ANTH 5323 Topics in Anthropology: Archaeology of Food

2024/25 Term 2

Lecture time: Thursday 13:30 – 15:15 (9/1– 17/4) UCC_C3

Tutorial time: Thursday 15:30 – 16:15 (9/1 – 17/4) UCC_105

Instructor: Chris Cheung (christina.cheung@cuhk.edu.hk)

Course description: Ponder this: every atom in your body was once part of a meal. This means that your food choices literally constitute your physical being. Why study past diets? The study of past human diet and nutrition is a key area of research in archaeology and anthropology and holds significant potential for developing a better understanding of human nutrition today. Our eating habits, biologically and culturally, are often rooted in ancient traditions of past millennia but may also reflect recent changes to society and the environment. Through lectures, discussion groups, and practical lab experience, this course will provide students with advanced knowledge of the main theoretical and methodological approaches to studying nutrition in the ancient past. Major focuses will include stable isotope analyses, zooarchaeology, and paleoethnobotany.

Learning outcomes:

By the end of this course, students will:

- Demonstrate a firm understanding of basic isotopic, zooarchaeological, and paleoethnobotanical techniques and how they can be used to analyse and interpret archaeological data.
- Critique isotopic, faunal, and botanical data presented in archaeological literature

Course structure and learning activities:

One 1 hour 45 min lecture and one 45-min tutorial per week for one semester. Tutorial will take various forms, including hands-on lab sessions and round-table discussions.

Course assessment and polices:

The final grade for the course is based on:

1) Participation in tutorials 20%
2) Mid-term paper on method 30%
3) Final project and paper 50%

Participation in tutorials (20%)

Students are expected to participate in tutorial activities and contribute to class discussion.

Mid-term paper (30%)

Students are expected to choose a topic from Methodology (weeks 2 – 6) and write a short paper (8 – 10 pages) using the assigned readings. More direction will be provided in class.

Final project and paper (50%)

More direction will be provided in class.

Submission and academic honesty

As required by the university, from Sept. 2008, students must submit a soft copy of their computer-generated text assignments to VeriGuide at a specified URL. The system will issue a receipt containing a declaration of honesty statement. Students should sign the receipt, print a hard copy of their assignment, and submit the hard copy and the receipt to teachers for grading. The university says that assignments without the receipt will not be graded.

Please check the website "Honesty in Academic Works" at: http://www.cuhk.edu.hk/policy/academichonesty/

for more information on plagiarism and on how to submit papers through VeriGuide.

Grade descriptors

Grade	Overall course
A	Outstanding performance on all learning outcomes. Motivated and engaging in outside readings, able to draw meaningful connections between lecture materials and all readings.
B	Substantial performance on all learning outcomes, OR high performance on some learning outcomes which compensates for less satisfactory performance on others, resulting in overall substantial performance. Able to draw meaningful connections between lecture materials and required readings.
C	Satisfactory performance on the majority of learning outcomes, possibly with a few weaknesses. Comprehends some connections between lecture materials and required readings.
D	Barely satisfactory performance on a number of learning outcomes. Mostly fails to comprehend the connections between lecture material and required readings.
F	Unsatisfactory performance on a number of learning outcomes, OR failure to meet specified assessment requirements.

Weekly schedule (the reading list is not finalised and the syllabus is subject to change)

Week	Lecture topics and weekly readings
1	**Introduction: why study past diets?** • Twiss, K. (2019). What Is Food, and Why Do Archaeologists Study It? *In:* The Archaeology of Food: Identity, Politics, and Ideology in the Prehistoric and Historic Past (pp. 1-17). Cambridge: Cambridge University Press. doi:10.1017/9781108670159.001
2	**Methodology part 1: What's left behind** <u>*Archaeobotany:*</u> • Palmer, C. & Van der Veen, M. (2002). Archaeobotany and the social context of food. Acta Palaeobotanica-Krakow, 42(2), 195-202. • Pearsall, D. M. (1989). Chapter 1 - The Paleoethnobotanical Approach. *In*: D. M. Pearsall (Ed.), Paleoethnobotany (pp. 1-13). San Diego: Academic Press. <u>*Zooarchaeology:*</u> • Reitz, E. & Wing, E. (2008). Zooarchaeology. *In:* Zooarchaeology (Cambridge Manuals in Archaeology, pp. 1-10). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511841354.002
3	**Methodologies part 2: Food processing methods/tools** • Ebeling, J. R. & Rowan, Y. M. (2004). The archaeology of the daily grind: Ground stone tools and food production in the southern Levant. Near Eastern Archaeology, 67(2), 108-117. • Morrison, K. D. (2012). Great transformations: On the archaeology of cooking. The Menial Art of Cooking: Archaeological Studies of Cooking and Food Preparation, 231-244.
4	**Methodologies part 3: Embodied food** <u>*Stable isotope analysis:*</u> • Katzenberg, M. A. & Waters-Rist, A. L. (2018). Stable isotope analysis: a tool for studying past diet, demography, and life history. Biological anthropology of the human skeleton, 467-504. <u>*Palaeopathology*</u> • Meyer, A. (2016). Assessment of diet and recognition of nutritional deficiencies in paleopathological studies: A review. Clinical Anatomy, 29(7), 862-869.
5	**Methodologies part 4: Others** • Forshaw, R. (2022). Dental calculus-oral health, forensic studies and archaeology: a review. British Dental Journal, 233(11), 961-967. • Roffet-Salque, M., Dunne, J., Altoft, D. T., Casanova, E., Cramp, L. J., Smyth, J., ... & Evershed, R. P. (2017). From the inside out: Upscaling organic residue analyses of archaeological ceramics. Journal of Archaeological Science: Reports, 16, 627-640.

6	**Methodology part 5: Preserved food from the ancient times** *Pick one:* • Lü, Houyuan, et al. "Component and simulation of the 4,000-year-old noodles excavated from the archaeological site of Lajia in Qinghai, China." Chinese science bulletin 59 (2014): 5136-5152. • Greco, E., El-Aguizy, O., Ali, M. F., Foti, S., Cunsolo, V., Saletti, R., & Ciliberto, E. (2018). Proteomic analyses on an ancient Egyptian cheese and biomolecular evidence of brucellosis. Analytical chemistry, 90(16), 9673-9676. • McGovern, P. E., Zhang, J., Tang, J., Zhang, Z., Hall, G. R., Moreau, R. A., ... & Wang, C. (2004). Fermented beverages of pre-and proto-historic China. Proceedings of the National Academy of Sciences, 101(51), 17593-17598. • Cronin, T., Downey, L., Synnott, C., McSweeney, P., Kelly, E. P., Cahill, M., ... & Stanton, C. (2007). Composition of ancient Irish bog butter. International dairy journal, 17(9), 1011-1020. • Arranz-Otaegui, A., Gonzalez Carretero, L., Ramsey, M. N., Fuller, D. Q., & Richter, T. (2018). Archaeobotanical evidence reveals the origins of bread 14,400 years ago in northeastern Jordan. Proceedings of the National Academy of Sciences, 115(31), 7925-7930.
7	**What can ancient foodways tell us? Part 1: Identities and social differentiation** • Pitts, M. (2015). The Archaeology of Food Consumption. *In:* J. Wilkins & R. Nadeau (Ed.), A Companion to Food in the Ancient World (pp. 95 - 104). Chichester: John Wiley & Sons, Ltd. • Meadows, K. I. (1995). You Are What You Eat: Diet, Identity and Romanisation. TRAC 94: Proceedings of the Fourth Annual Theoretical Roman Archaeology Conference, Durham 1994 (pp. 133-140). Oxford: Oxbow Books.
8	**What can ancient foodways tell us? Part 2: Inequality and political economy** • Bogaard, A. (2017). The Archaeology of Food Surplus. World Archaeology, 49(1), 1-7. • Dietler, M. (1996). Feasts and Commensal Politics in the Political Economy: Food, Power, and Status in Prehistoric Europe. *In:* P. Wiessner & W. Schiefenhövel (Ed.), Food and the Status Quest: An Interdisciplinary Perspective (pp. 87-125). Providence: Berghahn Books.
9	**What can ancient foodways tell us? Part 3: Trading and networks** • Scott, A., Power, R. C., Altmann-Wendling, V., Artzy, M., Martin, M. A., Eisenmann, S., ... & Warinner, C. (2021). Exotic foods reveal contact between South Asia and the Near East during the second millennium BCE. Proceedings of the National Academy of Sciences, 118(2), e2014956117. • Spengler, R. N. III. (2019). Introduction. *In*: Fruits from the Sands: The Silk Road Origins of the Foods We Eat (pp. 3-11). California: University of California Press. • Keehnen, F. W., & Mol, A. A. (2021). The roots of the Columbian Exchange: an entanglement and network approach to early Caribbean encounter transactions. The Journal of Island and Coastal Archaeology, 16(2-4), 261-289.

10	**What can ancient foodways tell us? Part 4: Health/Technology** • Hunt-Watts, H. J., Cade, J. E., & Hadley, D. M. (2015). Food and nutrient intake in low-income families: the archaeology of nutrition. Proceedings of the Nutrition Society, 74(OCE5), E358. • Wollstonecroft, M. M. (2011). Investigating the role of food processing in human evolution: a niche construction approach. Archaeological and Anthropological Sciences, 3, 141-150.
11	**What can ancient foodways tell us? Part 5: Crisis Management** • Cheung, C., Zhang, H., Hepburn, J. C., Yang, D. Y., & Richards, M. P. (2019). Stable isotope and dental caries data reveal abrupt changes in subsistence economy in ancient China in response to global climate change. PloS one, 14(7), e0218943.
12	**Ancient dishes of the world** • Di Giovine, M. & Brulotte R. L. (2014). Introudction Food and Foodways as Cultural Heritage. *In:* Edible Identities: Food as Cultural Heritage (pp. 1-27) London and New York: Routledge.

Optional readings:

Cheung, C., Schwarcz, H., & Chisholm, B. (2022). Examining prehistoric diet at Tung Wan Tsai, Ma Wan Island, Hong Kong through stable isotope analysis. The Journal of Island and Coastal Archaeology, 1-15.

Dietler, M. (2007). 11. Culinary encounters: Food, identity, and colonialism. The archaeology of food and identity (Occasional Paper No. 34).

Hendy, J., Warinner, C., Bouwman, A., Collins, M. J., Fiddyment, S., Fischer, R., ... & Speller, C. F. (2018). Proteomic evidence of dietary sources in ancient dental calculus. Proceedings of the Royal Society B: Biological Sciences, 285(1883), 20180977.

Huss-Ashmore, R., Goodman, A. H., & Armelagos, G. J. (1982). Nutritional inference from paleopathology. Advances in archaeological method and theory, 395-474.

Landon, D.B. (2005) Zooarchaeology and Historical Archaeology: Progress and Prospects. J Archaeol Method Theory 12, 1–36 doi:10.1007/s10816-005-2395-7

Smith, M. L. (2006). The archaeology of food preference. American Anthropologist, 108(3), 480-493.

Zhu, Z., Yu, C., Miao, Y., Lu, Z., & Yang, J. (2018). Mass spectrometry identification of the liquor contained in the plum vase excavated from Jurou Li's Grave of the Jin Dynasty (1115–1234 CE) in Xi'an, Shannxi, China. Heritage Science, 6, 1-6.