DEPARTMENT OF ANTHROPOLOGY
ANTH 3235 FAO Ceramic Analysis

Fall 2024

CONTACT INFORMATION

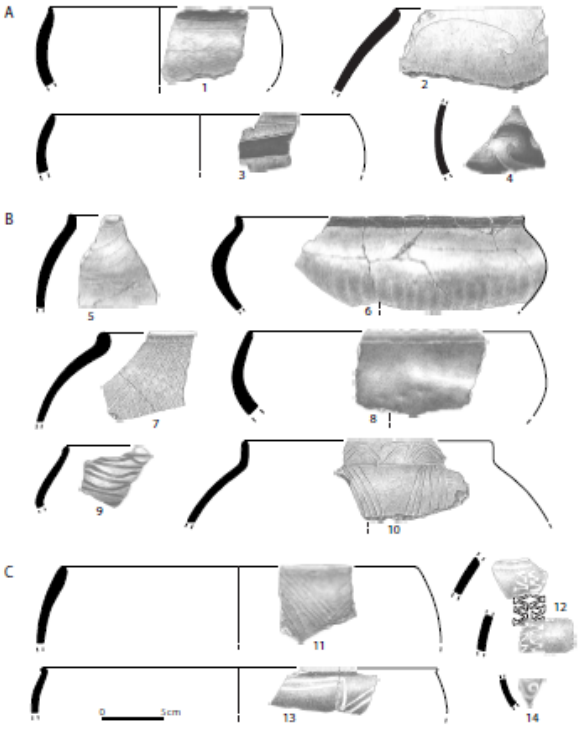
Instructor: Dr Timothy Kaiser
Office: OA 3008
Office hours: by appointment
Email: tkaiser@lakeheadu.ca
Course Website: MyCourseLink (D2L)

DELIVERY MODE/LOCATION

Lecture: OA 2010 Tuesday & Thursday 4-5:30 pm
Lab: OA 3001 Friday 2:30 – 5:30 pm

COURSE DESCRIPTION

The analysis of ceramics, combining archaeology and ethnology. From prehistory to the present, people have used clay to form pottery and other objects. How can ceramic evidence permit inferences about societies past and present? Topics include the chemistry and mineralogy of clays; physical properties of ceramics; techniques of pottery production; organization of ceramic data; analysis of pottery style, form and function; instrumental analysis; and frameworks for interpreting the societies, politics, and economies of pottery makers and users. Perspectives from archaeology and ethnology are joined with the development of hands-on laboratory skills including drawing pottery, analyzing fabric, working with a ceramics database, and creating typologies.



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SUPPLEMENTARY COURSE DESCRIPTION

Archaeologists analyze and interpret ceramics, mostly pottery vessels, in order to learn about the past. Ceramics can be used to create a timeline – a chronology of events and processes. Pottery is often capable of elucidating the interactions between different areas and people. Ceramics sometimes indicate what activities were carried out at particular sites. This course focuses on how ceramics and information about ceramics may be recovered and how they might be interpreted.

At first, we will learn about pottery technology. We begin with the physical and chemical characteristics of clay and temper and then go on to a consideration of how useful ceramic vessels are created from clay. Then we will learn how archaeologists have used pots and potsherds to answer questions about the past. Finally, we will consider case studies presented by students. Presentations will summarize the manufacture and use of particular types of ceramics in some chosen geographic area of interest.

COURSE OUTCOMES

By the end of this class you will be able to: (i) explain the physical processes of pottery production, (ii) explain the relevance of the societal contexts within which the production may have taken place, (iii) critically evaluate published work relating to archaeological ceramics, (iv) evaluate the relevance and applicability of various methods of ceramic analysis; (v) employ some archaeological techniques for the analysis and interpretation of ceramic materials; and (vi) devise an effective research plan for the analysis of archaeological ceramic material.

REQUIRED MATERIALS

Prudence Rice, *Pottery Analysis: A Sourcebook, 2nd ed.* (2015) University of Chicago Press
Drafting materials, see Lab 3 instructions, MyCourseLink.

ADDITIONAL MATERIALS

Recommended:

Collett, Lesley
2008 An Introduction to Drawing Archaeological Pottery. IFA Professional Practice Paper 10. Reading: University of Reading Institute for Archaeologists.

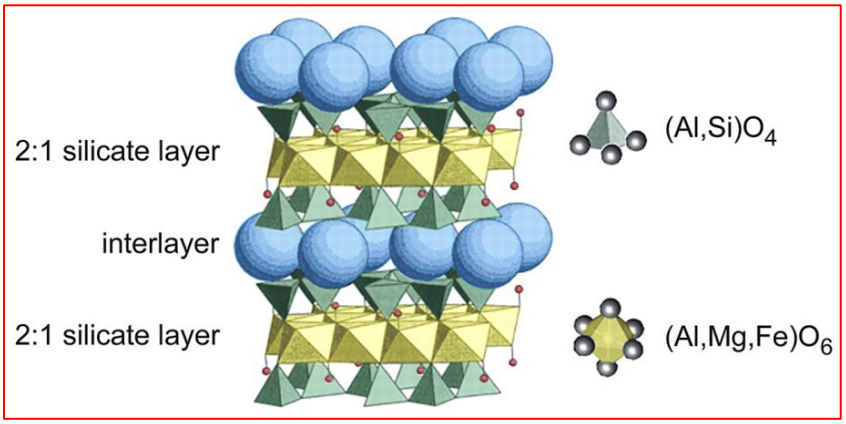
Orton, Clive, Paul Tyers, and Alan Vince
1993 *Pottery in Archaeology*. Cambridge

Skibo, James and Gary Feinman
1998 *Pottery and People*. Utah

Sinopoli, Carla
1991 *Approaches to Archaeological Ceramics*. Springer.

Shepard, Anna
1982 *Ceramics for the Archaeologist* The full-text PDF is available for free online at http://www.carnegieinstitution.org/publications_online/Ceramics_Arch.pdf

Rice, Prudence
1996a Recent Ceramic Analysis: 1. Function, Style, and Origins. *Journal of Archaeological Research* 4:133-163.
1996b Recent Ceramic Analysis: 2. Composition, Production, and Theory. *Journal of Archaeological Research* 4: 165-202.



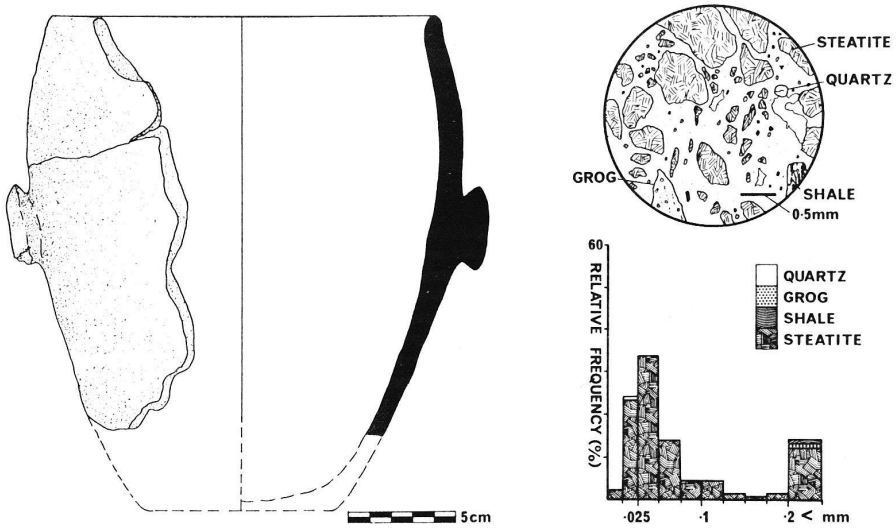
EVALUATION

Component	Value	Due Date
Labs x 8	8x5 = 40%	See below
Reading responses x 6	6x3.3% = 20%	Weeks 3-6, 8, and 9
Presentation and supporting documentation	40%	Weeks 11 - 12

Labs:
There will be nine lab sessions. Eight of these will have a hands-on component and a written component. Due dates will vary; see specific instructions.

Reading responses:
Answer a few short questions assessing your understanding of, or reactions to, the assigned chapters or papers in Weeks 3-6 and 8-9. A rapid response is expected. No extensions.

Assignment:
You will prepare and, ready to answer questions, then deliver a presentation that summarizes what is known about a particular ceramic tradition, i.e., the manufacture and use of (a) particular type(s) of pottery or other fired-clay material(s) in some chosen geographic area of interest in the ethnographic present or the archaeological past. Students will conduct independent bibliographic research which they will report as an annotated bibliography, and then synthesize as a class presentation. Detailed instructions will be found on MyCourseLink.



COURSE SCHEDULE

Week	Date	Topic and • **Required** and Recommended/related readings
1	***Sept 3-6***	**Introduction to the course**
		LAB 1: Introduction to the laboratory
2	***Sept 10-13***	**Properties of ceramics and their analysis** • Rice *Pottery Analysis: A Sourcebook* Ch 1, 12 Recommended/related: Orton, C., *et al*. Chapters 1 and 2 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. Eiselt, 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
		LAB 2: Breaking Pots • DeBoer, W. R., and Lathrap, D. W. (1979). The Making and Breaking of Shipibo-Conibo Ceramics. In C. Kramer (ed) Ethnoarchaeology: Implication of Ethnography for Archaeology, pp. 102–138. Columbia University Press, New York.
3	***Sept 17-20***	**Ceramic materials** • Rice, Ch. 2 • C. Orton, *et al*. Chapter 5 • Watch *Ceramic Composition with Dr Lindsay Bloch Florida Museum* https://www.youtube.com/watch?v=IZ3LrLI5LzE Recommended/related: Velde, B. and I. C. Druc (1999). *Archaeological Ceramic Materials: Origin and Utilization*. Springer-Verlag Berlin Heidelberg. Read Chapters 2, 3 and 4 Arnold, D.E. (1971) The Ethnomineralogy of Ticul, Yucatan Potters: Emics and Etics. *American Antiquity* 36(1):20-40. Nicholson, P. and H. Patterson (1985) Pottery making in Upper Egypt: an ethnoarchaeological study. *World Archaeology* 17(2): 222-239.
		LAB 3: Drawing pottery

4 ***Sept 24-27*** **Physical properties of clay minerals and inclusions**

- Rice, Ch 3-7

Recommended/related:

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.

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

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

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

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.

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.

Martineau, R. (2005) Identification of the "Beater and Anvil" Technique in Neolithic Contexts: An Experimental Approach. In *Pottery Manufacturing Processes: Reconstitution and Interpretation,* edited by A. Livingstone Smith, D. Bosquet, and R. Martineau, pp. 147-156. BAR International Series 1349, Oxford.

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

Lab 4: Making pastes

5 ***Oct 1-4*** **Making Pottery**

- Rice, Ch. 8-11
- Watch *Dig Deeper: Pottery (Coil Technique)* https://www.youtube.com/watch?v=UgEY-wt-BCg

LAB 5: Forming pots

6 ***Oct 8-11*** **Ceramic styles, designs and decorations**

- Rice, Ch. 24

Recommended/related:

Watson, P. J. (1977). Design Analysis of Painted Pottery. *American Antiquity* 42:381-393.

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.

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

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

Hegmon, M. 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.

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

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

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

Arnold, D.E. (1984) Social Interaction and Ceramic Design: Community-wide Correlations in Quinua, 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

Bowser, B.J. (2000) From Pottery to Politics: An Ethnoarcheological 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.

NO LAB

	Oct 14-18	**FALL STUDY BREAK**
7	***Oct 26-28***	**Analysis of pottery from archaeological contexts** • Rice, Ch 14, 17-19, 23 • Kaiser, T. (1989) Steatite-tempered pottery from Selevac: A Neolithic experiment in ceramic design. *Archeomaterials* 3(1): 1-10. • Amicone, Sl, AR Mathur, RD Pavitra, N Miković-Marić, I Pantović, and J Kuzmanović-Cvetković. Beneath the surface: Exploring variability in pottery paste recipes within Vinča culture. *Quaternary International* 560-561: 86-101

Recommended/related:

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

Stoltman, J.B. (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

Neff, H., and D. M. Glowacki (2001). Ceramic Source Determination by Instrumental Neutron Activation Analysis in the American Southwest. *Hector Neff and Donna M. Glowacki*. 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 M.

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

Speakman, R.J. 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

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

Arnold, D.E. (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.

Heidke, J.M., 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.

Neff, H.R.., 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.

Neff, H., 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

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

LAB 6: Characterization – macroscopic and microscopic; drawing pots #2.

8	***Oct 29-Nov 1***	**Classification and chronology** • Rice, Ch 13 Recommended/related: Smith, E. (1979) A Further Criticism of the Type-Variety System: The Data can't be Used. *American Antiquity* 44(4): 822-826. Whallon, R.J. (1972) A New Approach to Pottery Typology. *American Antiquity* 37:13-33. Marquardt, W. (1978) Advances in Archaeological Seriation. *Advances in Archaeological Method and Theory* 1: 257-314. Culbert, T., 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. Kaplan, F.S. 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. Arnold, P.J. (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.
		LAB 7: Bag o' sherds #1 **Coding system design and analysis of a sample of Neolithic pot sherds.**
9	***Nov 5-8***	**Ceramic ecology** • Costin, C.L. (2000) The Use of Ethnoarchaeology for the Archaeological Study of Ceramic Production. *Journal of Archaeological Method and Theory, Vol. 7, No. 4* • Stark, M.T. (2003) Current Issues in Ceramic Ethnoarchaeology. *Journal of Archaeological Research* 11(3):193-242 Recommended/related: Arnold, D.E., 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* 16: 183-205. Costin, C.L. (2000) The Use of Ethnoarchaeology for the Archaeological Study of Ceramic Production. *Journal of Archaeological Method and Theory, Vol. 7, No. 4* Stark, M.T. (2003) Current Issues in Ceramic Ethnoarchaeology. *Journal of Archaeological Research* 11(3):193-242

Arnold, D.E. (2003). Ecology and Ceramic Production in an Andean Community. Cambridge University Press. Read Chapters 4 and 9.

Stark, M. and J. M. Skibo (2007) A History of the Kalinga Ethnoarcaheological 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.

Abbott, D.R. (2007). The process, location, and history of Hohokam Buff ware production: some experimental and analytical results. *Journal of Archaeological Science*

Stark, M.T., 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.

LAB 8: Bag o' sherds #2. Analysis of a sample of Neolithic pot sherds. Assessment of fired paste samples.

10 ***Nov 12-15*** **Ceramics and societies**

Robb, J. (2007) The Early Mediterranean Village, pp. 159-186.

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

Tani, M. (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.

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

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

Sinopoli, C.M. (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

Smith, M.L. (1999). The Role of Ordinary Goods in Premodern Exchange. *Journal of Archaeological Method and Theory,* Vol. 6(2), pp. 109-135.

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

Hodge, M.G., 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.

Bray, T.L., L. D. Minc, M. C. Ceruti, J. A. Chávez, R. Perea and J. Reinhard (2005). A compositional analysis of pottery vessels associated with the Inca ritual of capacocha *Journal of Anthropological Archaeology*,Vol. 24(1), pp. 82-100

Pollock, S. (1983). Style and information: An analysis of Susiana ceramics *Journal of Anthropological Archaeology*, Vol. 2(4), pp. 354-390

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

Bernardini, W. (2005) Reconsidering Spatial and Temporal Aspects of Prehistoric Cultural Identity: A Case Study from the American Southwest. *American Antiquity*. Vol. 70(1):31-54

Lab 9: Seriation

11 ***Nov 19-22*** **RESEARCH PRESENTATIONS**

12 ***Nov 26-29*** **RESEARCH PRESENTATIONS**

Conclusion

COURSE POLICIES

- It is your responsibility to attend classes and to do the readings. Regular absences may seriously affect your grade in this course.
- Any important announcements, including changes in due dates, will be announced in-class, and posted on MyCourseLink (D2L).
- To aid your review, course material will be posted on MyCourseLink at regular intervals.
- Any course work not submitted on time ***will be subject to a 5% deduction per day of unexcused lateness***. **No course work that is more than 10 days late will receive a mark.**

GenAI Use Prohibited

Generative artificial intelligence (Generative AI or GenAI) is a category of AI systems capable of generating text, images, or other media in response to prompts. These systems include ChatGPT and its variant Bing (built by OpenAI) and Bard (built by Google) among several others. Other Generative AI models include artificial intelligence art systems such as Stable Diffusion, Midjourney, and DALL-E. Any use of GenAI systems to produce assignments for this course is not permitted. All work submitted for evaluation in this course must be the student's original work. The submission of any work containing AI generated content will be considered a violation of academic integrity ("Use of Unauthorized Materials").

Academic Integrity

A breach of Academic Integrity is a serious offence. The principle of Academic Integrity, particularly of doing one's own work, documenting properly (including use of quotation marks, appropriate paraphrasing and referencing/citation), collaborating appropriately, and avoiding misrepresentation, is a core principle in university study. Students are strongly advised to familiarize themselves with the Student Code of Conduct - Academic Integrity ("The Code") - and, in particular, sections 26 and 83 through 85. Non-compliance with the Code will NOT be tolerated in this course and the Code will be adhered to in terms of disciplinary action. The Code provides a full description of academic offences, procedures when Academic Integrity breaches are suspected and sanctions for breaches of Academic Integrity.

Exam/Assignment Integrity

By being registered in ANTH 3235 you understand and agree that:
(a) Unless otherwise allowed by the course instructor, you must complete the assignments in this course without the assistance of anyone else.
(b) Unless otherwise allowed by the course instructor, you must not access any sources or materials (in print, online, or in any other way) to complete any course exam.
You further understand and agree that, if you violate either of these two rules, or if you provide any false or misleading information about my completion of course assignments or exams, you may be prosecuted under the Lakehead University Student Code of Conduct – Academic Integrity, which requires students to act ethically and with integrity in academic matters and to demonstrate behaviours that support the University's academic values.

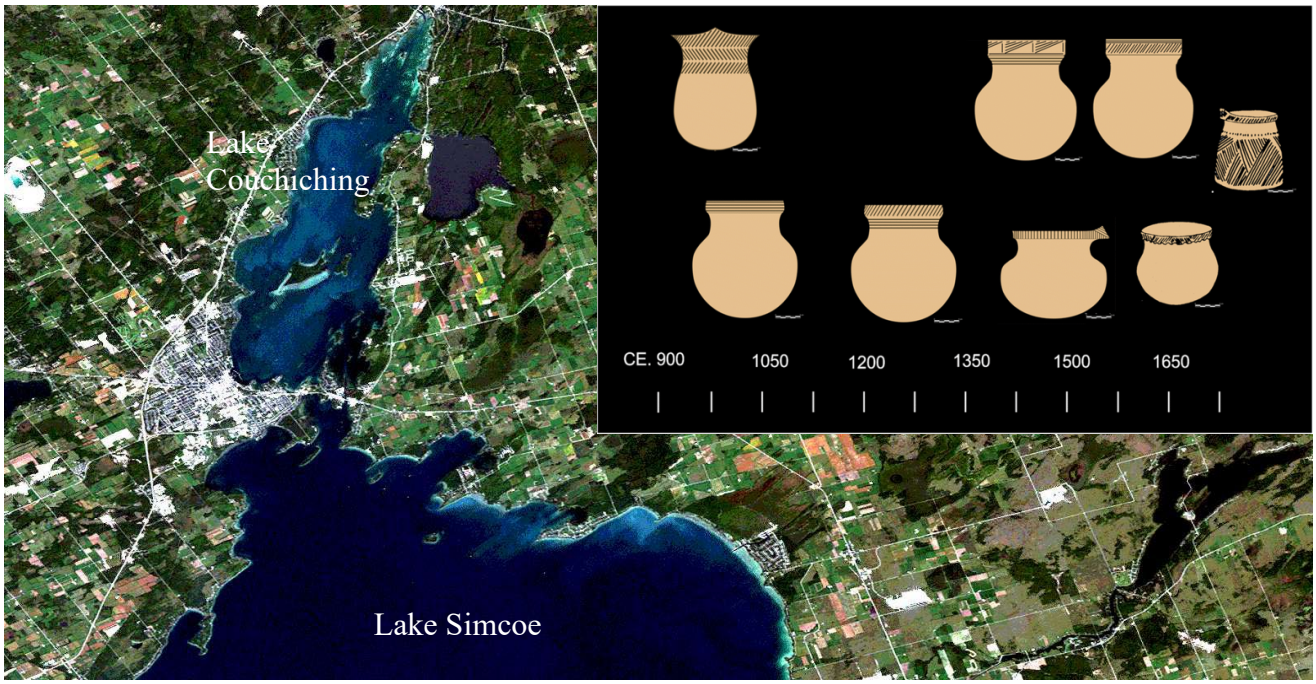
Copyright Compliance

By being registered in ANTH 3235, you agree to the following conditions of copyright compliance:
You understand and agree that all instructional, reference, and administrative materials to which you are given access in this course (the "course materials"), whether they consist of text, still or kinetic images, or sound, whether they are in digital or hard copy formats, and in whatever media they are offered, are protected in their entirety by copyright, and that to comply with this copyright and the law:
(a) You may access and download the course materials only for your own personal and non-commercial use for this course; and (b) You are not permitted to download, copy, store (in any medium), forward or share, transmit, broadcast, show, post or play in public, adapt, or change in any way any text, image, or sound component of the course materials for any other purpose whatsoever except as expressly authorized, and only to the extent authorized, in writing, by the course instructor.
You further understand and agree that, if you infringe the copyright of the course materials in any way, you may be prosecuted under the Lakehead University Student Code of Conduct – Academic Integrity, which requires students to act ethically and with integrity in academic matters and to demonstrate behaviours that support the University's academic values.

STUDENT ACCESSIBILITY SERVICES

Lakehead University is committed to achieving full accessibility for persons with disabilities/medical conditions. Part of this commitment includes arranging academic accommodations for students with disabilities/medical conditions to ensure they have an equitable opportunity to participate in all of their academic activities. If you are a student with a disability/medical condition and think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible. For more information, please email sas@lakeheadu.ca or visit https://www.lakeheadu.ca/faculty-and-staff/departments/services/sas

We respectfully acknowledge that Lakehead University campuses are located on the traditional lands of Indigenous peoples. Lakehead Orillia is located on the traditional territory of the Anishinaabeg. The Anishinaabeg include the Ojibwe, Odawa, and Pottawatomi nations, collectively known as the Three Fires Confederacy. Lakehead University acknowledges the history that many nations hold in the areas around our campuses, and is committed to a relationship with First Nations, Métis, and Inuit peoples based on the principles of mutual trust, respect, reciprocity, and collaboration in the spirit of reconciliation.



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https://www.researchgate.net/publication/345262778_Learning_from_Each_Other_a_Communities_of_Practice_Approach_to_Decorative_Traditions_of_Northern_Iroquoian_Communities_in_the_Late_Woodland/figures?lo=1