

University of Colorado, Colorado Springs
Center for Cognitive Archaeology
ANTH 4200/5200: Cognition and Cosmology

Professor: Marc A. Abramiuk, Ph.D., RPA

Email: mabramiuk@hotmail.com

Phone: 775-240-1834

Office Hours: Coordinate appointments via email.

COURSE DESCRIPTION

This course will introduce students to the foundations of ideational cognitive archaeology and the methods used in reconstructing past human mind frames.

COURSE OBJECTIVES

1. The foundations of ideational cognitive archaeology are supported by empirical research in evolutionary cognitive archaeology, cognitive anthropology, and more generally in cognitive science. We will discuss these foundations and how they relate to this body research.
2. We will then look at how the methods that ideational cognitive archaeologists use to infer past human mind frames spring from these foundations. We will look at examples of these inferences being made in various archaeological contexts across the globe.
3. On a fundamental level, we will be learning about “*how* ideational cognitive archaeologists know *what* they know.” This an epistemological query that we will address primarily through inferences based on a cognitive scientific understanding of how the mind works.
4. Of course, how the mind works depends on biology and culture. Therefore, ideational cognitive methods have temporal constraints that evolutionary cognitive archaeology can shed light on and that we will learn more about in this course.

COURSE COMPETENCIES

1. A successful student will demonstrate knowledge of:
 - a) The approaches ideational cognitive archaeologists use to infer past human mind frames
 - b) The scientific bases for these inferential approaches
 - c) How to infer past human mind frames in their own research and support their inferences
2. Students will gain an understanding of how the modern human mind works, both in terms of its universal attributes and its particular attributes.
3. This understanding will be achieved through students attaining a firm grasp of the cross cultural cognitive research that reveals these attributes of the modern mind.
4. Students will learn, however, that there are limitations to extending what we know of how the modern mind works into the past in order to elicit what people in the past thought. The limits of our knowledge depend on when the modern mind first emerged as well as what sorts of mind frames the cognitive archaeologist is in pursuit of in the past.
5. Students will learn to consider these limitations when designing their research and employing

the respective approach for gleaning insight into past human mind frames.

6. More generally, students will learn to appreciate how culture and biology affects the ways people think.
7. Through the course content, students will learn to appreciate the diversity as well as commonality entailed in human thought, which will aid them in a multi-cultural, global environment.
8. Students who are majoring in a variety of different subjects/disciplines will understand the importance of interdisciplinary research which will aid them in an increasingly multi disciplinary world.
9. Students will strengthen their inductive and deductive inferential capacities through examinations consisting of objective and essay assignments
10. Students will strengthen critical thinking skills, which will serve them in future courses and other pursuits through the written assignments and exam essays.

COURSE OUTLINE WITH REQUIRED READING

INTRODUCTION

Week 1, Course expectations and early attempts by archaeologists to infer past human mind frames: Course expectations; early attempts at inferring past human mind frames. • Reading: (Excerpts from: Kenyon 1957; Ruz 1953; Wheeler 1943; Woolley 1929) • Assignment: Online comprehension quiz

Week 2, Introduction to the field of ideational cognitive archaeology: Introduction to cognitive archaeology and how ideational cognitive archaeology emerged out of developments in archaeological theory.

- Reading: (Abramiuk 2012:1–20; Abramiuk 2015; Renfrew 1982)
- Assignment: Online comprehension quiz

EARLY ARCHAEOLOGICAL PERSPECTIVES ON THE MIND

Week 3, The rational and universal mind: How some archaeologists came to view the mind as rational and universal; the related archaeological findings and paleoanthropological research that supported this view; the emergence of methods for studying this aspect of the mind.

- Reading: (Abramiuk 2012:21–33; Binford 1973; Renfrew 1994a; Renfrew 2001) •
- Assignment: Online comprehension quiz

Week 4, The empirical and relative mind: How some archaeologists came to view the mind as empirical and culturally relative; the related archaeological findings and paleoanthropological research that supported this view; the emergence of methods for studying this aspects of the mind.

- Reading: (Abramiuk 2012:33–47; Bordes 1973; Hodder 1982a, 1982b:212–229) •
- Assignment: Online comprehension quiz

A MODERN PERSPECTIVE ON THE MIND

Week 5, Individuating the aspects of the mind. Terms for studying the universal and relative aspects of the mind will be introduced. Based on the cognitive scientific and anthropological research, the mind reflects both rational/universal and empirical/relative propensities that depend

on the aspect of the mind being studied, e.g., concepts, percepts, cognitive capabilities, thought processes, or other mental phenomena.

- Reading: (Hill 2022; Johns 2018)
- Assignment: Online comprehension quiz

CONCEPTS

Week 6, An introduction to memory and accessing concepts in the past: What the different memory systems are; what concepts are; how concepts can be recovered from the archaeological record (e.g., through a direct historical or associative approach); an epistemological analysis of the recoverability of concepts.

- Reading: (Abramiuk 2012:49–94)
- Assignment: Online comprehension quiz

Week 7, Reconstructing ancient belief systems: How concepts are assembled to form more complex concepts in the form of belief systems; examples of how belief systems can be recovered from the archaeological record.

- Reading: (Hall 1976; Child 2006)
- Assignment: Online comprehension quiz

PERCEPTS

Week 8, Eliciting direct percepts: How direct percepts form; how they serve as cognitive scaffolds; how to recover direct percepts in the past (e.g., through a materiality approach) and the related research supporting it.

- Reading: (Abramiuk 2012:95–112; Overmann 2023:244–276; O’Neil 2011; Tilley 2020:1–32)
- Assignment: Online mid-term exam.

Week 9, Recovering indirect percepts: How indirect percepts form; how to recover indirect percepts in the past (e.g., through a general comparative approach) and the related research supporting it.

- Reading: (Abramiuk 2012:112–123; Currie 2016; La Rocca 2011)
- Assignment: Online comprehension quiz

REASONING

Week 10, Reconstructing analogical reasoning: How we reason by analogy; binary oppositional thinking; how we can reconstruct the conceptual byproducts (e.g., through a structural approach). • Reading: (Abramiuk 2012:125–141; Wylie 1982)

- Assignment: Online comprehension quiz

Week 11, Identifying deductive reasoning in the past and in the present: How we reason deductively; the evidence for deductive reasoning in the past; how we use deductive reasoning today as analysts of past human mind frames and cognitive capabilities (e.g., through a conditional approach).

- Reading: (Abramiuk 2012:141–155; Renfrew 1994b; Wynn 1990)
- Assignment: Online comprehension quiz

Week 12, Recovering ancient knowledge: How knowledge can be reconstructed from remains; examples of indigenous knowledge identified in the archaeological record.

- Reading: (Abramiuk et al 2011; Henneberg and Henneberg 2002; Nappo et al 2022; Paranina 2020)

Assignment: Online comprehension quiz

OTHER TOPICS

Week 13, Motives and Emotions: What emotions are; how emotions impact motives; how motives and emotions can be reconstructed from archaeological remains.

- Reading: (Abramiuk 2023; Nugent 2019; Tarlow 2012)
- Assignment: Online comprehension quiz

Week 14, Beyond reconstructing mind frames - How ideas spread: What the mechanisms are in spread of concepts; examples of how concepts spread in the past; inferring the mechanisms behind the spread of these concepts.

- Reading: (Luncz et al 2015; Mesoudi and Whiten 2008; Shennan 2011)
- Assignment: Online comprehension quiz

CONCLUSION

Week 15, The limitations of inferring past human mind frames: How far back in time can we go in inferring past human mind frames; a brief evolutionary cognitive archaeological journey; the emergence of modern cognitive capabilities.

- Reading: (Abramiuk 2012:215–254; Bednarik 2012; Wynn and Coolidge 2011) •
- Assignment: Online comprehension quiz

Week 16, Final exam.

- Assignment: Online final exam.

READING ASSIGNMENTS

Abramiuk, M.A., 2012. *The Foundations of Cognitive Archaeology*. Cambridge, MA: MIT Press.

Abramiuk, M.A., 2015. Cognitive Archaeology. In J.D. Wright (ed.), *International Encyclopaedia of the Social and Behavioral Science* (2nd edn). Oxford: Elsevier.

Abramiuk, M.A., Dunham, P.S., Cummings, L.S., Yost, C. and Pesek, T.J., 2011. Linking Past and Present: A Preliminary Paleoethnobotanical Study of Maya Nutritional and Medicinal Plant Use and Sustainable Cultivation in the Southern Maya Mountains, Belize. *Ethnobotany Research and Applications* 9:257–273.

Abramiuk, M.A., 2023. Retrospective Analysis within a Counterpoint Framework: A Demonstration in Interpreting the Motives Involved in an Ancient Maya Stela Deposit at Quebrada de Oro, Belize. In T. Wynn, K.A. Overmann, and F.L. Coolidge (eds), *The Oxford Handbook of Cognitive Archaeology*. Oxford: Oxford University Press.

Bednarik, R.G., 2012. The Origins of Human Modernity. *Humanities* 1(1):1–53.

Binford, L., 1973. Interassemblage Variability—The Mousterian and the “Functional” Argument.

In C.A. Renfrew (ed.), *The Explanation of Culture Change: Models in Prehistory* (pp. 227–254). London: Duckworth.

- Bordes, F., 1973. On the Chronology and Contemporaneity of Different Paleolithic Cultures in France. In C.A. Renfrew (ed.), *The Explanation of Culture Change: Models in Prehistory* (pp. 217–226). London: Duckworth.
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- Currie, A., 2016. Ethnographic Analogy, the Comparative Method, and Archaeological Special Pleading. *Studies in History and Philosophy of Science Part A* 55:84–94.
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- Hill, C.S., 2022. Percepts and Concepts. In *Perceptual Experience* (Oxford, 2022; online edn, Oxford Academic, 22 Sept. 2022), <https://doi.org/10.1093/oso/9780192867766.003.0008>.
- Hodder, I.R., 1982a. Theoretical Archaeology: A Reactionary View. In: I.R. Hodder (ed.), *Symbolic and Structural Archaeology* (pp. 1–16). Cambridge: Cambridge University Press.
- Hodder, I.R., 1982b. *Symbols in Action: Ethnoarchaeological Studies in Material Culture*. Cambridge: Cambridge University Press.
- Kenyon, K. 1957. *Digging Up Jericho: The Result of the Jericho Excavations 1952–1956*. New York: Praeger.
- Johns, R. 2018. *Perception Basics*. Langara College. Philosophy 2201-Epistemology Updated January 2018, pp.1–9. https://iweb.langara.ca/rjohns/files/2018/01/Perception_Belief.pdf
- La Rocca, E., Favro, D., Yegül, F.K., Pinto, J. and Métraux, G., 2015. The Perception of Space in Ancient Rome. In *Paradigm and Progeny: Roman Imperial Architecture and its Legacy*. In D. Favro, F.K. Yegul, J. Pinto and G. Metraux (eds), *Paradigm and Progeny: Roman Imperial Architecture and Its Legacy: Proceedings of a Conference held at the American Academy in Rome on 6–7 December 2011. In Honor of William L. MacDonald* (pp. 89–104). Portsmouth, RI: Journal of Roman Archaeology.
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- Nappo, F., Magli, G. and Valente, G., 2022. Evidence and Analogy in Archaeoastronomy. *Synthese* 200(6):439.
- Nugent, R., 2019. Emotion and the Senses in Archaeology. In R. Skeates and J. Day (eds), *The Routledge Handbook of Sensory Archaeology* (pp.109–129). London: Routledge.
- O’Neil, M.E., 2011. Object, Memory, and Materiality at Yaxchilan: The Reset Lintels of Structures 12 and 22. *Ancient Mesoamerica* 22(2):245–269.

- Overmann, K.A., 2023. *The Materiality of Numbers: Emergence and Elaboration from Prehistory to Present*. Cambridge: Cambridge University Press.
- Paranina, A. 2020. Ancient Traditions of Solar Navigation in the Mediterranean Region. In R. Efe and I. Curebal (eds), *Contemporary Studies in Sciences* (pp. 268–282). Newcastle Upon Tyne: Cambridge Scholars Publishing.
- Renfrew, A.C., 1982. *Towards an Archaeology of the Mind: An Inaugural Lecture Delivered before the University of Cambridge*. Cambridge: Cambridge University Press.
- Renfrew, A.C., 1994a. Towards a Cognitive Archaeology. In A.C. Renfrew and E.B.W. Zubrow (eds.), *The Ancient Mind: Elements of Cognitive Archaeology* (pp. 3–12). Cambridge: Cambridge University Press.
- Renfrew, A.C., 1994b. The Archaeology of Religion. In A.C. Renfrew and E.B.W. Zubrow (eds.), *The Ancient Mind: Elements of Cognitive Archaeology* (pp. 47–54). Cambridge: Cambridge University Press.
- Renfrew, A.C., 2001. Symbol before Concept: Material Engagement and the Early Development of Society. In I.R. Hodder (ed.), *Archaeological Theory Today* (pp. 122–140). London: Polity Press.
- Ruz, A. 1953. An Astonishing Discovery. In *The Illustrated London News*, August 29, 1953.
- Shennan S. 2011. Descent with Modification and the Archaeological Record. *Philosophical Transactions of the Royal Society of London B: Biological Sciences* 366(1567):1070–9.
- Tarlow, S., 2012. The Archaeology of Emotion and Affect. *Annual Review of Anthropology* 41:169–185.
- Tilley, C., 2020. *The Materiality of Stone: Explorations in Landscape Phenomenology*. London: Routledge.
- Wheeler, R.E.M., 1943. *Maiden Castle, Dorset*. London: Society of Antiquaries of London.
- Woolley, L., 1929. *Ur of the Chaldees*. London: E. Benn.
- Wylie, A., 1982. Epistemological Issues Raised by a Structuralist Archaeology. In I. Hodder (ed.), *Symbolic and Structural Archaeology* (pp. 39–46). Cambridge: Cambridge University Press.
- Wynn, T., 1990. Archaeological Evidence for Modern Intelligence. In R. Foley (ed.), *The Origins of Human Behaviour* (pp. 52–66). London: Routledge.
- Wynn, T. and Coolidge, F.L., 2011. The Implications of the Working Memory Model for the Evolution of Modern Cognition. *International Journal of Evolutionary Biology* 2011(741357):1–12.

STUDENT EXPECTATIONS

Students should prepare for the weekly lesson by reading the material listed for each session. Grades will be based on quizzes and two exams. All students will have the opportunity to earn an ‘A’ in this course. (+/- grades may be assigned). Final grades will only be changed if a clerical error has been made.

FINAL GRADING					
<i>Breakdown</i>					
Letter	Percent	Performance	Letter	Percent	Performance
A+	100% +	Exceptional	C+	77–79%	Above average
A	93–99%	Excellent	C	73–76%	Average/acceptable
A–	90–92%	Nearly excellent	C–	70–72%	Mostly acceptable
B+	87–89%	Very good	D+	67–69%	Below acceptable
B	83–86%	Good	D	63–68%	Inadequate but passing
B–	80–82%	Mostly good	D–	60–62%	Poor
			F	Below 60%	Failing

Students who choose to withdraw from the course are responsible for completing the necessary withdrawal forms. Students who stop attending without formally withdrawing still appear on the final grade roster and must be assigned a grade. Consult the schedule for additional information and withdrawal dates.

Writing quality: Written responses to exam questions will be graded on thoughtfulness, including attention to the detail of the assigned question and the ability to cite examples from reading assignments.

Academic Conduct: Students should read the University Bulletin and make note of campus policies regarding breaches of the honor system and academic honesty. Misuse of academic materials will not be tolerated. For additional information on academic conduct, see the university website:
<http://www.uccs.edu/Documents/dos/Final%20Approved%20Code%20of%20Conduct%20Fall%202016%20.pdf>.

Deadlines, Due Dates, Etc.: Students should notify the instructor immediately of any extenuating circumstances which do not allow them to meet course deadlines, due dates, or exams. **Disabilities:** Students requesting an accommodation should contact Disability Services. Please advise the instructor of any special needs. Please submit any required forms prior to the exams. For additional information on disability services, see the university website:
<http://www.uccs.edu/disability/facultystaff/faculty-accommodation-letter.html>.

Military Service: Students who are active or reserve military with the potential of being called to service and/or training during the course should coordinate with the instructor during the first week to discuss accommodations. For additional information on military student support, see the university website:
<http://www.uccs.edu/military/current-students/active-duty-and-reservists.html>.

Communication: Dr. Abramiuk's primary method of communicating with students is by email.

Useful University Phone Numbers (719) 255-: Academic Advising 3260; Anthropology Department 3620; Disability Services 3354; LGBTQ Resource Center 3447; Library 3296; Public Safety 3111; University Testing Center 3354; Veteran and Military Student Affairs Office 3253; Veterans Health and Trauma Clinic 8003; Wellness Center Mental Health Services 4444; Writing Center 4336.