffordshire ceramic industry was a major exporter to North America and the Clews brothers of Cobridge produced a specialized ware, "States Borders Series," for export to America. Fourteen different views are documented and the author has determined that the direct source of the images is *Marshall's Selected Views, in Great Britain* (London: William Marshall, 1855-1828) allowing more precise dating of the pottery. "The Stoneware Years of the Thompson Potters of Morgantown, West Virginia, 1854-1890" by Richard Duez and Don Horvath with Brenda

Hornsby Heindl (pp. 111-137, 60 figures, 30 endnotes). The authors refer to their 2004 *Ceramics in America* article on earthenware produced 1796-1854 and provide an update and expansion on their earlier research on salt-glazed stoneware with inscriptions. The Thompson family included five potters (father and four sons) and the authors review information on clay sources exploited, connections to potters in Pennsylvania, and types of vessels produced -- predominantly crocks and jugs, but also pitchers and jars. Production tools included roulettes, stamps, molds, and "rim ribs." Depictions on the vessels are recounted (animals, birds, and fish) and vessel capacities calculated.

"Ceramic Treasures among Seventeenth-Century Trash: A 1660s Cellar Deposit" by Al Luckenbach and John E. Kille (pp. 138-149, 18 figures, 20 endnotes). Salvage excavations were undertaken 1999-2002 in four dwellings at Homewood's Lot (18AN871), the home of Thomas Homewood, a Quaker planter in St. Margaret's, Anne Arundel County, Maryland. Building A, Feature 30 (a cellar 10x6 ft.) yielded 28 vessels discarded ca. 1665. Among the pottery were tin-glazed earthenware plates and a candlesticks showing Dutch-Delft influences, Rhenish blue-and-grey and brown salt-glazed stoneware, North Devonshire and Staffordshire wares (including Borderware and lead-glazed earthenware), and seven tobacco piped dated 1655-1720. "Cap-Hole Oyster Jars: A Racial Message in The Mud; or Shipping *Ostreidae Crassostrea virginica*" by Ivor Noël Hume (pp. 150-164, 14 figures, 42 endnotes). The author, born in 1927, keeps producing splendid, relevant articles, in this instance, a study of a brown stoneware jar with an unusual cylindrical shape and constricted opening at the top. He recalled travel to a Dutch-built colonial fort in Flag Island, Guyana where similar specimens were unearthed. These containers were labeled: Daniel Johnson, No. 24 Lumber Street, N[ew] York. Research using maps, census data, city directories, and other archives lead to the determination that Johnson was an oysterman and that these were shipping containers for raw oysters (25 per container) preserved in melted butter. Noël Hume also deduced that the containers were made by a free-Black entrepreneur, Thomas Commeraw, in New York City, from 1800 to 1805.

The volume also has 12 brief essays on "New Discoveries" that feature new discoveries and recent research on ceramics of interest to scholars; there are also six book reviews. Briefly, these are "Whatley Teapots in the Western Catskills" by Anthony Bulera Jr. (pp. 166-167, 2 figures, 8 endnotes); "Incorporating The Other: A Seventeenth-Century Virginia Indian Basket Rendered in Clay" by Beverly A. Staube (pp. 168-171, 2 figures, 8 endnotes); "A Domfront (Normandy) Stoneware Pot in Jacobean Virginia" by Bruno Fajal and Taft Kiser (pp. 171-173, 2 footnotes, 9 endnotes); "A Vision of Technological Wonder in 1830s California" by Glenn Farris (pp. 173-174, 1 figure, 2 endnotes); "The Jolly Young Waterman at Fort Johnson, Charleston, South Carolina" Carl Steen (pp. 174-76, 3 figures, 3 endnotes); "The Last Dave Pot" by Carl Steen (pp. 174-176, 3 figures, 3 endnotes); "A Dish from Your Alma Mater?" by Angelika Ruth Kuettner ("Planting Pots from Gore Place, Waltham, Massachusetts" by Christina M. Beranek and Rita A. DeForest (pp. 180-184, 4 figures, 14 endnotes); "An Unusual Drabware Strainer from the Chew Site, Anne Arundel County, Maryland" by Al Luckenbach and Diana Edwards (pp. 185-187, 3 figures, 3 endnotes); "Langerwehe Stoneware Vessel from Gloucester Courthouse Jale, Gloucester, Virginia" by William Pittman, David Brown, and Thane Harpole (pp. 187-188, 3 figures, 4 endnotes); "A Tin-glazed Earthenware Salt from Minges Ferry" by Karen K. Shriver (pp. 189-191, 2 figures, 8 endnotes); and Fragments of Forgotten Empires: A French Creamware Bowl from Joseph Bonaparte's Estate at Point Breeze in Bordentown, New Jersey" by Richard Veit (pp. 192-194, 1 figure, 6 endnotes).

The six book reviews are: Barker, David and Steve Crompton (2007) *Slipware in the Collection of the Potteries Museum and Art Gallery*, London: A. and C. Black; reviewed by Paul Courtney, *Ceramics in America 2011*, pp. 195-197. Roden, Peter (2008), *Copyhold Potworks and Housing in the Staffordshire Potteries, 1700-1832*, Cumbria, England: Wood Broughton Publications; reviewed by Neil Ewins, pp. 197-199. Skerry, Janine E. and Suzanne Findlen Hood (2009), *Salt-glazed Stoneware in Early America*, Williamsburg, VA: Colonial Williamsburg Foundation; reviewed by Ivor Noël Hume, pp. 199-202. Tyler, Kieron, Ian Betts, and Roy Stephenson (2008). *London's Delftware Industry: The Tin-*

Glazed Pottery Industries of Southwark and Lambeth, MOLAS Monograph 40, London: Museum of London Archaeology Service; reviewed by Ivor Noël Hume, pp. 202-205. Copeland, Robert (2009), *Manufacturing Processes of Tableware during the Eighteenth and Nineteenth Centuries*, Cumbria, UK: Northern Ceramic Society; reviewed by George L. Miller, pp. 205-207. Lastly, Goodwin, Jonathan and David Barker (2009), *Small Pieces of History: Archaeological Ceramics from Tunstall, Stoke-on-Trent*, Stoke-on-Trent Archaeology Service Monograph 2, Staffordshire, England: Stoke-on-Trent Archaeology Service; reviewed by Timothy B. Riordan, pp. 207-209.

Colour in Glazes, Linda Bloomfield with photographs by Henry Bloomfield. London: A&C Black; Westerville, OH: The American Ceramic Society, 2012. 144 pp., 175 color illustrations. ISBN 978-1-4081-3121-3 and 978-2-57498-324-1, £16.99/\$29.95 (paperback). This volume was published on 15 November 2011 and although designed for serious studio potters, has great value for scholars of ceramics who seek to understand glazes. It is a useful handbook on glazes and glazing that will benefit students of archaeological ceramics and archaeometrists. The presentation on coloring oxides in Chapter 5 is worth the price of the volume alone and the color illustrations throughout this volume are superb (perhaps an understatement).

Linda Bloomfield has dual careers as a successful studio potter but was initially trained as a materials scientist and worked as a scientific researcher and holds a BSc and Ph.D. It is unusual to find a ceramics scholar who is both artist-artisan and knowledgeable about ceramic materials science. Bloomfield began learning the art of pottery with studio potter Vanessa Waller (1981-83) while studying at Dr. Challoner's High School in Buckingham for a ceramics GCE 'O' Level qualification. She became president of the Warwick University Potter Society and continued her tuition with potter, David Jones whilst studying and gaining a BSc First Class Honours in Engineering Science and a doctorate in Materials Science at Warwick University (1983-86). She was a visiting scholar at Massachusetts Institute of Technology (MIT) in Boston and was a ceramic researcher in Tsukuba, Japan and in London. Bloomfield established a

potter's workshop in Stamford Brook, London in 2001 after spending two years as a studio potter in California, where she taught hand building and throwing ceramics and was an Associate Member of Association of Clay and Glass Artists of California. She makes hand-thrown porcelain tableware in simple shapes with tactile satin matt glazes and subtly colored interiors. She sells her work through shops and galleries across the UK and internationally and regularly writes articles for *Ceramic Review*. Web site <http://www.lindabloomfield.co.uk/>.

The book begins with "Acknowledgments" (p. 7) and an "Introduction" (p. 9) followed by ten chapters supplemented by a "Glossary" (pp. 132-133) with 68 entries from "alkali metals" to "vitrify," plus eight appendices, a basic "Bibliography" (p. 148) with 18 references, and a four-column, subject "Index" (p. 144). I shall briefly discuss the content of each chapter. "1. A Brief History of Colour in Glazes" (pp. 11-16, 6 figures) begins with Egyptian glazes 4000 BCE and considers glazed pottery from Mesopotamia, China, Germany, England, and the United States to the 1940s. "2. Principles of Glaze Chemistry" (pp. 17-20, 3 figures) reviews the essential components of glazes, coloring oxides, and glaze recipes and formulae. "3. Glaze Materials" (p. 21-36, 4 figures) silica, alumina, feldspars, secondary fluxes, wood ash, low-temperature fluxes (boric acid and zinc oxides), and frits are the main topics, and there are especially good discussions of mesh sizes for screening and on lead. "4. Base Glazes" (pp. 27-33, 7 figures) focuses on glossy, matte, crystalline, slip, and crater glazes, and incorporates information on Orton cones and temperatures and formulae. "5. Colouring Oxides and Colour Development" (pp. 33-110, 117 figures) is an extremely detailed consideration and color images of glaze raw materials and examples of these glazes on fire vessels. There are 127 formulae accompanied by Orton cone and temperature data. The presentation emphasizes coloring oxides: cobalt, copper, chromium, iron, rutile and ilmenite, manganese, nickel, vanadium, rare earth oxides, and stains; and color development: blue glazes, green and turquoise glazes, purple glazes pink glazes, red and orange glazes, yellow glazes, brown glazes, and white, black and grey glazes.

“6. Mixing Glazes” (pp. 111-114, 8 figures) with a review of weighing, sieving, glaze additives, and health and safety (highly toxic and toxic glaze materials are listed). “7. Applying Glazes” (pp. 115-118, 10 figures) reviews procedures for applying glazes to biscuit-fired wares fired to 1000° C (1832° F). “8. Testing Glazes” (pp. 119-122, 5 figures) has a review of the importance of test tiles and line blends and grids as well as the behaviors of coloring oxides. “9. Firing” (pp. 123-128, 6 figures) considers biscuit and glaze firings and reviews oxidation, reduction, wood and salt, salt glaze colour tests (p. 127), and adjusting glazes to fire at different temperatures. “10. Correcting Glaze Faults” (pp. 129-131, 3 figures) has a valuable discussion on crazing, shivering, crawling, pinholes and blisters. There are eight useful Appendices: “Ceramic Materials List” (pp. 134-135), “Periodic Table” (p. 136), “Glaze Formula Calculation” (p. 137) with 54 materials listed along with chemical formulae and Atomic weights; “Materials Analysis for UK Frits, Clays and Feldspars” (p. 138); “Materials Analysis for US Frits, Clays and Feldspars” (p. 139); “UK and US Materials Conversion Chart” (p. 140); “Stains and Alternative Oxides (for Oxidation)” (p. 140); and “Orton Pyrometric Cone Temperatures” (p. 141) tabulating cones 09 through 14. An additional section provides a list of 19 “Suppliers” (p.142) including companies from both the UK and US.

Traditions céramiques dans la boucle du Niger. Ethnoarchéologie et histoire du peuplement au temps des empires précoloniaux, Anne Mayor, Monograph Series Volume 7, Africa Magna Verlag, Frankfurt a.M., 2011. 352 pp., 132 figures, 21 tables, 8 colour plates, annexes. In French with English chapter abstracts. ISBN: 978-3-937248-25-7, € 35.9, including tax (hardcover). La question des liens entre les cultures matérielles et leurs significations socio-culturelles reste un défi en archéologie. Anne Mayor propose dans cet ouvrage un outil d'interprétation archéologique dans le domaine de la céramique, capable d'approcher les questions d'identités ethnolinguistiques et d'histoire du peuplement dans la Boucle du Niger en Afrique de l'Ouest. Trois approches sont adoptées: 1) Ethnoarchéologie: L'étude de la variabilité actuelle des poteries permet de sélectionner des critères descriptifs pertinents; 2) Historique: La synthèse des données écrites et orales disponibles précise la

profondeur historique des groupes ethniques et les processus responsables de leur formation; 3) Archéologique: L'analyse des vestiges découverts lors des fouilles indique la répartition spatio-temporelle des traditions céramiques. La mise en corrélation des données synchroniques et diachroniques lui permet de construire un modèle d'évolution des traditions céramiques depuis deux millénaires, en relation avec des entités ethnolinguistiques. Une application à la fouille de Dangandouloun (Pays dogon, 7e-12e siècles AD) montre la performance de la démarche pour interpréter les sites protohistoriques régionaux et initie une nouvelle approche de l'histoire des techniques et des peuplements.

The question of links between material cultural and sociocultural meaning remains a challenge in archaeology. In this book, Anne Mayor proposes a tool for archaeological interpretation in the area of ceramic studies, capable of addressing questions of ethnolinguistic identity and the settlement history in the Niger Bend, West Africa. Three approaches have been employed: 1) Ethnoarchaeological: The study of modern variability in pottery enables the selection of relevant descriptive criteria; 2) Historical: The synthesis of available data clarifies the historical depth of ethnic groups and the processes responsible for their formation; 3) Archaeological: The analysis of excavation data indicates the spatiotemporal distribution of ceramic traditions. The correlation of synchronic and diachronic data enables her to construct a model for the development of ceramic traditions over the last two millennia, in relation to ethnolinguistic units. Application to the excavation of Dangandouloun (Dogon Country, 7th -12th centuries AD) demonstrates the effectiveness of the approach in the interpretation of regional Protohistoric sites, and initiates a new approach to the study of the history of techniques and human settlement.

Table des matières/Contents: 1 Introduction; 1.1 Problématique et objectif du travail; 1.2 Contexte méthodologique; 1.3 Contextes administratif et Scientifique; 1.4 Contexte géographique; 2 Les données synchroniques: l'ethnoarchéologie; 2.1 Étude de la variabilité actuelle de la céramique dans le delta intérieur du Niger; 2.2 Les régularités et mécanismes utiles à l'interprétation archéologique; 3

Les données diachroniques: l'histoire 3.1 Introduction 3.2 Bilan historique des formations étatiques précoloniales; 3.3 Bilan ethnohistorique ou la dynamique des peuplements humains; 3.4 Synthèse; 4 Les données diachroniques: l'archéologie 4.1 Introduction; 4.2. Chronologie et caractérisation des occupations humaines; 4.3. Synthèse; 5 Vers une histoire culturelle des traditions céramiques; 5.1. L'expression matérielle des identities; 5.2. Vers une histoire culturelle des techniques de façonnage; 5.3. Vers une histoire culturelle des principaux décors roulés; 5.4. Bilan; 6 Un exemple d'application: l'abri-sous-roche de Dangandouloun; 6.1. Le site et la fouilles; 6.2. Le matériel archéologique; 6.3. Les répartitions stratigraphique et spatiale du materiel; 6.4. Les interprétations fonctionnelles; 6.5. Les interprétations culturelles; 6.6. Conclusion; 7 Conclusion générale; Postface; Bibliographie Annexes; Planches en couleur.

Previous Meetings

5^a Mesa Redonda de Teotihuacan: Teotihuacan: Investigaciones Recientes: Centro y Periferia, Homenaje a George L. Cowgill was held in 23-28 October 2011. There were 62 conferences with presentations by 129 specialists from Mexico, the United States, Japan, Denmark, Spain, France, Ecuador, and United Kingdom who discussed aspects of the center and periphery of the Prehispanic city of Teotihuacan (150-650 CE). The meeting was dedicated to Emeritus Professor George Cowgill from the University of Arizona who has worked in the urban center of Teotihuacan for nearly 50 years and has mentored nearly a dozen students whose dissertations or thesis related to the city, ceramics, and lithics. The meeting was divided into five major themes: 1) Grandes monumentos y planificación de la ciudad; 2) Barrios y periferia (el valle de Teotihuacan); 3) Grupos sociales: oficios, grupos étnicos y jerarquías; 4) Conservación, restauración y difusión del patrimonio arqueológico en Teotihuacan; y 5) Estudio de materiales. Additional information is available at <http://mesateotihuacan.cultura-inah.gob.mx/>.

The Society for Historical Archaeology annual meeting was held in Baltimore, Maryland, USA, 4-8 January 2012. A highlight for ceramic studies: The 2012 J. C. Harrington Medal in Historical

Archaeology was presented to George L. Miller “for his lifetime contributions and dedication to historical archaeology. Miller has published many significant articles in *Historical Archaeology* on ceramic manufacture, distribution, and commerce and the concept of Mean Ceramic Dates. Congratulations to George – a well-deserved honor.

Twenty-three papers concerned ceramics, most scattered through a large number of sessions. An electronic version of the complete program with abstracts is available on the SHA Website www.sha.org. Hard copies are available at <http://www.lulu.com/product/paperback/sha-2012-conference-program/18754524> for \$12.88.

The Archaeological Institute of America annual meeting was held in Philadelphia, Pennsylvania, USA, 5-8 January 2012. There were more than 200 events (oral sessions, symposia, forums, and poster sessions) and more than 800 presenters among 2,800 attendees. Thursday evening's public lecture at the University of Pennsylvania was “Uncorking the Past: Ancient Ales, Wines, and Extreme Beverages” with Patrick McGovern. He noted that the story of humanity's ongoing quest for the perfect intoxicating drink may be fundamental to the human condition itself. McGovern concluded that whether its goal is medicinal, religious, social, or inspirational, the consumption of fermented drinks throughout history, from beverages dating from ancient China to boutique wines of today, complements and completes our human celebrations, feasts, holidays, and ceremonies. Dogfish Head ancient ales were served at the private reception afterwards. Four sessions were devoted to ceramics and there were additional scattered paper as on the subject in other sessions.

The Pomerance Award for Scientific Contributions to Archaeology was awarded to Emeritus Professor David P. S. Peacock, best known for his work on bridging geological methods with pottery and lithic analysis. He earned his BSc. and Ph.D. in geology at the University of Saint Andrews and in 1974 was elected Fellow of the Society of Antiquities. He has been at the University of Southampton since 1968, and was appointed as Deputy Dean (Research) of Arts at the university in 2000. In 2010, he was awarded a Leverhulme Emeritus fellowship, and in

2011, was awarded the Kenyon Medal for Classics and Archaeology by the British Academy. He is the author of the celebrated *Pottery in the Roman World: An Ethnoarchaeological Approach*, London: Longman Group (1982) and editor of *Pottery and Early Trade: Characterization and Trade in Roman and Late Ceramics*, London: Academic Press (1977). He was also honored in Session: 3D: "D. P. S. Peacock's Model for the Organization of Roman Pottery Production: Impact and Responses over Three Decades," a colloquium with six papers organized by J. Theodore Peña (University of California, Berkeley) and Roberta Tomber (British Museum). David Peacock responded to these presentations.

The full AIA Program is available in pdf format at: <http://aia.archaeological.org/webinfo.php?page=10300>

Forthcoming Meetings

The Society for American Archaeology annual meeting is scheduled 18-22 April 2012 in Memphis, Tennessee, USA. As mentioned in the *Bulletin* 34(4):22-23, this meeting includes a symposium: "Honoring Dean E. Arnold on his Supposed 'Retirement'" organized and chaired by Charles C. Kolb (National Endowment for the Humanities). It is scheduled for Saturday, 21 April at 8:00 am. Session Abstract: "Friends, colleagues, and admirers of Dean E. Arnold, Professor of Anthropology at Wheaton College, Illinois, for more than 36 years, come to honor him and the seminal ethnographic, ceramic ethnoarchaeological, and archaeometric research and publications he has created. His field work in Mexico, Peru, and Bolivia focusing on the organization and technology of ceramic production, is exemplified by longitudinal research in Ticul, Yucatan, Mexico, spanning 43 years. Known especially for *Ceramic Theory and Cultural Process* (1985), he was presented the SAA's "Award for Excellence in Ceramic Studies" (1996). Symposiasts gather to pay tribute to this gentleman scholar." There are 14 presentations and the "Discussant" is none other than the honoree, Dean E. Arnold. The paper titles and abstracts follow.

"Knowing the 'Dean of Ceramics': Dean E. Arnold"
Charles C. Kolb (National Endowment for the

Humanities). Dean Arnold's field work in the US Southwest, Mexico, Peru, and Bolivia led to a focus on the longitudinal study of the organization and technology of ceramic production. Known especially for his *Ceramic Theory and Cultural Process* (1985), *Ecology of Ceramic Production in an Andean Community* (1993) and, more recently, *Social Change and the Evolution of Ceramic Production and Distribution in a Maya Community* (2008), he has shown scholars in the New World and Europe the value of long-term studies and the integration of meticulous ethnographic research with archaeometric analysis. This introduction provides the context for the symposium papers.

"The Reluctant Ethnoarchaeology of Dean E. Arnold" Philip J. Arnold III (Loyola University Chicago). For over forty years Dean Arnold has published extensively on contemporary pottery making and its potential to inform studies of ancient ceramic production. These contributions have garnered Arnold international acclaim as a leading figure within the field of Ceramic Ethnoarchaeology. Ironically, Arnold rarely calls his work ethnoarchaeology, preferring instead to frame his research as ecological, processual, and comparative. This paper considers Arnold's reluctant form of ethnoarchaeology, exploring his long-term contribution to ancient pottery studies and examining the intersection of his ecologically oriented approach with the tenets of Ceramic Ethnoarchaeology.

"Continuities and Discontinuities in Pottery-Making Traditions in the Upper Amazon: Contributions toward Anthropologically-Informed Archaeology" Brenda Bowser (California State University, Fullerton). Arnold's long-term commitment to field studies in contemporary pottery-making communities, an ecological approach, and cross-cultural analysis of behavior have transformed our knowledge of the archaeological past. His research has provided a rich understanding of how and why the archaeological record may be confounded by variations in behavior, but yield meaningful patterns nonetheless. Building from Arnold's work, this paper describes long-term, micro-scale ethnoarchaeological research among potters in the Ecuadorian Amazon, synthesized with oral history and linguistics, to reconstruct Zaparo ethnogenesis,

the spread of a pottery-making tradition, and the migration.

“Pots for Tots: The Ceramic Art of Shipibo and Mimbres Children” Warren DeBoer (Queens CUNY). Information concerning the learning of culturally-specific art styles in non-Western settings is surprisingly scant. This paper compares children’s ceramic art of the contemporary Shipibo of the Peruvian Amazon with the eleventh to twelfth century Mimbresños of New Mexico. The ontogenetic mastery of angles, layout, symmetry, and other design features as well as various guidelines and teaching aids employed by adult artists are outlined. The two cases display interesting contrasts while neither entirely conforms to Jungian, Freudian, or Piagetian claims for universal developmental stages.

“Domestic Cloth Production: The Economic Significance of Households in the Classic Period Oaxaca Valley, Mexico” Lacey B. Carpenter (University of Michigan), Gary M. Feinman (Field Museum of Natural History) and Linda M. Nicholas (Field Museum of Natural History). Since the identification of specialization, researchers have argued that production for exchange ought to take place in workshops or other such special facilities. Arnold’s work demonstrates that even today households produce goods to trade in the market and through barter with neighbors. Using household assemblages collected over ten years of excavations at two Prehispanic sites in the Oaxaca Valley, Mexico, we argue that domestic production for exchange has deep roots in Mesoamerica and broad implications for understanding the economy of the region.

“Does compositional standardization of ceramic paste really mean specialization?” -- a revisit” Ronald L. Bishop (Smithsonian Institution). The natural and social factors that form the basis for Arnold’s concern are examined as they relate to the data obtained through instrumental means. Attention will be given to the nature of compositional data, pattern recognition, nature of source “group” and cream-skimming presentation. Issues of complexity that preclude unambiguous response to the question are illustrated through examples drawn from compositional investigations of ceramic variation in

the pre-Spanish contact US southwest and the Maya region.

“Ceramic Ethnography and the Development of Analytical Approaches to Archaeological Ceramics” Peter Day (University of Sheffield). Detailed ceramic ethnographies, especially comparative studies such as those highlighted by Dean Arnold, have been important in informing chemical and mineralogical studies of archaeological ceramics. While most commonly analysts have used raw material exploitation thresholds to help define what comprises ‘local’ in provenance studies, ethnography has also contextualized a whole range of factors which affect ceramic production, setting the basis for an understanding of technological choices and social approaches to ceramic technology. In investigating the interplay between these two areas of research championed by Dean, the paper will examine variability in thin sections of ceramics sourced from ethnographic studies.

“Ceramic Production on Mesoamerica’s Tropical Coasts” Hector Neff (California State University, Long Beach) and Satoru Murata (Boston University). One of Dean Arnold’s key insights was that individuals turn to ceramic production when returns are greater than for other economic pursuits. From this perspective, the tropical coasts of Mesoamerica, which are of little use for agriculture, would have been favored for ceramic production once Mesoamerican people became fully committed to agricultural subsistence. This hypothesis deserves further exploration based on recent excavations along the Caribbean coast of Belize and recent surveys in southern Chiapas, Mexico. In both cases, post-Formative sites appear to have been dedicated to the dual industrial activities of ceramic and salt production.

“Clay, Kiln, Pot, and Potter: Factors in the Evolution of Ceramic Production and Distribution in Southern Veracruz” Christopher A. Pool (University of Kentucky). From *Ceramic Ecology and Cultural Process through Social Change and the Evolution of Ceramic Production and Distribution in a Maya Community*, Dean Arnold’s work has profoundly influenced interpretations of ancient craft production systems in general, and pottery production in particular. This paper highlights Arnold’s past and

continuing contributions through an examination of changes in the ecology, technology, and organization of pottery production and distribution in southern Veracruz, Mexico.

“An ICP-MS Analysis of Early Maya Pottery from the Northern Maya Lowlands” George G. Bey III (Millsaps College), Evan Parker (Tulane University), Jiyun Gu (Millsaps College), Timothy Ward (Millsaps College), and Tomás Gallareta (INAH). Middle Preclassic ceramics from four sites in northwest Yucatan are examined using ICP-MS to determine the chemical variation that exists between and within these samples. Over the last decade, evidence of a complex and wide-spread occupation during the Middle Preclassic has been identified throughout the northern Maya lowlands. Beyond typological information based on visual examination of paste, slip, and surface treatment, little is known about the nature of the ceramics or the pottery economics associated with these sites. This study indicates it is possible to identify the origin of Preclassic ceramics by their chemical signature and that compositional variation existed at the site level over time.

“De Colores: Pigments and Potters in Postclassic Petén.” Leslie Cecil (Stephen F. Austin State University) and Prudence M. Rice (Southern Illinois University). In his seminal article “Ethnominerology of Ticul, Yucatan Potters: Etics and Emics,” Arnold employs ethnographic and mineralogical data to illuminate the cognitive rationale behind choices of raw material used in pigment and pottery manufacture. We use this foundation to examine pigments used by Kowoj and Itzá Maya potters in the central Petén lakes region. Through archaeological data of these distinct socio-political ethnicities, we demonstrate the strong tie between different Postclassic emic systems (why certain colors co-occur and choices of pigments) and etic data (chemical compositions). Additionally, we reconfirm that cognitive systems are not out of the grasp of archaeologists.

“Supply on Command: The Development of Inka Pottery Production in the Cuzco Area” Bill Sillar (University College London, Institute of Archaeology). Dean Arnold has shown how pottery production relates to the environment, social

organisation and technical choices, promoting debate about how changes in these variables affect pottery output. I will discuss factors influencing the change from domestic to larger scale production, by considering the development of “classic” Inka pottery in Cuzco. Early integration and expansion of the Inka state gave access to new materials, labour and technical know-how that were used to increase the quality and quantity of pottery production. Other areas of state control facilitated cross-craft complementarity, such as the development of Inka stonework (which provided andesite temper).

“Ceramic Theory and Cultural Process: Realized and Unrealized Potential in the United States Southwest” Eric Blinman (Museum of New Mexico, Office of Archaeological Studies). Pottery has been part of Southwestern material culture for more than 2000 years, and its study is integral to most contemporary archaeological research programs. Anna Shepard laid a broad foundation for ceramic studies in the 1930s and again prodded the discipline in the 1960s with the potential of ceramic ecology. Beginning in the 1970s, Dean Arnold’s contributions helped catalyze a new era in Southwestern studies with both archaeological templates for interpretation and a corpus of ethnographic comparative data. Regional programs studying pottery production and exchange are strong, and now attention is turning toward issues of cultural style and affiliation.

“Ethnoarchaeological Solutions for Societies in the Future” Sandra L. Lopez Varela (Universidad Autónoma del Estado de Morelos). Understanding that technology is produced by people who creatively adjust to environmental, social and infrastructural circumstances to solve problems, make choices, and interact with one another to pass on their knowledge, summarizes the legacy of Dean Arnold’s ethnoarchaeological research. This premise is shaping a new way of thinking for planning sustainable heritage models, minimizing the effects of development policies in threshold countries as discussed in this paper that would never be able to demonstrate my appreciation and gratitude for Arnold’s sharing of his over more than thirty years of sound research.

Vienna II: Ancient Egyptian Ceramics in the 21st Century is scheduled to be held in Vienna, Austria,

14-19 May 2012. The focus of the conference is Egyptian pottery from the Neolithic to the Late-Roman Period in Egypt and in neighboring countries (Sudan, Palestine etc.). The emphasis is on new research and interdisciplinary approaches as well as scientific analysis. Additional information may be found at:

<http://www.univie.ac.at/egyptology/Konferenz.html>

39th International Symposium on Archaeometry “50 years of ISA,” is scheduled for Leuven, Belgium, 28 May-1 June 2012. This symposium is designed to promote the development and use of scientific techniques in order to extract archaeological and historical information from the cultural heritage and the paleoenvironment. Ceramics and all other types of objects and materials related to human activity are included. More information may be found at: <http://ees.kuleuven.be/isa2012/>

International Symposium on Ancient Ceramics (ISAC): The 10th meeting of the International Symposium on Ancient Ceramics (ISAC) will be held on 23-27 October 2012 in Jingdezhen, Jiangxi province, China. The conference is organized by the Shanghai Institute of Ceramics, The Shanghai Research Society for the Science and Technology of Ancient Ceramics and the Research Institute for Ancient Ceramics at the Jingdezhen Ceramics Institute. The conference will facilitate interchange of information among researchers and specialists in ancient ceramics with visits to special facilities in Jingdezhen. The subjects of the conference are ceramic science and technology, archaeology, trade, craft, testing methods and preservation. A trip to Jizhou kilns will follow the conference. Contact Pamela Vandiver at vandiver@mse.arizona.edu with questions.

Recently Published

“Aspects of ancient Greek trade re-evaluated with amphora DNA evidence” by Brendan P. Foley, Maria C. Hansson, Dimitris P. Kourkoumelis, and Theotokis A. Theodoulo (2011) *Journal of Archaeological Science* in press/prepublication online. Abstract: “Ancient DNA trapped in the matrices of ceramic transport jars from Mediterranean shipwrecks can reveal the goods

traded in the earliest markets. Scholars generally assume that the amphora cargoes of 5th–3rd century B.C. Greek shipwrecks contained wine, or to a much lesser extent olive oil. Remnant DNA inside empty amphoras allows us to test that assumption. We show that short ~100 nucleotides of ancient DNA can be isolated and analyzed from inside the empty jars from either small amounts of physical scrapings or material captured with non-destructive swabs. Our study material is previously inaccessible Classical/Hellenistic Greek shipwreck amphoras archived at the Ministry of Culture and Tourism Ephorate of Underwater Antiquities in Athens, Greece. Collected DNA samples reveal various combinations of olive, grape, *Lamiaceae* herbs (mint, rosemary, thyme, oregano, sage), juniper, and terebinth/mastic (genus *Pistacia*). General DNA targeting analyses also reveal the presence of pine (*Pinus*), and DNA from *Fabaceae* (Legume family); *Zingiberaceae* (Ginger family); and *Juglandaceae* (Walnut family). Our results demonstrate that amphoras were much more than wine containers. DNA shows that these transport jars contained a wide range of goods, bringing into question long-standing assumptions about amphora use in ancient Greece. Ancient DNA investigations open new research avenues, and will allow accurate reconstruction of ancient diet, medicinal compounds, value-added products, goods brought to market, and food preservation methods.” Previous related work includes: Maria C. Hansson and Brendan P. Foley (2008) Ancient DNA fragments inside Classical Greek amphoras reveal cargo of 2400-year-old shipwreck. *Journal of Archaeological Science* 35(5): 1169-1176 (May 2008), doi:10.1016/j.jas.2007.08.009. N. Poulakakis, A. Tselikas, I. Bitsakis, M. Mylonas, and P. Lymberakis (2007) Ancient DNA and the genetic signature of ancient Greek manuscripts. *Journal of Archaeological Science* 34(5):675-680 (May 2007), doi:10.1016/j.jas.2006.06.013.

Exhibition

Smithsonian Institution, Freer and Sackler Galleries, Washington, DCL: two exhibitions. *Cranes and Clouds: The Korean Art of Ceramic Inlay* (on view indefinitely beginning November 5, 2011 in the Freer Gallery). The Freer's Korean gallery reopens with an exhibition of works that

embody the evolution of the distinctive Korean ceramic decoration known as *sanggam*. Originally, *sanggam* involved inlaying white and black pigments into stamped or carved motifs to create images of cranes, clouds, ducks, lotuses, and willows that appear to float within a limpid green glaze. This technique appeared in Korea by the mid-12th century and it would adorn tableware and ritual vessels used by the court and nobility for two centuries. Once porcelain replaced celadon as the elite ceramic, however, the appearance of inlaid decoration changed radically. White pigment, applied in dense patterns to cover everyday bowls and dishes, approximated the snowy appearance of porcelain. This exhibit is made possible by the generous support of the National Museum of Korea. *Chinese Ceramics: 10th-13th Century* (on view indefinitely beginning November 5, 2011 in the Freer Gallery). Potters in both north and south China perfected the skills needed to control and modulate ceramic glazes – in shades of white, green, blue, brown, and black – during the Song dynasty (960-1279). In some modes, the glaze complemented carved or incised decoration; in others, its purity of color became a focal point on its own. Two dozen Chinese ceramics from the Freer collection highlight these glazes and the skills of Song dynasty artisans.

Online Resource

Current Research in New York Archaeology: A.D. 700-1300, edited by John Hart and Christina Rieth. New York State Museum Record Series 2, Albany: The University of the State of New York, The State Education Department, Office of Cultural Education, 2011. xii + 108 pp., ISSN 2156-6178, ISBN 1-55557-255-3. The volume (7.17 mb) is freely available for downloading as a PDF or HTML at http://www.nysm.nysed.gov/publications/record/vol_02/index.html. Three of the eight chapters focus on ceramics: Chapter 2: “The Carpenter Brook Site, Social Setting, and Early Late Woodland Ceramic Vessel Variation in Central New York” by Donald A. Smith, pp.7-26, 13 figures, 3 tables. Chapter 6: “A Middle Woodland Pottery Stamp and Associated Middle Woodland Ceramics from the Indian Hill Site, Wawarsing, New York” by Joseph E. Diamond and Susan O’Connell Stewart, pp. 77-82, 8 figures. Chapter 7: “The History of the

Collared Rim in the Finger Lakes, New York” by Hetty Jo Brumbach, pp. 83-93, 15 figures.

ARCHAEOLOGICAL CHEMISTRY

Ruth Ann Armitage, Associate Editor

SAS members who are also members of the American Chemical Society, or have an interest in chemistry in archaeological science: the *Archaeological Chemistry Symposium at the ACS National Meeting* is being planned for Spring 2013 in New Orleans! Watch here, and your email, for future updates.

A recent report in *Rapid Communications in Mass Spectrometry* [1] describes the detection of nicotine and its oxidation products in a Mayan vessel from the Library of Congress' Kislak Collection. While the investigation sought alkaloid residues in several vessels, one codex-style container had an inscription that was translated as “home of tobacco”. Both GC-MS and LC-MS were used in this study, which provided the first physical evidence of tobacco residues in Mayan ceramics.

In October 2011, *PNAS* brought us an excellent report on lipid residues from Neolithic ceramics in the Western Baltic region [2]. GC-C-IR-MS analyses showed that 20% of the studied materials contained evidence of processing fish and other marine/freshwater foods during a time of transition to domesticated plant and animal foods.

January 2012 marked the creation of the *Max Planck – Weizmann Institute of Science Center in the Field of Integrative Archaeology and Anthropology*, which will study fundamental questions of when cultural changes took place around the world. A new AMS facility, the first in the Middle East, will open at the center in Rehovot, Israel at the end of 2012. The full press release contains much more information, and can be found online [3].

A new ACS Symposium Series book, *Collaborative Endeavors in the Chemical Analysis of Art and Cultural Heritage Materials*, will be coming out in 2012 that I hope will be of interest to many SAS

members. When my co-editor, Patricia Lang, and I have the book ready, I will update the membership on the contents of this book that covers topics from teaching the chemistry of art to exposing fraudulent artifacts in museums to new methods for characterizing archaeological residues.

1. Zagorevski, D.V. and J.A. Loughmiller-Newman, *The detection of nicotine in a Late Mayan period flask by gas chromatography and liquid chromatography mass spectrometry methods*. Rapid Communications in Mass Spectrometry, 2012. **26**(4): p. 403.
2. Craig, O.E., et al., *Ancient lipids reveal continuity in culinary practices across the transition to agriculture in Northern Europe*. Proceedings of the National Academy of Sciences, 2012. **108**(44): p. 17910-17915.
3. Weizmann Institute and Max Planck Society Establish a Joint Center for Archaeology and Anthropology, <http://wis-wander.weizmann.ac.il/weizmann-institute-and-max-planck-society-establish-a-joint-center-for-archaeology-and-anthropology>.

ARCHAEOMETALLURGY

Thomas R. Fenn, Associate Editor

The column in this issue includes the following categories of information on archaeometallurgy: 1) New Books; 2) New Articles/Book Chapters; 3) Previous Meetings.

New Books

Pioneering Metallurgy: The Origins of Iron and Steel Making in the Southern Indian Subcontinent. Telangana Field Survey Interim Report 2011, edited by G. Juleff, S. Srinivasan, and S. Ranganathan, 2011, National Institute for Advanced Studies and University of Exeter, Bengaluru, India, Language: English, ISBN: 9788187663539.

This volume represents one of the first products of a UKIERI (United Kingdom-India Education and Research Initiative) Indo-British research grant to study iron and steel production in the state of

Andhra Pradesh, southern India. While a relatively short work, the chapters provide the reader with a sense of the archaeometallurgical research potential for the region and within the framework of the project. The contents include, following a short introduction by the editors, “The significance of wootz steel to the history of materials science” (Sharada Srinivasan, S. Ranganathan; pp. 1-3), “Telangana iron and steel: an historical introduction” (S. Jaikishan; pp. 4-7), “Telangana Field Survey: aims, methods and outcomes” (G. Juleff, S. Jaikishan; pp. 7-11), “Telangana Field Survey: macro-morphological analysis of technological debris” (M. Cox, S. Haricharan; pp. 11-14), “Telangana Ethnometallurgical Survey: an interim report” (T. Neogi, S. Jaikishan; pp. 15-19), “Archaeometallurgy in the Telangana region: a GIS approach” (Ioana A. Oltean, M. B. Rajani, N. S. Nalini; pp. 20-24), “Telangana Field Survey: post-survey analysis of field data” (G. Juleff, Sharada Srinivasan, S. Ranganathan, S. Jaikishan, B. Gilmour; pp. 24-28), and “From the macroscopic to the microscopic: some scientific insights” (Sharada Srinivasan, S. Ranganathan, J.C. Andersen, S. Suwas; pp. 29-31).

Eldorado!: The Archaeology of Gold Mining in the Far North, edited by Catherine Holder Spude, Robin O. Mills, Karl, Gurcke, and Roderick Sprague, published for the Society for Historical Archaeology by the University of Nebraska Press, Lincoln, NE, *Historical Archaeology of the American West Series*, 376 p., Language: English, ISBN: 9780803210998, 080321099X.

When gold was discovered in the far northern regions of Alaska and the Yukon in the late nineteenth century, thousands of individuals headed north to strike it rich. This massive movement required a vast network of supplies and services and brought even more people north to manage and fulfill those needs. In this volume, archaeologists, historians, and ethnologists discuss their interlinking studies of the towns, trails, and mining districts that figured in the northern gold rushes, including the first sustained account of the archaeology of twentieth-century gold mining sites in Alaska or the Yukon. The authors explore various parts of this extensive settlement and supply system: coastal towns that funneled goods inland from ships; the

famous Chilkoot Trail, over which tens of thousands of gold-seekers trod; a host of retail-oriented sites that supported prospectors and transferred goods through the system; and actual camps on the creeks where gold was extracted from the ground. Discussing individual cases in terms of settlement patterns and archaeological assemblages, the essays shed light on issues of interest to students of gender, transience, and site abandonment behavior. Further commentary places the archaeology of the Far North within the larger context of early twentieth-century industrialized European American society.

Contributions to the first section consisted of “Rediscovering Eldorado: An Introduction to This Volume” (Catherine Holder Spude, Robin O. Mills; pp. 1-8), “An Overview History of the Alaska-Yukon Gold Rushes, 1880–1918” (Robert L. Spude; pp. 9-24), “Theoretical Perspectives on the Frontier Mining Pattern” (Donald L. Hardesty; pp. 25-33), “A Proposed Model for a Placer Gold Mining Settlement System” (Robin O. Mills; pp. 34-49), “Predicting Social and Economic Function at Residential and Commercial Site Types in the Far North, 1880–1920” (Catherine Holder Spude; pp. 50-75), “New Perspectives from the North: Comparative Opportunities and Challenges in an Archaeology of Eldorado” (Margaret Purser; pp. 76-88). Contributions to the second section consisted of “Intermediate Coastal Transfer and Supply Settlements: Supplying the Upper Yukon through Skagway and Dyea” (Robin O. Mills and Catherine Holder Spude; pp. 89-94), “Already Here and Rich: A Brief Ethnohistory of Upper Lynn Canal” (Thomas F. Thornton; pp. 95-108), “Tobacco Pipes, Medicinals, and Decorated Dishes: The Archaeology of Gender and Economic Class in Households from Skagway, Alaska” (Doreen C. Cooper and Catherine Holder Spude; pp. 109-125), “Faunal Remains in Skagway: Gold Rush to Working Class” (David R. Huelsbeck; pp. 126-139). Contributions to the third section consisted of “Getting around the Landscape: Links in the Interior Transportation System” (Robin O. Mills and Catherine Holder Spude; pp. 141-144), “An Overview of Chilkoot Trail Archaeology” (Eve Griffin and Karl Gurcke; pp. 145-163), “Canyon City: The Archaeology of a Company Town on the Transportation Network to the Klondike” (T. J. Hammer; pp. 164-181). Contributions to the fourth section consisted of “Central and Secondary

Distribution Settlements: Supplying the Mining Districts” (Robin O. Mills and Catherine Holder Spude; pp. 183-186), “Explaining Variability in Northern Gold Mining Saloons” (Catherine Holder Spude, Robert M. Weaver, and Tim A. Kardatzke; pp. 187-202), “Living at the Edge of a Boomtown: Transient Life in Dawson City during the Klondike Gold Rush” (Michael Brand; pp. 203-220), “Boom through Bust and Beyond: Changing Settlement System Functions at Coldfoot, a Placer Mining Town in Alaska” (Robin O. Mills; pp. 221-238), “Alder Smoke and Shoe Nails: Life in an Early-20th-Century Mining Camp” (Howard L. Smith, Robin O. Mills, and Catherine Holder Spude; pp. 239-253). Contributions to the final section consisted of “Extracting the Wealth: Sites on the Gold Creeks” (Robin O. Mills and Catherine Holder Spude; pp. 255-258), “Living the Solitary Life: Placer Mining Camps in Alaska, 1900–1950” (Becky M. Saleeby; pp. 259-273), “Alaska Natives in the Gold Rush: A Look at Valdez Creek in the Early- to Mid-20th Century” (Robert E. King; pp. 274-287), “Cabin Comforts: The Archaeology of Bachelor Cabins on Fish Creek, Alaska” (Andrew S. Higgs and Robert A. Sattler; pp. 288-308).

New Book Chapters/Articles

From *Sharing Cultures 2011 (Proceedings of the 2nd International Conference on Intangible Heritage, Tomar, Portugal, July 2011)*, edited by Sérgio Lira, Rogério Amoêda, and Cristina Pinheiro, Green Lines Institute for Sustainable Development, Barcelos, Portugal, 2011, comes “Bloomery iron smelting in sub-Saharan Africa as Intangible Cultural Heritage: the view from the Mandara Mountains (Cameroon and Nigeria)” (Nicholas David, Judith Sterner; pp. 699-708).

From the journal *Environmental Science & Technology* (2011, Vol. 45, No. 20) comes “A 3500-Year Record of Hg and Pb Contamination in a Mediterranean Sedimentary Archive (The Pierre Blanche Lagoon, France)” (Elbaz- F. Poulichet, L. Dezileau, R. Freydier, D. Cossa, P. Sabatier; pp. 8642-8647), while from the *Journal of Archaeological Science* (2012, Vol. 39, No. 1) comes “Lead isotope analysis as a new method for identifying material culture belonging to the Vázquez de Coronado expedition” (Alyson M.

Thibodeau, John T. Chesley, Joaquin Ruiz; pp. 58-66). From the journal *International Journal of Historical Archaeology* (2011, Vol. 15, No. 4) comes “Worker Housing in the Vermont Copper Belt: Improving Life and Industry Through Paternalism and Resistance” (Ben Ford; pp. 725-750), while from *Rosetta* (2011, Vol. 10) comes “The Phoenicians in the Southern Iberian Peninsula: The Significance of Metal Resources” (Sylwia Ewa Fortuna; pp. 1-15), and from *Azania* (2011, Vol. 46, No. 1) comes a “Review of *Forgerons et sidérurgie en pays dogon: vers une histoire de la production du fer sur le plateau de Bandiagara (Mali) durant les empires précoloniaux*” (Philip de Barros; pp. 110-113).

The journal *ArchéoScience: Revue d'Archéométrie* included a thematic section in issue No. 34 (2010; published in 2011) entitled “Mines et métallurgies anciennes du plomb dans leurs environnements. Apports des méthodes contribuant à leur étude”, edited by Alain Ploquin, Marie-Christine Bailly-Maître, and Philippe Allée, pp. 97-308. Published papers surrounding the topic of ancient lead mining and metallurgy included some in both English and French. Contributions comprised an “Avant-propos / Foreword” (Alain Ploquin; p. 97), “PCR – Le Plomb argentifère ancien du Mont Lozère (Lozère) : À la recherche des mines, des minerais et des ateliers, des paysages et des hommes / A collective research project: The medieval lead (silver) of Mont Lozère (Lozère), in search of mines, ores and men” (Alain Ploquin, P. Allée, M.-C. Bailly-Maître, S. Baron, J.-L. de Beaulieu, J. Carignan, S. Laurent, M. Lavoie, C. Mahé Le Carlier, S. Paradis, J. Peytavin, M. Pulido; pp. 99-114), “Le plomb chez Vannoccio Biringuccio, *De La Pirotechnia* (1540) / Lead in Vannoccio Biringuccio, *De La Pirotechnia* (1540)” (Patrick Clerc; pp. 115-119), “Pratique, technique, technologie ? Gros plan sur le projet intellectuel des *De re metallica*, 1530-1556 / Practical, technique, technology? All about intellectual project of the *De re metallica*, 1530-1556” (Anne-Françoise Garçon; pp. 121-126), “Teneurs totales en plomb en fonction de la profondeur dans les sols « naturels » : Le point de vue d'un pédologue / Total lead concentrations as a function of depth in “natural” soils A pedologist's viewpoint” (Denis Baize; pp. 127-135), “Le plomb et l'argent dans le Gévaudan médiéval / Lead and silver in the medieval Gévaudan” (Marie-Christine

Bailly-Maître; pp. 137-148), “Géochimie isotopique du plomb en archéologie minière et métallurgique : Exemple du Mont Lozère dans les Cévennes / Lead isotopes in mining archaeology and paleometallurgy: An example from Mont Lozère Massif (Cévennes, France)” (Sandrine Baron, Cécile Mahé Le Carlier, Alain Ploquin; pp. 149-158), “Apport de la géochimie et de la pétrologie à la connaissance de la métallurgie primaire du plomb argentifère au Moyen Âge : Les exemples du Mont Lozère (Cévennes) et de Pfaffenloch (Vosges) / The geochemical and petrological contributions to the lead-silver primary metallurgy during the Middle Age: Examples of Mont Lozère (Cévennes) and Pfaffenloch (Vosges)” (C. Mahé-Le Carlier, A. Ploquin, P. Fluck; pp. 159-176), “L'exploitation médiévale du plomb argentifère sur le mont Lozère : Archéologie spatiale d'un territoire proto-industriel montagnard / Medieval argentiferous lead mining on Mont Lozère : spatial archaeology of a mountainous proto-industrial territory” (Philippe Allée, Sandrine Paradis, Farid Boumédiène, Romain Rouaud; pp. 177-186), “Fouille archéologique préventive « Le Cerisier », commune du Bonhomme (Haut-Rhin, avril 2006) : Vestiges métallurgiques liés à la production d'argent dans la région de Sainte-Marie-aux-Mines / “Le Cerisier” archaeological field survey (Le Bonhomme, France): Metallurgical remains associated to silver production in the vicinity of Sainte-Marie-aux-Mines” (G. Bonnamour, E. Camizuli, C. Marconnet; pp.187-196), “Une pollution métallique antique en haute vallée de l'Arve / An antique metallic pollution in high valley of Arve river” (Fabien Arnaud, Joël Serralongue, Thierry Winiarski, Marc Desmet; pp. 197-201), “Une mine de plomb argentifère dans un environnement montagnard : La mine médiévale du Fournel à L'Argentière-la-Bessée (Hautes-Alpes) / A silver-bearing lead mine in a mountainous environment: The medieval Fournel mine at L'Argentière-la-Bessée (Hautes-Alpes)” (Bruno Ancel, Vanessa Py, Christophe Marconnet, Eric Kammenthaler, Vincent Leleu; pp. 203-220), “Extraction et traitement d'un minerai d'argent au Moyen Âge (XII^e-XIV^e siècle) / Extraction and treatment of lead and silver ore in the Middle Ages (12th-14th centuries)” (Marie-Christine Bailly-Maître; pp. 221-233), “Mines d'argent du Montaignu (Hautes-Pyrénées, France) : Une filière aquitaine de l'argent ? Étude isotopique du plomb / Silver mines

on the massif of Montaignu (Hautes-Pyrénées, France): An Aquitanian network for silver? Study on lead isotopes” (Jérôme Girard, Marguerite Munoz, Béatrice Cauuet, Mireille Polve, Sébastien Aries, Laurent Callegarin; pp. 235-242), “Dosages par fluorescence X portable d’ateliers médiévaux de production des métaux non-ferreux : Les exemples de Castel-Minier et d’Agnesserre (Aulus-les-bains, Ariège) / Survey of non-ferrous medieval workshops by field-portable XRF soil analysis at Castel-Minier and Agnesserre (Aulus-les-Bains, Ariège)” (F. Téreygeol, A. Arles, E. Foy, N. Florsch, M. Llubes; pp. 243-252), “Les objets en plomb découverts sur le site portuaire médiéval de Taillebourg – port d’Envaux : typologie, fonction et origine / Lead artefacts found in Taillebourg – Port d’Envaux harbour: Typology, use and origin” (F. Téreygeol, E. Foy, J.-F. Mariotti, A. Dumont; pp. 253-267), “The importance of lead in the silver production at Riotinto (Spain) / L’importance du plomb dans la production d’argent à Riotinto (Espagne)” (Lorna Anguilano, Thilo Rehren, Wolfgang Müller, Beno Rothenberg; pp. 269-276), “Colline Metallifere (Tuscany, Italy): Research and landscape enhancement of a mining district / *Colline Metallifere (Toscane, Italie) : recherche et mise en valeur du paysage d’un district minier*” (Riccardo Francovich, Luisa Dallai; pp. 277-287), “L’interprétation archéologique des données isotopiques de plomb: Discussion à partir d’exemples suisses/ About the interpretation of lead isotope analyses in archaeology: Discussion of four case studies from Switzerland” (Barbara Guénette-Beck and Vincent Serneels; pp. 289-297), and “The crown silver mines and the historic landscape in Devon (England): The work of the Bere Ferrers project / Les mines d’argent du roi anglais et le paysage historique du Devon : le Projet Bere Ferrers” (Peter Cloughton; pp. 299-308). Abstracts for these papers can be found at the following link : <http://archeosciences.revues.org/2574>.

Previous Meetings and Conferences

The International Symposium *History, Technology and Conservation of Ancient Metal, Glasses and Enamels*, organized by the N.C.R.S “Demokritos” and School of Chemical Engineering, N.T.U.A., was held at The American School of Classical Studies at Athens, from November 16-19, 2011. There were

two sessions organized around the topic of the History and Terchnology of Metals and one session concerning Studies on Conservation and Authentication of Metals. The organizers are planning to publish the conference proceedings. Find the program and abstracts at: <http://www.ims.demokritos.gr/gme2011/images/PDF/s/book%20of%20abstracts%20gme.pdf>.

Pioneering Metallurgy: The Origins of Iron and Steel Making in the Southern Indian Subcontinent, held from November 16-18, 2011, in Bangalore, India, was a UKIERI (United Kingdom-India Education and Research Initiative) Dissemination Seminar, supported by the National Institute of Advanced Studies (NIAS) and University of Exeter, UK, in association with the Indian Institute of Science, and organized by Prof. Sharada Srinivasan, Dr. Gill Juleff, and Prof. S. Ranganathan. The seminar was divided into nine sessions spread over three days. Most session pertained directly to aarchaeometallirgicam themes although a few covered archaeological subjects also related to the research project. Sessions with archaeometallurgical foci consisted of: *Pioneering Metallurgy: Telangana Field Survey I & II, Ancient Steel in Asia and Africa I & II, Pioneering Metallurgy: Geospatial Technologies, Frontiers in Archaeology II, and Pioneering Metallurgy: Materials Analysis*.

Following an Inaugural Session presented papers included on the “Introduction to UKIERI ‘Pioneering Metallurgy’ project” (S. Ranganathan), “Introduction to the Telengana field survey” (Gill Juleff), “India’s legendary wootz steel and the place of Telengana” (Sharada Srinivasan), “Historical background of Telangana Steel” (S. Jaikishan), “Early references to iron and steel in south Asia and the context, progress and outcomes of the Telangana field survey, 2010” (Brian Gilmour), “Iron and steel in sub-Saharan Africa” (David Killick), “Principle of Bloom and Pig Iron Making in Ancient Smelting Furnace” (K. Nagata), “Ancient Iron Smelting Technology in the Guangxi Region, Southern China” (Huang Quansheng), “Iron Technology of India” (Vibha Tripathi), “Application of Geographical Information System in Archeometallurgy: A Case. Study of Telangana Wootz Production” (N. S. Nalini), “The archaeology of iron in the Northern Telangana basin - a spatial approach” (Ioana Oltean),

“Introduction Image Archiving for the UKIERI Pioneering Metallurgy Project-2010” (Hema Thakur), “Iron Age Bukkasagara: Evidence for Early Small-scale Iron Production in Karnataka, South India” (Peter Johansen), “Metal production and working as evidence of interaction between southern Africa and the Indian sub-continent” (Shadreck Chirikure), “Metal work in Pre- Modern Sri Lanka” (Anura Manatunga), “Metal technology and religious requirements in the eastern Himalayas: cymbal-production for Hindu and Buddhist use” (Richard Blurton), “Copper in the Ancient World” (Mark Pollard), “Contextualizing metal artifacts of Pattanam site, Kerala, India” (P. J. Cherian), “Introduction to Archaeomaterials” (S. Ranganathan), “From the macroscopic to the microscopic: Project progress on materials analysis” (Sharada Srinivasan), “Materials Analysis at IISc” (Satyam Suwas), “Pioneering Metallurgy Ethnoarchaeological Survey: Methods and Observations” (Tathagata Neogi), “Macro-morphological Analysis of Technological Debris” (Marc Cox), “Metamorphosis from field data to gazetteer” (Smriti Haricharan), and “The Telangana Archaeometallurgical Record: an interim review” (Gill Juleff). A PDF of the program can be found at: www.nias.res.in/docs/UKIERI%20Seminar%202011.pdf.

UPCOMING CONFERENCES

Rachel S. Popelka-Filcoff, Associate Editor

2012

11-15 March. Pittcon Conference and Expo, Orlando, FL, USA. <http://www.pittcon.org/>

25-29 March. 243rd National Meeting and Exposition, American Chemical Society. San Diego, CA USA. <http://www.acs.org>.

26-30 March. Computer Applications and Quantitative Methods in Archaeology (CAA 2012). University of Southampton, UK. <http://www.southampton.ac.uk/caa2012/>

28-31 March. 10th Biennial International Conference of the Infrared and Raman Users Group. Barcelona, Spain. <http://www.ub.edu/IRUG10BCN/>.

11-14 April. American Association of Physical Anthropologists Annual Meeting. Portland, OR, USA. <http://physanth.org/annual-meeting>

11-14 April. 35th Annual Meeting: Society of Ethnobiology. "Conservation and Communities". Denver, CO, USA. <http://ethnobiology.org/conference/upcoming>

21 April. Association for Environmental Archaeology Spring Conference: “New trends in Environmental Archaeology” Plymouth University, UK. <http://www.envarch.net/events/index.html#spring>

18-22 April Society for American Archaeology. Memphis, TN USA. <http://www.saa.org/AbouttheSociety/AnnualMeeting/tabid/138/Default.aspx>

Paleoanthropology Society Meetings, held in conjunction with the Society for American Archaeology. Memphis, TN USA. <http://www.paleoanthro.org/meeting.htm>

21-26 May. ASMOSIA (Association for the Study of Marble & Other Stones In Antiquity) Xth International Conference, Rome Italy. <http://w3.uniroma1.it/asmosia/>

28 May- 1 June. International Symposium on Archaeometry. Leuven, Belgium. <http://ees.kuleuven.be/isa2012/> Contact: Prof. Patrick Degryse (Patrick.Degryse@ees.kuleuven.be)

29-20 May. Sustainability and Heritage: How Can the Past Contribute to a Sustainable Future? International Conference: Orkney College, University of the Highlands and Islands, Kirkwall, Scotland. <http://www.envarch.net/events/index.html#Sustainability>

5-8 June. Association of Critical Heritage Studies: Inaugural Conference. Gothenburg, Sweden. <http://www.worldarchaeologicalcongress.org/events>

6-8 June. SR2A: Synchrotron Radiation in Art and Archaeology, New York, New York, USA. <https://www.bnl.gov/sr2a/>

6-9 June. 2nd International Landscape Archaeology Conference, Berlin, Germany. <http://www.geo.fu-berlin.de/geog/fachrichtungen/physgeog/lac2012/absession/index.html>

6-10 June. The 5th World Conference of the Society of East Asian Archaeology, Fukoka, Japan. <http://scs.kyushu-u.ac.jp/seaa5/news/index.html>

9-13 July. 21st International Radiocarbon Conference, Paris, France. Special session on Statistical Tools. <http://www.radiocarbon2012.com/>.

19-22 June. HERITAGE 2012 3rd International Conference on Heritage and Sustainable Development. Porto, Portugal. <http://www.heritage2012.greenlines-institute.org/>

18-23 June. Advancing Method, Enhancing Understanding: Technique and Narrative in Archaeomalacology. Cairns, Queensland, Australia. <http://www.archaeomalacology.com/cairns2012.html>

24-29 June. Goldschmidt 2012. Montreal, Canada. <http://www.goldschmidt2012.org/>

7-11 July. The 49th Clay Minerals Society Annual Meeting. Golden, CO USA. <http://www.clays.org/annual%20meeting/announcement.html>

8-13 July. 8th International Conference Easter Island and the Pacific: Living in Changing Island Environments. Santa Rosa, CA, USA. <http://islandheritage.org/wordpress/>

2-10 August. 34th International Geological Congress. Brisbane, Australia <http://www.34igc.org/>

6-10 August. 61th Annual Denver X-Ray Conference. Denver, CO, USA. <http://www.dxcicdd.com/>

19-23 August. 244th National Meeting and Exposition, American Chemical Society. Philadelphia PA, USA. <http://www.acs.org>.

20-24 August. 12th International Paleolimnology Symposium, Glasgow, UK. <http://www.paleolim.org/index.php/symposia/>

27-31 August. Geomorphic Processes and Geoarchaeology: From Landscape Archaeology to Archaeotourism. Moscow, Russia. <http://geomorphology.ru/images/upload/newsfond156/180.pdf>

30 September -4 October. (SCIX) Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) Meeting. Kansas City, MO, USA. <http://scixconference.org/>

28-29 October. 3rd Balkan Symposium on Archaeometry "The Unknown Face of the Artwork", Bucharest, Romania. <http://www.icom-cc.org/51/news/?id=180>

4-7 November. The Geological Society of America National Meeting. Charlotte, NC, USA "Geosciences: Investing in the Future". <http://www.geosociety.org/meetings/>.

10-12 November. Association for Environmental Archaeology, Autumn Conference Environmental Archaeologies of Neolithisation, University of Reading (UK). <http://www.envarch.net/events/index.html#autumn>

11-14 November. American Anthropological Association 111th Annual Meeting. San Francisco, CA. <http://www.aaanet.org/meetings/>

12-14 November. Dimensions of the Indian Ocean World Past: Sources and Opportunities for Interdisciplinary Work in Indian Ocean World History, Fremantle, WA, Australia. http://wwwarc.murdoch.edu.au/research/iow_conf.html

14-17 November. American Schools of Oriental Research Annual Meeting. Chicago, IL USA. <http://www.asor.org/am/index.html>

6-10 December. AGU Fall Meeting, San Francisco, CA USA. <http://www.agu.org/meetings/>.

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