University of Colorado, Colorado Springs
Center for Cognitive Archaeology

ANTH 4915/5915: HISTORY OF COGNITIVE ARCHAEOLOGY SINCE 1969

Meet Professor Overmann

Professor: Dr. Karenleigh A. Overmann

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Karenleigh A. Overmann is an associate professor of anthropology (adjunct) at the University of Colorado, Colorado Springs (UCCS) Center for Cognitive Archaeology. She recently completed two years of postdoctoral research at the University of Bergen (MSCA individual fellowship, EU project 785793) and is currently a visiting scholar at the University of Pittsburgh. She earned her doctorate in archaeology at the University of Oxford as a Clarendon scholar. Her research focuses on how societies become numerate and literate by using and modifying material forms over generations of collaborative effort, the effect this elaborational mechanism has on conceptual content, how material forms become increasingly refined to elicit specific behavioral and psychological responses, and what this might augur about the future of human cognition. She has also published on the cognitive significance of stone tools, Neandertal cognition, and the literary works of Jane Austen.

To date, she has authored 29 journal articles, 13 book chapters, and co-edited two special journal issues. In 2019 she published *The material origin of numbers: Insights from the archaeology of the Ancient Near East* (Gorgias Press), as well as an anthology co-edited with Frederick L. Coolidge, *Squeezing minds from stones: Cognitive archaeology and the evolution of the human mind* (Oxford University Press)**.** She also teamed with Thomas Wynn to apply insights from Neolithic technologies like writing to cognitive evolution as understood through stone tools: "Materiality and human cognition" (2019, *Journal of Archaeological Method and Theory***)** and "On tools making minds: An archaeological perspective on human cognitive evolution" (2019, *Journal of Cognition and Culture*).

Description

The course consists of a selected list of primary sources that have been instrumental in establishing cognitive archaeology as a viable and influential approach in the study of human evolution. The readings are biased toward Anglophone archaeology, and toward important issues in human cognitive evolution. The professor readily acknowledges that the course is idiosyncratic, and that important articles have had to be left out. If you run into problems or have questions, please email the professor.

Reading Material

This is a readings course. Very little information is presented outside of the primary sources themselves. All the reading material for the course is provided online.

Evaluation

Each of the numbered assignments has two components. The first is to write a brief annotated bibliographic entry for each of the readings. These you will keep and accumulate until the end of the course, when you will submit the complete bibliography. The second assignment is an essay of 500–1000 words in response to the prompts provided in each lesson. These will need to be submitted at the end of each lesson. The course is designed for you to complete one essay a week for fifteen weeks, and submission dates in Canvas will be set accordingly. You will be able to submit essays before the due date, but not after (unless there are extenuating circumstances, such as a Canvas failure).

In addition, graduate students will complete a 10–15-page essay (double spaced, 12-point font, 1-inch margins) in which you identify and critique one of the major themes you have encountered in the readings. Emphasis should be placed on how this theme has changed in cognitive archaeology over the last 40 years. For example, one might choose symbolic behavior or the modern mind or the role of developmental psychology. The topic should be chosen early in the semester and coordinated with the professor.

The graduate essay is due by the date noted in the syllabus and is worth 100 points.

Grading Rubric

Written assignments will be graded on how well they answer the assigned question, attention to detail, and use of examples from the reading. Answers must be typewritten and double spaced. Points will be awarded as follows: 30% Clarity (answers the assigned question in clear, concise, understandable writing); 30% Organization (thesis statement, topic sentences, development following the thesis, a conclusion that does not introduce new ideas), and 40% Support (includes examples from the reading that are relevant to the assigned question). Students wanting assistance with writing should consult the University Writing Center (Columbine Hall 316; see http://www.uccs.edu/~wrtgcntr/ for contact and scheduling information).

Academic Calendar

Please refer to the Academic Calendar for important logistical information such as the last day you may add a class during the semester, the census date, the final day you may drop a class and still receive a refund, fee deadlines, holidays, etc.

Course Evaluation

The UCCS Anthropology Department is committed to providing the best possible learning experience to every student. A key mechanism to provide ongoing excellence in teaching and learning is to gather your thoughts on each course and the effectiveness of our faculty. Students are expected to provide feedback on the quality of instruction in this course by completing an online evaluation, typically during the last two weeks of the semester. These faculty evaluations are called Faculty Course Questionnaires (FCQs). These are forwarded to the course professors after final grades are submitted and contain no identifying information in regard to individual students (i.e., they are anonymous). Additional instructions will be provided via a notification sent to student UCCS email accounts later in the semester. Please know that student feedback is

extremely valuable to your professor, the Anthropology Department, and UCCS as a whole. In particular, constructive comments guide the enhancement of future versions of this course.

Excel Centers

If you feel your performance in this class would benefit from additional tutelage, UCCS offers a network of five online (and on-campus) centers, each offering a unique program of academic support to help all UCCS students succeed in every aspect of their academic careers.

Disability Statement

A student with a disability who will need accommodations for this course must contact and register with the Disability Services Office, and provide them with documentation of the disability, so that appropriate accommodations for the student's situation can be determined. To avoid any delay in the receipt of accommodations, the student should contact the Disability Services Offices as soon as possible. Please note that accommodations are not retroactive and that disability accommodations cannot be provided until an accommodation letter has been given to the faculty member. The student may contact Disability Services at Main Hall, room 105, 719-255-3354 or dservice@uccs.edu for more information about receiving accommodations.

Your Professor's Expectations of You

During completion of this course, you must abide by the UCCS Student Conduct. This code specifies what is considered proper and improper student conduct, including matters such as cheating and inappropriate behavior. Students who do not abide by the code can receive sanctions ranging up to expulsion from the university.

Remember that this is a 3-credit-hour course at either the senior (4000) or graduate (5000) level. Please plan on spending a lot of time working on this class. This time will include reviewing the material and completing assignments. I suggest that you plan to spend at least 10 hours per week on average (or 20 hours per week for the accelerated summer version).

Of course, the amount of time spent does not guarantee you any particular grade. Your letter grade will reflect the amount of material that you learned, as reflected in your assignment scores and the overall quality of your contributions to the course.

We will be respectful of you as students. We will not demean you, insult you, or embarrass you. We expect that you will be respectful and civil in your communications with your professor.

Solving Technical Difficulties

When you're having technical difficulties (pages not loading, connectivity problems, not able to view images, things not working as they should, etc.), please contact the 24/7 Canvas Telephone Support at 844.802.9230 or online at the Canvas Support Community page. Please note this service is separate from the UCCS IT Helpdesk.

Help Understanding Course Material

When you have questions regarding course policies, grading criteria, quiz administration, etc., please ask your professor via email.

Course Summary

Week	Reading
1	**Undergraduate Students:** Holloway, R. L. (1969). Culture: A human domain. *Current Anthropology*, *10*(4), 395–412. Isaac, G. L. (1976). Stages of cultural elaboration in the Pleistocene: Possible archaeological indicators of the development of language capabilities. *Annals of the New York Academy of Sciences*, *280*(1), 275–288. Wynn, T. (2017). Evolutionary cognitive archaeology. In T. Wynn & F. L. Coolidge (Eds), *Cognitive models in Palaeolithic archaeology* (pp. 1–20). Oxford University Press. **Graduate Students: ADD** Leach, E. R. (1973). Concluding address. In C. Renfrew (Ed.), *The explanation of culture change: Models in prehistory. Proceedings of a meeting of the Research Seminar in Archaeology and Related Subjects held at the University of Sheffield, December 14–16, 1971* (pp. 761–771). Gerald Duckworth.
2	**Undergraduate Students:** Gowlett, J. A. J. (1979). Complexities of cultural evidence in the Lower and Middle Pleistocene. *Nature*, *278*(5699), 14–17. Parker, S. T., & Gibson, K. R. (1979). A developmental model for the evolution of language and intelligence in early hominids. *Behavioral and Brain Sciences*, *2*, 367–408. Wynn, T. (1979). The intelligence of later Acheulean hominids. *Man*, *14*, 371–391. **Graduate Students: ADD** Wynn, T. (1981). The intelligence of Oldowan hominids. *Journal of Human Evolution*, *10*(7), 529–541.
3	**Undergraduate Students:** Gowlett, J. A. J. (1984). Mental abilities of early man: A look at some hard evidence. In R. Foley (Ed.), *Hominid evolution and community ecology: Prehistoric human adaptation in biological perspective* (pp. 167–192). Academic Press. Wynn, T. (1989). *The evolution of spatial competence*. University of Illinois Press. **Graduate Students: ADD** Wynn, T. (1985). Piaget, stone tools and the evolution of human intelligence. *World Archaeology*, *17*(1), 32–43.
4	**Undergraduate Students:** Davidson, I., & Noble, W. (1989). The archaeology of perception: Traces of depiction and language. *Current Anthropology*, *30*(2), 125–155. Putt, S. S. (2019). The stories stones tell of language and its evolution. In K. A. Overmann & F. L. Coolidge (Eds.), *Squeezing minds from stones: Cognitive archaeology and the evolution of the human mind* (pp. 304–318). Oxford University Press. **Graduate Students: ADD** Mithen, S. J. (1996). *The prehistory of mind: The cognitive origins of art, religion and science*. Thames & Hudson. (Chapters 6 and 7).
5	**Undergraduate Students:** Botha, R. (2016). *Language evolution: The Windows Approach*. Cambridge University Press. (Chapters 1–3)

Week	Reading
	Henshilwood, C. S., d'Errico, F., Vanhaeren, M., Van Niekerk, K. L., & Jacobs, Z. (2004). Middle Stone Age shell beads from South Africa. *Science*, *304*(5669), 404. **Graduate Students: ADD** Wynn, T. (2009). Hafted spears and the archaeology of mind. *Proceedings of the National Academy of Sciences of the USA*, *106*(24), 9544–9545.
6	**Undergraduate Students:** Renfrew, C. (1982). *Towards an archaeology of mind: An inaugural lecture delivered before the University of Cambridge on 30th November 1982*. Cambridge University Press. Renfrew, C. (1994). Towards a cognitive archaeology. In C. Renfrew & E. B. W. Zubrow (Eds.), *The ancient mind: Elements of a cognitive archaeology* (pp. 3–12). Cambridge University Press. **Graduate Students: ADD** Renfrew, C. (1998). Mind and matter: Cognitive archaeology and external symbolic storage. In C. Renfrew & C. Scarre (Eds.), *Cognition and material culture: The archaeology of symbolic storage* (pp. 1–6). McDonald Institute.
7	**Undergraduate Students:** Delagnes, A., & Roche, H. (2005). Late Pliocene hominid knapping skills: The case of Lokalalei 2C, West Turkana, Kenya. *Journal of Human Evolution*, *48*(5), 435–472. Haidle, M. N. (2009). How to think a simple spear. In S. A. de Beaune, F. L. Coolidge, & T. Wynn (Eds.), *Cognitive archaeology and human evolution* (pp. 57–74). Cambridge University Press. **Graduate Students: ADD** Schlanger, N. (1994). Mindful technology: Unleashing the *chaîne opératoire* for an archaeology of mind. In *The ancient mind* (pp. 143–151).
8	**Undergraduate Students:** Stout, D. (2002). Skill and cognition in stone tool production: An ethnographic case study from Irian Jaya 1. *Current Anthropology*, *43*(5), 693–722. Toth, N. P., Schick, K. D., Savage-Rumbaugh, E. S., Sevcik, R. A., & Rumbaugh, D. M. (1993). Pan the tool-maker: Investigations into the stone tool-making and tool-using capabilities of a bonobo (*Pan paniscus*). *Journal of Archaeological Science*, *20*(1), 81–91. **Graduate Students: ADD** McGrew, W. C., Falótico, T., Gumert, M. D., & Ottoni, E. B. (2019). A simian view of the Oldowan: Reconstructing the evolutionary origins of human technology. In *Squeezing minds from stones* (pp. 13–41).
9	**Undergraduate Students:** Malafouris, L. (2008). Beads for a plastic mind: The "blind man's stick" (BMS) hypothesis and the active nature of material culture. *Cambridge Archaeological Journal*, *18*(3), 401–414. Wynn, T. (2002). Archaeology and cognitive evolution. *Behavioral and Brain Sciences*, *25*(3), 389–402. **Graduate Students: ADD**

Week	Reading
	Malafouris, L. (2010). Knapping intentions and the marks of the mental. In L. Malafouris & C. Renfrew (Eds.), *The cognitive life of things: Recasting the boundaries of the mind* (pp. 13–27). McDonald Institute.
10	**Undergraduate Students:** Coolidge, F. L., & Wynn, T. (2005). Working memory, its executive functions, and the emergence of modern thinking. *Cambridge Archaeological Journal*, *15*(1), 5–26. Stout, D., Toth, N. P., Schick, K. D., Stout, J., & Hutchins, G. (2000). Stone tool-making and brain activation: Positron Emission Tomography (PET) studies. *Journal of Archaeological Science*, *27*(12), 1215–1223. Wadley, L., Hodgskiss, T., & Grant, M. (2009). Implications for complex cognition from the hafting of tools with compound adhesives in the Middle Stone Age, South Africa. *Proceedings of the National Academy of Sciences of the USA*, *106*(24), 9590–9594. **Graduate Students: ADD** Cole, J. (2019). Knapping in the dark: Stone tools and a theory of mind. In *Squeezing minds from stones* (pp. 355–375).
11	**Undergraduate Students:** Gärdenfors, P., & Högberg, A. (2017). The archaeology of teaching and the evolution of *Homo docens*. *Current Anthropology*, *58*(2), 188–208. Shipton, C. (2010). Imitation and shared intentionality in the Acheulean. *Cambridge Archaeological Journal*, *20*(2), 197–210. **Graduate Students: ADD** Lycett, S. J. (2019). Cultural transmission from the Last Common Ancestor to the Levallois reducers: What can we infer? In *Squeezing minds from stones* (pp. 251–277).
12	**Undergraduate Students:** Gowlett, J. A. J. (2006). The elements of design form in Acheulian bifaces: Modes, modalities, rules and language. In N. Goren-Inbar & G. Sharon (Eds.), *Axe age: Acheulian tool-making from quarry to discard* (pp. 203–222). London: Equinox. Moore, M. W. (2019). Flake-making and the "Cognitive Rubicon": Insights from stone-knapping experiments. In *Squeezing minds from stone* (pp. 179–199). Wynn, T., Overmann, K. A., & Malafouris, L. (2020). 4E cognition in the Lower Palaeolithic: An introduction. *Adaptive Behavior*. https://doi.org/10.1177/1059712320967184 **Graduate Students: ADD** Wynn, T., & Berlant, T. (2019). The handaxe aesthetic. In *Squeezing minds from stones* (pp. 278–303).
13	**Undergraduate Students:** Gärdenfors, P., & Lombard, M. (2018). Causal cognition, force dynamics and early hunting technologies. *Frontiers in Psychology*, *9*, 1–10. Osiurak, F., Lesourd, M., Navarro, J., & Reynaud, E. (2020). Technition: When tools come out of the closet. *Perspectives on Psychological Science*, 1–18. https://doi.org/10.1177/1745691620902145 **Graduate Students: ADD**

Week	Reading
	Wynn, T., & Coolidge, F. L. (2010). How Levallois reduction is similar to, and not similar to, playing chess. In A. Nowell & I. Davidson (Eds.), *Stone tools and the evolution of human cognition* (pp. 83–104). Boulder, CO: University of Colorado Press.
14	**Undergraduate Students:** Hodgson, D. (2019). Stone tools and spatial cognition. In *Squeezing minds from stones* (pp. 200–224). Overmann, K. A. (2017). Thinking materially: Cognition as extended and enacted. *Journal of Cognition and Culture*, *17*(3–4), 381–400. **Graduate Students: ADD** Overmann, K. A., & Wynn, T. (2019). Materiality and human cognition. *Journal of Archaeological Method and Theory*, *26*(2), 457–478.
15	**Undergraduate Students:** Currie, A., & Killin, A. (2019). From things to thinking: Cognitive archaeology. *Mind & Language*, *34*(2), 263–279. Pain, R. (2019). What can the lithic record tell us about the evolution of hominin cognition? *Topoi*, 1–15. https://doi.org/10.1007/s11245-019-09683-0 Roberts, P. (2016). "We have never been behaviourally modern': The implications of Material Engagement Theory and metaplasticity for understanding the Late Pleistocene record of human behaviour. *Quaternary International*, *405*, 8–20. Annotated bibliography is due. **Graduate Students: ADD** Garofoli, D., & Haidle, M. N. (2014). Epistemological problems in cognitive archaeology: An anti-relativistic proposal towards methodological uniformity. *Journal of Anthropological Sciences*, *92*, 7–41. Research essay is due.