

Heroy Bldg. 23
T, Th 2:00-3:20

The analysis and interpretation of ceramic materials allows archaeologists to accomplish a variety of tasks: establish time scales, document interconnections between different areas, and propose activities, interactions, and identities in the past. The techniques and theories used to bridge the gap between the recovery of ceramics and their interpretation within anthropological contexts is the focus of this seminar.

Class Structure and Location

Class will be held in Room 23 of the basement of Heroy Hall.

The course is divided into three sections: Ceramic Technologies, Ceramic Methodologies, and Ceramics in Society. Each section includes four lecture sessions.

The first four sessions deal with the physical properties of raw materials and technological aspects of pottery making and use. The second four cover the major methodologies used in ceramic analysis. The last four utilize a number of case studies to explore how ceramic data are used to answer social questions.

Tuesdays will be dedicated to lecture and discussion. All of the readings assigned for the week will be discussed on this day or a lecture will be provided (see calendar below for scheduled lectures). Required and supplementary readings for the course are listed below by week. Read all of the required readings for discussion in class. Scan the chapters or abstracts of as many supplementary readings as possible and use these readings to guide individual projects as needed.

Thursdays will be dedicated to lab work. There are three major assignments for the lab: Pottery Manufacture, Pottery Experimentation; and Pottery Analysis. The first exercise entails making your own pot from micaceous clay to facilitate your understanding and appreciation of the manufacturing process. This pot will be fired and critiqued. The second exercise takes you through the steps of designing and executing an experiment using raw materials to facilitate your understanding of the physical properties of clay pastes. The product for this exercise is a short report (2-5 pages) documenting the results of the experiment. The report must include a problem orientation, a methods section, results, and discussion. The third project involves the collection and analysis of ceramic data followed by the creation and presentation of a final paper not to exceed 25 pages. You must use statistical methods in the analysis of data. The paper should include a problem orientation, background to the problem, a methods section, results, and discussion. The paper and presentation are due on the final day of class. The presentation must not exceed 15 minutes and must include PowerPoint slides.

Although time will be provided in lab to guide you through these exercises, additional time will be needed outside of class to complete all the work.

Additional information will be provided in class. Also see the schedule and calendar below for lab sessions and project due dates. The final section of this syllabus contains additional useful resources for the study of ceramics.

Recommended Purchases/Downloads

Rice, Prudence M. (1987) *Pottery Analysis: A Sourcebook*. University of Chicago Press, Chicago.

This is the most comprehensive of the books currently available. It deals with almost every topic related to the archaeological analysis of pottery. It is an excellent reference book and we will be reading nearly all of the chapters. Approximate cost: Paperback \$41.00

Shepard, Anna Osler (1956) *Ceramics for the Archaeologist*. Carnegie Institution of Washington, Washington.

The foundational book. It is still relevant on many topics. It is also available free online at:
http://www.ciw.edu/publications_online/ceramics_archaeologist/default.html

Schedule

Week 1: Course Introduction

Required Readings

Rice Ch. 1

Ortega, Felipe V. (nd.) The Art and Practice of Jicarilla Apache Micaceous Pottery Manufacturing, pp. 1-10.

Ortega, Felipe V. (2005) Ceramics for the Archaeologist: An Alternate perspective. In *Engaged Anthropology: Research Essays on North American Archaeology, Ethnobotany, and Museology*, edited by M. Hegmon and B. S. Eisele, pp. 1-5. Museum of Anthropology, Anthropological Papers, No. 94, Ann Arbor.

Gosselain, Oliver P. (1999). In Pots We Trust. The Processing of Clay and Symbols In Sub-Saharan Africa. *Journal of Material Culture* Vol. 4(2): 205-230

Week 2: Ceramic Technology I - The Physical Properties of Raw Materials

Required Readings (some repetition in Rice, Rye, and Shepard - skim as needed)

Rice Ch. 2, 3

Shepard Ch 1, and pp. 147-179

Rye, Owen S. (1981) Pottery technology : principles and reconstruction. Manuals on archeology. 4. Taraxacum, Washington, D.C. [Chapter 3, 4]

D. E. Arnold (1985). *Ceramic theory and cultural process. New studies in archaeology*. Cambridge University Press, Cambridge ; New York. [Chapter 2]

Supplemental Readings

C. Orton, P. Tyers, and A. Vince (1993) Pottery in Archaeology. Cambridge University Press. [Chapter 5]

B. Velde and I. C. Druc (1999). *Archaeological Ceramic Materials: Origin and Utilization*. Springer-Verlag Berlin Heidelberg. [Chapters 2, 3 and 4]

Week 3: Ceramic Technology II - The Physical Properties of Ceramics and Firing

Required Readings

Rice Ch. 4, 11, 12

Shepard pp. 93 - 137

Longacre, William A., Jingfeng Xia, and Tao Yang (2000) I Want to Buy a Black Pot. *Journal of Archaeological Method and Theory* 7(4):273-293.

Gosselain, Olivier P. (1992) Bonfire of the Enquiries. Pottery Firing Temperatures in Archaeology: What For? *Journal of Archaeological Science* 19(3):243-259.

Bronitsky, G., and R. Hamer (1986) Experiments in Ceramic Technology: The Effects of Various Tempering Materials on Impact and Thermal-Shock Resistance. *American Antiquity* 51:89-101.

Supplemental Readings

Sinopoli, Carla M. (1991) *Approaches to Archaeological Ceramics*. Plenum Press, New York. [Chapter 2]

A. Livingstone Smith (2001) Bonfire II: the return of pottery firing temperatures. *Journal of Archaeological Science* 28:991-1003.

Pierce, Christopher (2005) Reverse Engineering the Ceramic Cooking Pot: Cost and Performance Properties of Plain and Textured Vessels. *Journal of Archaeological Method and Theory* 12:117-157.

Rye, O. S. (1976) Keeping Your Temper Under Control. *Archaeology and Physical Anthropology in Oceania* 11(2):106-137.

J. M. Skibo, M. B. Schiffer, K. C. Reid (1989) Organic-Tempered Pottery: An Experimental Study *American Antiquity*, Vol. 54(1) pp. 122-146.

A. O. Shepard (1964) Temper Identification: "Technological Sherd-Splitting" or an Unanswered Challenge *American Antiquity*, Vol. 29, No. 4. (Apr., 1964), pp. 518-520.

Bronitsky, Gordon (1989). Ceramics and Temper: A Response to Feathers. *American Antiquity* 54(3): 589-593.

Feathers, James K. (1989) Effects of temper on strength of ceramics: response to Bronitsky and Hamer. *American Antiquity* 54(3):579-588.

Feathers, James K. (2006) Explaining shell-tempered pottery in prehistoric eastern North America. *Journal of Archaeological Method and Theory* 13:89-133.

Schiffer, Michael B. (1990) The influence of surface treatment on heating effectiveness of ceramic vessels. *Journal of Archaeological Science*:373-81.

Week 4: Ceramic Technology III - The Physical Properties of Form and Function

Required Readings

Rice Ch. 5 and 7
Shepard Ch. 2 and 181-251

D. Braun (1983) Pots as Tools. In *Archaeological Hammers and Theories*, edited by A. S. Keene and J. A. Moore, pp. 107-134. Academic Press, New York

Rye, Owen S. (1981) Pottery technology : principles and reconstruction. *Manuals on archeology*. 4. Taraxacum, Washington, D.C. [Skim/Read Chapter 5]

Supplemental Readings

Hagstrum, Melissa, and John A. Hildebrand (1990). The Two-Curvature Method for Reconstructing Ceramic Morphology. *American Antiquity* 55(2):388-403.

Hally, David J. (1986) The Identification of Vessel Function: A Case Study from Northwest Georgia. *American Antiquity* 51:267-295.

Henrickson, Elizabeth R., and M. McDonald (1983) Ceramic Form and Function: An Ethnographic Search and an Archeological Application. *American Anthropologist* 85(3):630-643.

DeBoer, Warren R. (2001) The Big Drink: Feast and Forum in the Upper Amazon. In *Feasts: Archaeological and Ethnographic Perspectives on Food, Politics, and Power*, edited by M. Dietler and B. Hayden, pp. 215-239. Smithsonian Institution press, Washington D.C.

Week 5: Ceramic Technology IV - Use, Reuse, and Residue

Required Readings

J. M. Skibo (1992) Pottery Function: A Use Alteration Perspective. Plenum Press, New York. [Chapter 3]

D. J. Hally (1983) Use Alteration of Pottery Surfaces: An Important Source of Evidence for the Identification of Vessel Function. *North American Archaeologist* 4:3-26.

M. Deal and M. B. Hagstrum (1994) Ceramic Reuse Behavior among the Maya and Wanka: Implications for Archaeology. In *Expanding Archaeology*, edited by J. M. Skibo, W. H. Walker, and A. E. Neilsen, pp. 111-125. University of Utah Press, Salt Lake City.

J. W. Arthur (2002) Pottery Use-Alteration as an Indicator of Socioeconomic Status: An Ethnoarchaeological Study of the Gamo of Ethiopia. *Journal of Archaeological Method and Theory*, Vol. 9(4), pp. 331-355

C. Heron and R. P. Evershed (1993) The Analysis of Organic Residues and the Study of Pottery Function. In *Archaeological Method and Theory*, vol. 5, M. Schiffer, ed., Tucson: University of Arizona Press.

Patricia L. Crown and W. Jeffrey Hurst (2008). Evidence of cacao use in the Prehispanic American Southwest. *Proceedings for the National Academy of Sciences*, Vol. 106, No. 7

Supplemental Readings

Duma, G. (1972) Phosphate Content of Ancient Pots as Indication of Use. *Current Anthropology* 13(1):127-130.

Cackette, M., J.M. D'Auria, Bryan E. Snow (1987) Examining Earthenware Vessel Function by Elemental Phosphorous Content. *Current Anthropology* 28(1):121-127.

Arthur J. W. (2003) Brewing Beer: Status, Wealth and Ceramic Use Alteration among the Gamo of South-Western Ethiopia. *World Archaeology* 34(3):516-528

Reber, Eleanora A., and Richard P. Evershed (2004) How Did Mississippian Prepare Maize? The Application of Compound-Specific Carbon Isotope Analysis to Absorbed Pottery Residues From Several Mississippi Valley Sites. *Archaeometry* 46:19-33.

Reber, Eleanora A., and Richard P. Evershed (2004) Identification of Maize in Absorbed organic Residues: A Cautionary Tale. *Journal of Archaeological Science* 31: 399-410.

Eerkens, Jelmer W. (2007) Organic residue analysis and the decomposition of fatty acids in ancient potsherds. In *Theory and Practice in Archaeological Residue Analysis*, ed. by H. Barnard and J.W. Eerkens, pp. 90-98. BAR International Series 1650, Archaeopress, Oxford.

Eerkens, Jelmer W. (2005) GC-MS Analysis and Fatty Acid Ratios of Archaeological Potsherds from the Western Great Basin of North America. *Archaeometry* 47(1): 83-102.

Week 6: Ceramic Methodologies I - Counting, Formation, and Estimation

Required Readings

Rice Ch. 9.2 to 9.4 (Pottery Quantification)

P. Chase. (1985) Whole Vessels and Sherds: An Experimental Investigation of Their Quantitative Relationship. *Journal of Field Archaeology* 12:213-218.

Tani, Masakazu (1994) Why Should More Pots Break in Larger Households? Mechanisms Underlying Population Estimates from Ceramics In W. Longacre and J. Skibo, eds., *Kalinga ethnoarchaeology*. pp. 127-168. Washington, D.C.: Smithsonian Institution Press.

Arthur, John W. (2009) Understanding household population through ceramic assemblage formation: ceramic ethnoarchaeology among the Gamo of southwestern Ethiopia. *American Antiquity* 74:31-48.

Sullivan, Alan (2008) Ethnoarchaeological and archaeological perspectives on ceramic vessels and annual accumulation rates of sherds. *American Antiquity* 73(1):121-135.

Supplemental Readings

- Beck, Margaret (2009) Counting Pots in Kalinga, Philippines: Short-And Long-Term Change in Household Assemblages. *Ethnoarchaeology* Vol. 1(1):179-106
- David, Nicholas (1972) On the life span of pottery, type frequencies, and archaeological inference. *American Antiquity* 37(1):141-142.
- DeBoer, Warren R. (1974) Ceramic longevity and archaeological interpretation: an example from the upper Ucayali, Peru. *American Antiquity* 39(2):335-343.
- Mills, Barbara (1989) Integrating Functional Analyses of Vessels and Sherds through Models of Ceramic Assemblage Formation. *World Archaeology* 21(1):133-147.
- P. Rice (1989) Ceramic Diversity, Production, and Use. In *Quantifying Diversity in Archaeology*, edited by R. D. Leonard and G. T. Jones, pp. 109-117. Cambridge University Press, Cambridge

Week 7: Ceramic Methodologies II - Classification and Seriation

Required Readings

- Rice Ch. 9.1 (Pottery Classification)
- R. J. Whallon (1972) A New Approach to Pottery Typology. *American Antiquity* 37:13-33.
- M. E. Smith (1979) A Further Criticism of the Type-Variety System: The Data can't be Used. *American Antiquity* 44(4): 822-826.
- Adams, R. E. W. (1996) A perspective on thirty-five years of type-variety analysis. *Ceramica de cultura maya*:5-7.
- W. Marquardt (1978) Advances in Archaeological Seriation. *Advances in Archaeological Method and Theory* 1: 257-314 (SKIM?READ).
- A. I. Duff. (1996). Ceramic Micro-Seriation: Types or Attributes? *American Antiquity* Vol. 61(1), pp. 89-101

Supplemental Readings

- Sinopoli, Carla M. (1991) *Approaches to Archaeological Ceramics*. Plenum Press, New York. [Ch. 3]
- C. Orton, P. Tyers, and A. Vince (1993) *Pottery in Archaeology*. Cambridge University Press. [Chapter 14]
- T. Culbert, T. Patrick and R. L. Rands (2007). Multiple Classifications: An Alternative Approach to the Investigation of Maya Ceramics. *Latin American Antiquity* Vol. 18(2), pp. 181-190.
- Eerkens, Jelmer W., Hector Neff, and Michael D. Glascock (2002) Typologies and Classification of Great Basin Pottery: A New Look at Death Valley Brownwares. In *Ceramic Production and Circulation in the Greater Southwest: Source Determination by INAA and Complementary Mineralogical Investigations*, ed. by and D.M. Glowacki and H. Neff, pp. 140-151. Cotsen Institute of Archaeology, Monograph 44, Los Angeles.
- F. S. Kaplan and D. M. Levine. Cognitive Mapping of a Folk Taxonomy of Mexican Pottery: A Multivariate Approach. *American Anthropologist*, New Series, Vol. 83(4), pp. 868-884.
- P. J. Arnold (1999). On Typologies, Selection, and Ethnoarchaeology in Ceramic Production Studies. In *Material Meanings: Critical Approaches to the Interpretation of Material Culture*, edited by E. Chilton, pp. 103-117. (AVAILABLE ON-LINE AS AN E-BOOK)
- T. P. Myers. (1976). Isolation and Ceramic Change: A Case from the Ucayali River, Peru. *World Archaeology*, Vol. 7, No. 3, Archaeology and History. (Feb., 1976), pp. 333-351.

Adams, W. (1979) On the argument from ceramics to history: a challenge based on evidence from medieval Nubia. *Current anthropology* 20(4): 727-744.

Deboer, W., K. Kintigh, and A. Rostoker (1996) Ceramic seriation and site reoccupation in lowland South America. *Latin American antiquity* 7(3): 263-278.

Week 8: No Class - Fall Break

Week 9: Ceramic Methodologies III - Style, Symmetry, and Design

Required Readings

Rice Ch. 8

Hegmon, Michelle (1992) Archaeological Research on Style. *Annual Review of Anthropology* 21:517-536.

N. David, J. Sterner and K. Gavua (1988) Why Pots Are Decorated. *Current Anthropology* 29(3):365-389.

J. M. Skibo, M. B. Schiffer, N. Kowalski. (1989). Ceramic style analysis in archaeology and ethnoarchaeology: Bridging the analytical gap. *Journal of Anthropological Archaeology*, Vol. 8(4), pp. 388-409

Washburn, Dorothy (1989). The Property of Symmetry and the Concept of Ethnic Style. In *Archaeological Approaches to Cultural Identity*, S. J. Shennan, ed., pp. 157-173. London: Unwin Hyman.

Gosselain, Olivier P. (2000) Materializing identities: an African perspective. *Journal of Archaeological Method and Theory* 7:187-217.

Supplemental Readings

D. E. Arnold (1984) Social Interaction and Ceramic Design: Community-wide Correlations in Quinoa, Peru. In, *Pots and Potters: Current Approaches in Ceramic Archaeology*, edited by P. M. Rice, pp. 55-69. UCLA Institute of Archaeology, Monograph 24, University of California, Los Angeles

F. Hole (1984). Analysis of Structure and Design in Prehistoric Ceramics. *World Archaeology* Vol. 15(3):326-347

E. W. Jernigan (1986). A Non-Hierarchical Approach to Ceramic Decoration Analysis: A Southwestern Example. *American Antiquity*, Vol. 51(1) pp. 3-20.

Wobst, M. (1977) Stylistic behavior and information exchange. In C. Cleland, ed., *For the director: research essays in honor of James B. Griffin*. pp. 317-342. Ann Arbor: University of Michigan.

Plog, S. (1978) Social interaction and stylistic similarity: a reanalysis. *Advances in archaeological method and theory* 1: 143-182.

Herbich, Ingrid (1987) Learning patterns, potter interaction and ceramic style among the Luo of Kenya. *African archaeological review*.

Emberling, G. (1997) Ethnicity in complex societies: archaeological perspectives. *Journal of archaeological research* 5: 295-344.

Watson, P. J. (1977) Design analysis of painted pottery. *American Antiquity* 42:381-93.

Week 10: Ceramic Methodologies IV - Compositional Studies

Required Readings

Rice Ch. 10 (read), 13 (skim)
Shepard pp 138-146

M. S. Tite (2008). Ceramic Production, Provenance, and Use: A Review. *Archaeometry* 50(2):216-231,

J. B. Stoltman (2001). The Role of Petrography in the Study of Archaeological Ceramics. In, *Earth Sciences and Archaeology*, edited by P. Goldberg, V. T. Holliday, and C. R. Ferring, pp. 297-326, Plenum Publishers, New York

H. Neff and D. M. Glowacki (2001). Ceramic Source Determination by Instrumental Neutron Activation Analysis in the American Southwest. In, *Ceramic Production and Circulation in the Greater Southwest: Source Determination by INAA and Complementary Mineralogical Investigations*, edited by D. M. Glowacki and H. Neff. The Cotsen Institute of Archaeology, UCLA

D. E. Arnold (2005). Linking Society with the Compositional Analyses of Pottery: A Model from Comparative Ethnography. In *Pottery Manufacturing Processes: Reconstitution and Interpretation*, edited by A. Livingstone Smith, D. Bosquet, and R. Martineau, pp. 15-21. BAR International Series 1349, Oxford.

Supplemental Readings

M. S. Tite (1999). Pottery Production, Distribution, and Consumption - The Contribution of the Physical Sciences. *Journal of Archaeological Method and Theory* Vol. 6(3), pp. 181-233.

Arnold, Dean E., Hector Neff, and Ronald Bishop (1991). Compositional Analysis and "Sources" of Pottery: An Ethnoarcheological Approach. *American Anthropologist* 93(1):70-90.

M. D. Glasscock (1992) Characterization of Archaeological Ceramics at MURR by Neutron Activation Analysis and Multivariate Statistics. In *Chemical Characterization of Ceramic Pastes in Archaeology*, edited by H. Neff, 11-26. Monographs in World Archaeology, No. 7, Madison, WI: Prehistory Press.

R. J. Speakman and H. Neff (2005). The Application of Laser Ablation ICP-MS to the Study of Archaeological Materials—An Introduction. In, *Laser Ablation ICP-MS in Archaeology*, edited by Robert J. Speakman and Hector Neff. University of New Mexico Press

J. M. Heidke, E. J. Miksa, and H. D. Wallace. (2001) A Petrographic Approach to Sand-Tempered Pottery Provenance Studies: Examples from Two Hohokam Local Systems. In, *Ceramic Production and Circulation in the Greater Southwest: Source Determination by INAA and Complementary Mineralogical Investigations*, edited by D. M. Glowacki and H. Neff. The Cotsen Institute of Archaeology, UCLA.

H. R. Neff, L. Bishop, and E. V. Sayre (1989) More Observations on the Problem of Tempering in Compositional Studies of Archaeological Ceramics. *The Journal of Archaeological Science* 15:57-69.

H. Neff, M. D. Glasscock, R. L. Bishop, and M. J. Blackman (1996) A reassessment of the Acid Extraction Approach to Compositional Characterization of Archaeological Ceramics. *American Antiquity* 61:389-404

M. Chen (2006) Physiochemical Compositional Analysis of Ceramics: A Case Study in Kenting, Taiwan. *Archaeometry* 48(4) 2006, pp. 565-580

Week 11: Ceramics and Society I: Ceramic Ecology

Required Readings

D. E. Arnold; D. L. Brockington; B. K. Chatterjee; J. C. Howry; W. H. Isbell, M Kresz; T. P. Myers; Y. Onuki; R. Pearson; S. Prasad; R. Ravines; J. S. Raymond; J. C. Sharma; S. Webster; R. Orr Whyte (1975) Ceramic Ecology of the Ayacucho Basin, Peru: Implications for Prehistory [and Comments and Replies] *Current Anthropology*, Vol. 16, No. 2. (Jun.1975), pp. 183-205.

Stark, Miriam (2003) Current Issues in Ceramic Ethnoarchaeology. *Journal of Archaeological Research* 11(3):193-242

C. L. Costin (2000) The Use of Ethnoarchaeology for the Archaeological Study of Ceramic Production. *Journal of Archaeological Method and Theory*, Vol. 7, No. 4

O. P. Gosselain (1994). Skimming Through Potter's Agendas: An Ethnoarchaeological Study of Clay Selection Strategies in Cameroon. In *Society, Culture, and Technology in Africa*, edited by S. Terry Childs, pp. 99-107. MASCA Research Papers in Science and Archaeology, Supplement to Volume 11. University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia.

Arnold, Dean E. (1971) The Ethnominerology of Ticul, Yucatan Potters: Emics and Etics. *American Antiquity* 36(1):20-40.

Houston, Stephen D., Karl A. Taube and David Stuart (1989) Folk classification of Classic Maya pottery. *American Anthropologist* 91(3):720-726.

Supplemental Readings

D. E. Arnold (1993). *Ecology and Ceramic Production in an Andean Community*. Cambridge University Press. [Chapters 4 and 9].

M. T. Stark and J. M. Skibo (2007) A History of the Kalinga Ethnoarchaeological Project. In *Archaeological Anthropology: Perspectives on Method and Theory*, pp. 93-110, edited by J. M. Skibo, M. W. Graves, and M. T. Stark. The University of Arizona Press.

M. T. Stark, R. L. Bishop, and E. Miksa. (2000) Ceramic Technology and Social Boundaries: Cultural Practices in Kalinga Clay Selection and Use. *Journal of Archaeological Method and Theory*, Vol. 7(4), pp. 295-331.

DeBoer, Warren R., and Donald W. Lathrap (1979) The Making and Breaking of Shipibo-Conibo Ceramics. In *Ethnoarchaeology: Implications of Ethnography for Archaeology*, Carol Kramer, ed., pp. 102-138. New York: Columbia University Press.

Kramer, C. (1985) Ceramic ethnoarchaeology. *Annual review of anthropology* 14: 77-102.

Arnold, Philip J. (2000) Working without a net: recent trends in ceramic ethnoarchaeology. *Journal of Archaeological Research* 8:105-33.

Kepton, William (1981) The Folk Classification of Ceramics: A Study of Cognitive Prototypes. Academic Press, New York. pp. 24-103.

Week 12: No Class - Fall Break

Week 13: Ceramics and Society II - Ceramic Economy

Required Readings

Rice Ch. 6

C. L. Costin (1991). Craft Specialization: Issues in Defining, Documenting, and Explaining the Organization of Production. In, *Archaeological Method and Theory*, Vol. 3, edited by M. B. Schiffer, pp. 1-56. University of Arizona Press, Tucson.

W. A. Longacre (1999) Standardization and Specialization: What's the Link?. In *Pottery and People: A Dynamic Interaction*, edited by J. M. Skibo and G. M. Feinman, pp. 44-58. The University of Utah Press, Salt Lake City

J. W. Eerkens, R. Bettinger (2001) Techniques for Assessing Standardization in Artifact Assemblages: Can We Scale Material Variability? *American Antiquity*, Vol. 66(3), pp. 493-504

D. E. Arnold (2000) Does the Standardization of Ceramic Pastes Really Mean Specialization? *Journal of Archaeological Method and Theory*, Vol. 7, No. 4, pp. 333-375

M. T. Stark (1991) Ceramic Production and Community Specialization: A Kalinga Ethnoarchaeological Study. *World Archaeology*, Vol. 23(1), pp. 64-78

Supplemental Readings

C. Orton, P. Tyers, and A. Vince (1993) *Pottery in Archaeology*. Cambridge University Press. [Chapter 15]

K. A. Spielmann (2002) Feasting, Craft Specialization, and the Ritual Mode of Production in Small-Scale Societies. *American Anthropologist* Vol. 104(1), pp. 195-207

B. J. Mills (2007). Performing the Feast: Visual Display and Suprahousehold Commensalism in the Puebloan Southwest. *American Antiquity* Vol. 72(2) 210-239.

S. E. Van Der Leeu (1984) Pottery Manufacture: Some Complications for the Study of Trade. In, *Pots and Potters: Current Approaches in Ceramic Archaeology*, edited by P. M. Rice, pp. 55-69. UCLA Institute of Archaeology, Monograph 24, University of California, Los Angeles

R. Roux. (2003) Ceramic Standardization and Intensity of Production: Quantifying Degrees of Specialization. *American Antiquity*, Vol. 68(4), pp. 768-782.

Underhill, Anne P. (2003) Investigating Variation in Organization of Ceramic Production: An Ethnoarchaeological Study in Guizhou, China. *Journal of Archaeological Method and Theory* 10(3):203-275.

D. E. Arnold (2000) Advantages and Disadvantages of Vertical-Half Molding Technology: Implications for Production Organization. In *Pottery and People: A Dynamic Interaction*, edited by J. M. Skibo and G. M. Feinman, pp. 59-80. The University of Utah Press, Salt Lake City

D. E. Arnold, H. Neff, M. D. Glascock (2000) Testing Assumptions of Neutron Activation Analysis: Communities, Workshops, and Paste Preparation in Yucatan Mexico. *Archaeometry* Vol. 42, pp. 301-316

C. L. Costin and M. B. Hagstrum (1995). Standardization, Labor Investment, Skill, and the Organization of Ceramic Production in Late Prehispanic Highland Peru. *American Antiquity* 60(4), pp. 619-639

P. M. Rice (1991) Specialization, Standardization, and Diversity: A Retrospective. In *The Ceramic Legacy of Anna O. Shepard*, edited by R.L. Bishop and F. W. Lange, pp. 257-279. University of Colorado Press, Niwot. (AVAILABLE ONLINE AS AN E-BOOK)

B. Stark. (1995) Problems in Analysis of Standardization and Specialization in Pottery. In, *Ceramic Production in the American Southwest*, edited by Barbara J. Mills and P. L. Crown. University of Arizona Press, Tucson.

K. G. Harry (2005) Ceramic Specialization and Agricultural Marginality: Do Ethnographic Models Explain the Development of Specialized Pottery Production in the Prehistoric American Southwest? *American Antiquity* 70(2), pp. 295-319.

Blitz, John H. (1993) Big Pots for Big Shots: Feasting and Storage in a Mississippian Community. *American Antiquity* 58:80-95.

I. Shimada and U. Wagner. (2007) A Holistic Approach to Pre-Hispanic Craft Production. In *Archaeological Anthropology: Perspectives on Method and Theory*, pp. 163-197, edited by J. M. Skibo, M. W. Graves, and M. T. Stark. The University of Arizona Press.

M. J. Blackman, G. J. Stein, P. B. Vandiver (1993) The Standardization Hypothesis and Ceramic Mass Production: Technological Compositional, and Metric Indexes of Craft Specialization at Ell Leilan, Syria. *American Antiquity* Vol. 58(1), pp. 60-80

Week 14: Ceramics and Society III: Ceramic Sociology

Required Readings

Rice, Prudence M. (1999) On the Origins of Pottery. *Journal of Archaeological Method and Theory* 6:1-54.

Eerkens, Jelmer W. (2003) Residential mobility and pottery use in the western Great Basin. *Current anthropology* 44(5):728-738.

Underhill, Anne P. (1991) Pottery Production in Chiefdoms: The Longshan Period in Northern China. *World Archaeology* 23(1): 12-27.

C. M. Sinopoli (1988) The Organization of Craft Production at Vijayanagara, South India. *American Anthropologist* 90(3), pp. 580-597

W. Bernardini (2000) Kiln Firing Groups: Inter-Household Economic Collaboration and Social Organization in the Northern American Southwest. *American Antiquity*, Vol. 65(2), pp. 365-377

M. T. Stark. (1992). From Sibling to Suki: Social Relations and Spatial Proximity in Kalinga Pottery Exchange. *Journal of Anthropological Archaeology*, Vol. 11(2) pp. 137-151

Supplemental Readings

Longacre, William A. (1995) Why did they invent pottery anyway? In *The Emergence of Pottery: Technology and Innovation in Ancient Societies*, edited by W. K. Barnett and J. W. Hoopes, pp. 277-280. Smithsonian Institution Press, Washington.

Crown, Patricia L. and W. H. Wills (1995) Origins of Southwestern ceramic containers: women's time allocation and economic intensification. *Journal of anthropological research* 51(2):173-186.

Mills, Barbara (1999) Ceramics and Social Contexts of Food Consumption in the Northern Southwest. In *Pottery and People: A Dynamic Interaction*, edited by James M. Skibo and Gary M. Feinman, pp. 99-114. University of Utah Press, Salt Lake City.

Eerkens, Jelmer W., Hector Neff, and Michael D. Glascock (2002) Ceramic Production among Small-Scale and Mobile Hunters and Gatherers: A Case Study from the Southwestern Great Basin. *Journal of Anthropological Archaeology* 21(2): 200-229.

Reid, Kenneth C. (1989) A Materials Science Perspective on Hunter-Gatherer Pottery. In *Pottery Technology: Ideas and Approaches*, edited by G. Bronitsky, pp. 167-180. Westview Press, Boulder, Colorado.

Graves, M. (1991) Pottery production and distribution among the Kalinga: a study of household and regional organization and differentiation. In W. Longacre, ed., *Ceramic ethnoarchaeology*. pp. 112-143. Tucson: University of Arizona Press.

W. A. Longacre and M. T. Stark (1992). Ceramics, kinship, and space: A Kalinga example. *Journal of Anthropological Archaeology*, Vol. 11(2), pp. 125-136

Nelson, Ben A., C. G. Turner, II and L. Lofgren (1981) Ethnoarchaeology and paleodemography : a test of Turner and Lofgren's hypothesis. *Journal of anthropological research* 37:107-129.

Turner II, C. G. and L. Lofgren (1966) Household size of prehistoric western Pueblo Indians. *Southwestern Journal of Anthropology* 22:117-32.

B. J. Bowser (2000) From Pottery to Politics: An Ethnoarchaeological Study of Political Factionalism, Ethnicity, and Domestic Pottery Style in the Ecuadorian Amazon. *Journal of Archaeological Method and Theory* Vol. 7(3), pp. 219-248.

Dietler, M., and I. Herbich (1998) Habitus, techniques, style: an integrated approach to the social understanding of material culture and boundaries. In M. Stark, ed., *The Archaeology of social boundaries*. pp. 242-273. Washington D.C.: Smithsonian Institution Press.

L. G. Cecil and H, Neff (2006). Postclassic Maya slips and paints and their relationship to socio-political groups in El Petén, Guatemala. *Journal of Archaeological Science*, Vol. 33(10), pp. 1482-1491

C. M. Sinopoli (1999) Levels of Complexity: Ceramic Variability at Vigayanagra. In *Pottery and People: A Dynamic Interaction*, edited by J. M. Skibo and G. M. Feinman, pp. 115-136. University of Utah Press

M. G. Hodge, L. D. Minc (1990). The Spatial Patterning of Aztec Ceramics: Implications for Prehispanic Exchange Systems in the Valley of Mexico. *Journal of Field Archaeology*, Vol. 17(4), pp. 415-437.

Week 15: Ceramics and Society IV - The Present and Future of Ceramics Research

Required Readings

S. G. Ortman, Scott G. (2000). Conceptual Metaphor in the Archaeological Record: Methods and an Example From The American Southwest. *American Antiquity* : 65:613-645.

K. A. Spielmann, J. L. Mobley-Tanaka, and J. M. Potter (2006). Style and Resistance in the Seventeenth-Century Salinas Province. *American Antiquity* Vol. 71(4), pp. 621-648.

H. L. Loney (2000). Society and Technological Control: A Critical Review of Models of Technological Change in Ceramic Studies. *American Antiquity*, Vol. 65(4), pp. 646-668.

P. L. Crown (2007) Learning About Learning. In *Archaeological Anthropology: Perspectives on Method and Theory*, pp. 198-217, edited by J. M. Skibo, M. W. Graves, and M. T. Stark. The University of Arizona Press.

Charles R. Cobb, and Eric Drake (2008) The Colour of Time: Head Pots and Temporal Convergences. *Cambridge Archaeological Journal* 18(1):85-93

Supplemental Readings

M. T. Stark (2006) Glaze Ware Technology, the Social Lives of Pots, and Communities of Practice in the Late Prehistoric Southwest. In, *Social Life Of Pots: Glaze Wares And Cultural Dynamics In The Southwest, AD 1250-1680*, pp. 17-33. edited by Judith A. Habicht-Mauche, Suzanne L. Eckert, and Deborah L. Huntley

M. Hegmon and S. Kulow (2005) Painting as Agency, Style as Structure: Innovations in Mimbres Pottery Designs from Southwest New Mexico. *Journal of Archaeological Method and Theory* Vol. 12(4), pp. 313-344.

Chilton, E. (1999) One Size Fits All: Typology and Alternatives for Ceramic Research. In, *Material Meanings: Critical Approaches to the Interpretation of Material Culture*, edited by E. Chilton, pp. 44-60. (AVAILABLE ON-LINE AS AN E-BOOK)

M. T. Stark (1999) Social Dimensions of Technical Choice in Kalinga Ceramic Traditions. In, *Material Meanings: Critical Approaches to the Interpretation of Material Culture*, edited by E. Chilton, pp. 24-43. (AVAILABLE ON-LINE AS AN E-BOOK)

P. L. Crown (1999) Socialization in American Southwest Pottery Decoration. In *Pottery and People: A Dynamic Interaction*, edited by J. M. Skibo and G. M. Feinman. The University of Utah Press, Salt Lake City

P. W. Capone and R.W. Preucel (2002). Ceramic Semiotics: Women, Pottery, and Social Meanings at Kotyiti Pueblo. In, *Archaeologies of the Pueblo Revolt*, edited by R. W. Preucel, University of New Mexico Press.

Week 16: Project Presentations are Due on Thursday Dec 10.

Calendar

august 2009

monday	tuesday	wednesday	thursday	readings	outside work
24	25	26	27	Week 1	
			Introduction to the course	Rice: Ch. 1	Work on pot
			U build a pot	Ortega: 2005	
				Gosselain: 1999	

september 2009

monday	tuesday	wednesday	thursday	readings	outside work
	1	2	3	Week 2	
	Lecture: Ceramic Technology I: The Physical Properties of Raw Materials PowerPoint Lecture		Lab: pottery manufacture experiment design		work on pot work on experiment
7	8	9	10	Week 3	
	Lecture: Ceramic Technology II: The Physical Properties of Ceramics and Firing PowerPoint Lecture		Lab: project time No lab this week work on your pot		work on pot work on experiment
		Sunday out of town			
14	15	16	17	Week 4	
Sunday returns Dallas	Lecture: Ceramic Technology III: The Physical Properties of Form and Function PowerPoint Lecture		Lab: review and critique pot, Introduction to lab analysis Review progress		Finished pot is due on Thursday (fired)
21	22	23	24	Week 5	
	Lecture: Ceramic Technology IV: Use, Reuse, and Residue PowerPoint Lecture		Lab: ceramic analysis project: set up and instruction		work on experiment
28	29	30		Week 6	
	Lecture: Ceramic Methodologies I Counting, Formation and Estimation Guided discussion				See next page for outside work

october 2009

monday	tuesday	wednesday	thursday	readings	outside work
			1	Week 6	
			Lab: ceramic analysis instruction, collections work		work on ceramic analysis project work on experiment
5	6	7	8	Week 7	
	Lecture: Ceramic Methodologies II Classification and Seriation <i>Guided discussion</i>		No lab work on projects		work on ceramic analysis project work on experiment
		Sunday out of town			
12	13	14	15	Week 8	
	Fall Break No class		No lab work on projects	No readings this week	work on ceramic analysis project
Sunday out of town					
19	20	21	22	Week 9	
	Lecture: Ceramic Methodologies III Style, Symmetry and Design <i>Guided discussion</i>		Lab: Ceramic Experiments Due Review		ceramic experiments due
Sunday returns Dallas					
26	27	28	29	Week 10	
	Lecture: Ceramic Methodologies IV Compositional Studies <i>Guided discussion</i>		Lab: guided work on ceramic analysis project		work on ceramic analysis project

november 2009

monday	tuesday	wednesday	thursday	readings	outside work
2	3 Lecture: Ceramics and Society I Ceramic Ecology <i>Guided discussion</i>	4	5 Lab: guided work on ceramic analysis project	Week 11	work on ceramic analysis project
9	10 No class work on projects	11	12 No lab work on projects	Week 12	work on ceramic analysis project
Sunday out of town					
16	17 Lecture: Ceramics and Society II: Ceramic Economy <i>Guided discussion</i>	18	19 Lab: last day of collections analysis	Week 13	Begin write-up of ceramic analysis project
Sunday return Dallas					
23	24 Lecture: Ceramics and Society III: Ceramic Sociology <i>Guided discussion</i>	25	26 Thanksgiving No class	Week 14	Project write-up
Sunday out of town					

december 2009

monday	tuesday	wednesday	thursday	readings	outside work
	1 Lecture: Ceramics and Society IV The Present and Future of Ceramics Research <i>Guided discussion</i>	2	3 No lab work on write up	Week 15	Project write-up
Sunday return Dallas					
7	8 Lecture: No class prepare projects	9	10 Last day of class projects due	Week 16 No readings this week	Project write-up

Additional Recommended Literature

The Essentials

Rice, Prudence M. (1987) *Pottery Analysis: A Sourcebook*. University of Chicago Press, Chicago.

This is the most comprehensive of the books currently available. It deals with almost every topic related to the archaeological analysis of pottery. It is an excellent reference book. This was reprinted in 2006.

Rice followed up the book with a pair of articles in 1996 that might be considered an appendix. These deal with most of the ceramic literature between the release of her book and 1996.

Rice, Prudence (1996a) Recent Ceramic Analysis: 1. Function, Style, and Origins. *Journal of Archaeological Research* 4:133-163.

Rice, Prudence (1996b) Recent Ceramic Analysis: 2. Composition, Production, and Theory. *Journal of Archaeological Research* 4:165-202.

Shepard, Anna Osler (1956) *Ceramics for the Archaeologist*. Carnegie Institution of Washington, Washington.

The foundational book. It is still relevant on many topics. It is also available free online at: http://www.ciw.edu/publications_online/ceramics_archaeologist/default.html

Sinopoli, Carla M. (1991) *Approaches to Archaeological Ceramics*. Plenum Press, New York.

This book assumes the reader has access to the Rice and Shepard volumes and focuses on the anthropological and archaeological questions that can be addressed with ceramics.

Rye, Owen S. (1981) *Pottery technology : principles and reconstruction*. Manuals on archeology. 4. Taraxacum, Washington, D.C.

This book is an excellent introduction to pottery technology. It is both readable and comprehensive.

Arnold, Dean E. (1985) *Ceramic theory and cultural process*. New studies in archaeology. Cambridge University Press, Cambridge ; New York.

This book provides the standard ecological model for evaluating pottery manufacture

Useful Source Books

Barnett, William and John W. Hoopes (1995) *The emergence of pottery : technology and innovation in ancient societies*. Smithsonian series in archaeological inquiry. Smithsonian Institution Press, Washington.

Collection of papers on the origin of pottery around the world.

Orton, Clive, Paul Tyers and A. G. Vince (1993) *Pottery in archaeology*. Cambridge manuals in archaeology. Cambridge University Press, Cambridge ; New York, NY, USA.

Very useful summary of most aspects of ceramic analysis. Includes a chapter on how to set up analysis in the field

Velde, Bruce and Isabelle C. Druc (1998) *Archaeological Ceramic Materials*. Springer-Verlag, Berlin.

Contains excellent chapters on the physical properties of clay and raw materials. Very good book on pottery technology.

Important Edited Volumes

R. J. Speakman and H. Neff (2005) *Laser Ablation ICP-MS in Archaeology*, edited by Robert J. Speakman and Hector Neff. University of New Mexico Press

D. M. Glowacki and H. Neff (2001) *Ceramic Production and Circulation in the Greater Southwest: Source Determination by INAA and Complementary Mineralogical Investigations*. The Cotsen Institute of Archaeology, UCLA.

E. Chilton (1999) *Material Meanings: Critical Approaches to the Interpretation of Material Culture*. University of Utah Press.

Skibo, James M and Gary M. Feinman (1999) *Pottery and people a dynamic interaction*. Foundations of archaeological inquiry. University of Utah Press, Salt Lake City.

H. Neff (1992) *Chemical Characterization of Ceramic Pastes in Archaeology*. Monographs in World Archaeology, No. 7, Madison, WI: Prehistory Press.

Bishop, Ronald L. and Frederick W. Lange (1991) *The Ceramic legacy of Anna O. Shepard*. 1st ed. University Press of Colorado, Niwot, Colo.

Longacre, William A. and School of American Research (Santa Fe N.M.) (1991) *Ceramic ethnoarchaeology*. University of Arizona Press, Tucson.

Leeuw, Sander Ernst van der and Alison C. Pritchard (1984) *The Many dimensions of pottery : ceramics in archaeology and anthropology*. Cingula ; 7. Universiteit van Amsterdam, Amsterdam.

Franklin, Alan D. and Jacqueline S. Olin (1982) *Archaeological ceramics*. Smithsonian Institution Press, Washington, D.C.