UCL - INSTITUTE OF ARCHAEOLOGY

ARCL0122: THE ARCHAEOLOGY OF HUMAN EVOLUTION IN AFRICA

2018-2019

15 credits

Turnitin Class ID: 3885487
Turnitin Password: IoA1819

Deadlines for coursework for this module: 12th December 2018
Target dates for return of marked coursework to students: 12th January 2019

Co-ordinator: PROF IGNACIO DE LA TORRE
(Room 204b - email: i.torre@ucl.ac.uk - tel: 020-7679-4721)

Pleistocene outcrops in West Turkana (Kenya)

Please see the last page of this document for important information about submission and marking procedures, or links to the relevant webpages.

1- OVERVIEW

Short description

This module studies the emergence and behaviour of early humans in Africa. It begins with a presentation of the paleoecological and geographical background to human evolution, and the history of research in the continent. A summary of the evolutionary patterns in our lineage will be followed by a review of the emergence of human technology, and then by a discussion on when and how the first archaeological sites appeared in the African continent. The last couple of lectures review behavioural adaptions of *Homo erectus*, the origins of modern humans in Africa, and the cultural features of the Middle Stone Age.

Week-by-week summary

3 October

Session 1. Introduction to the study of human evolution in Africa and organization of the module. Geographical, ecological and geological context of human evolution in Africa

10 October

Session 2. History of palaeoanthropological investigations in Africa

17 October

Session 3. Evolutionary history of Primates. Hominins before the appearance of the genus *Homo*

24 October

Session 4. Emergence of technology (Lecturer: T. Proffitt)

31 October

Session 5. The earliest archaeological sites in Africa

*** 7 November: Reading week, no teaching***

14 November

Session 6. Oldowan technology practical

21 November

Session 7. *Seminar*: *The archaeology of the African early Pleistocene*

28 November

Session 8. *Seminar: The African Acheulean*

5 December

Session 9. *Seminar*: *The emergence of anatomically modern humans in Africa*

12 December

Session 10. Acheulean and Middle Stone Age technology practical

**** 12 December: Deadline for submitting the essay and handout ****

All sessions taught by I. de la Torre except 24th October, by Dr Tomos Proffitt

FIVE TOP READINGS FOR THE ENTIRE MODULE

Isaac, G. L. 1989. *The archaeology of human origins*. Cambridge University Press, Cambridge. (INST ARCH BB 1 ISA & ISSUE DESK IOA ISA)

Lewin, R. 1987. *Bones of Contention*. University of Chicago Press, Chicago. (INST ARCH BB 1 LEW, there are at least 7 copies in the IoA Library)

McBrearty, S. & Brooks, A. S. 2000. The revolution that wasn´t: a new interpretation of the origin of modern human behavior. *Journal of Human Evolution*, 39: 453-563. Available electronically via UCL computers.

Plummer, T. 2004. Flaked Stones and Old Bones: Biological and Cultural Evolution at the Dawn of Technology. *Yearbook of Physical Anthropology*, 47: 118-164. (Available online)

Wood, B., 2010. Reconstructing human evolution: Achievements, challenges, and opportunities. *PNAS* 107, 8902-8909.

GENERAL TEXTS

Boyd, R. & Silk, J. B. 2003. *How Humans Evolved*. Norton, 3rd Edition. New York. (Science short loan collection BOY)

Gallay, A. (ed.) 1999. *Comment l´homme? A la découverte des premiers Hominidés d´Afrique de l´Est*. Editions Errance, Paris. (INST ARCH DCD Qto GAY)

Harris, J. W. K., Braun, D. R. & Pante, M. (2007). 2.7 MYR-300,000 years ago in Africa. In (D. Pearsall, Ed.) *Encyclopedia of Archaeology*. New York: Academic Press, 63-72. Available online

Klein, R. G. 2009. *The Human Career: Human Biological and Cultural Origins. 3rd edition*. Chicago University Press, Chicago. (INST ARCH BB 1 KLE)

Klein, R. 2000. Archeology and the Evolution of Human Behavior. *Evolutionary Anthropology* 9, 17-36. Available online

Lewin R & Foley, R. 2004. *Principles of Human Evolution*. Oxford, Blackwell INST ARCH LEW (ISSUE DESK)

Potts, R. 1996. *Humanity´s descent. The consequences of ecological instability*. New York. ANTHROPOLOGY B 30 POT

Roche, H., Blumenschine, R. J. & Shea, J. J. (2009). Origins and Adaptations of Early *Homo*: What Archeology Tells Us. In (F. E. Grine, J. G. Fleagle & R. E. Leakey, Eds.) *The First Humans: Origins and Early Evolution of the Genus Homo*. Dordrecht: Springer, 135-147. Available online

Schick, K. D. and N. Toth 1993. *Making Silent Stones Speak. Human Evolution and the Dawn of technology*. London, Weindenfeld and Nicolson. IoA BC 120 SCH

Methods of Assessment

The module will be assessed by a seminar presentation, of which a handout must be submitted (20% of the module mark), and one 3,500-word essay which counts for 80% of the module mark. The topics and deadlines for each assessment are specified below.

Teaching methods

This module will involve five lectures (10 hours), two practical classes (4 hours) and three seminars (6 hours). The structure of seminars is as follows: a short presentation of the case study will be introduced by the module coordinator. Then, a student or a team of students will support a particular hypothesis, with their arguments grounded on the bibliography provided. After, another group of students will support an alternative hypothesis, again through some suggested articles. It is expected that the exposition of rival explanations on the interpretation of case studies will create a discussion environment in which all students participate.

Composition of the discussion groups will depend on the size of the class, but all sessions are compulsory for all students. Seminars have recommended articles, which all students (and not only those involved in the discussion groups) are expected to have read, in order to contribute actively to the discussion. Discussion groups and the selection of seminar topics will be arranged in the first session of the module.

Workload

There will be 10 hours of lectures, 4 hours of practicals and 6 hours of seminar sessions for this module. Students are expected to undertake around 6 hours per week of reading, plus 76 hours preparing for and producing the assessed work. This adds up to a total workload of some 150 hours for the module

Prerequisites

This module does not have prerequisites.

2- AIMS, OBJECTIVES AND ASSESSMENT

Aims & objectives

The focus of this module is the study of the behavioural characteristics of early humans in Africa. First, a description of the sedimentary and chrono- stratigraphic record of the Rift Valley will be presented, in order to understand why the early archaeological sites are found in Africa.

After this introduction to the geological background, we will discuss the paleontological and archaeological record in detail. First lectures focus on the history of research in Africa, and when and how first archaeological sites appeared. The cognitive status of early technologies will be discussed in depth, then investigating the development of the Oldowan during the Early Pleistocene. This Early Pleistocene record and the behavioural models proposed for explaining the configuration of Oldowan sites will be main topics of the module.

The beginnings of the Acheulean and the disappearance of the Oldowan technology will also be considered from an evolutionary perspective, trying to understand the ecological and behavioural implications of this transition. Last lectures will discuss the origins of modern humans in Africa, the cognitive implications of this new genus of *Homo*, and the cultural characteristics of the Middle Stone Age.

Learning outcomes

On successful completion of the module, students should demonstrate a comprehensive knowledge on the Archaeology of Human Evolution in Africa. Students will be able to read critically scientific publications, identify the key elements of the African Stone Age material culture, and include it in the evolutionary framework required for the interpretation of the behaviour of archaic humans. In addition, the development of seminars will support the acquisition of oral presentation skills and debate abilities.

Coursework

Assessment

20% of the module will be assessed by a seminar presentation. To make it easier for the other examiners (secondary and external), students should print out the powerpoints with just two images per page (so that any text on the images can be easily read), and write a few lines or notes on each image in a separate word-file. That gives a bit more space for notes if needed (up to **500 words**). You need to print a handout of the slides with notes and give that to the module coordinator for assessment. A pdf of the handout and notes should be submitted to Turnitin.

80% of the module will be assessed by **one essay** of roughly **3,500 words** length (excluding bibliography). **The subject area should be one of the seminars**. However, in the case of the essay the student **must** talk about the **two** (or more) points of view suggested in each seminar, not only one of them, i.e. should describe all the alternative explanations for each topic, using as many as possible of the references suggested in the seminar bibliography list and the complementary readings. The student can choose for the essay the same topic as for the seminar, or (preferably) a different one.

If students are unclear about the nature of an assignment, they should discuss this with the Module Coordinator. Students are not permitted to re-write and re-submit essays in order to try to improve their marks. However, students may be permitted, in advance of the deadline for a given assignment, to submit for comment a brief outline of the assignment. The Module Co-ordinator is willing to discuss an outline of the student's approach to the assignment, provided this is planned suitably in advance of the submission date.

Word counts

The following should not be included in the word-count: title page, contents pages, lists of figures and tables, abstract, preface, acknowledgements, bibliography, lists of references, captions and contents of tables and figures, appendices.

	Word limit	Range
Handout	500	450-550
Essay	3,500	3,325-3,675

Penalties will only be imposed if you exceed the upper figure in the range. There is no penalty for using fewer words than the lower figure in the range: the lower figure is simply for your guidance to indicate the sort of length that is expected.

In the 2018-19 session penalties for overlength work will be as follows:

- For work that exceeds the specified maximum length by less than 10% the mark will be reduced by five percentage marks, but the penalised mark will not be reduced below the pass mark, assuming the work merited a Pass.
- For work that exceeds the specified maximum length by 10% or more the mark will be reduced by ten percentage marks, but the penalised mark will not be reduced below the pass mark, assuming the work merited a Pass.

Coursework submission procedures

- All coursework must normally be submitted both as **hard copy and electronically**. (The only exceptions are bulky portfolios and lab books which are normally submitted as hard copy only.)
- You should staple the appropriate colour-coded IoA coversheet (available in the IoA library and outside room 411a) to the front of each piece of work and submit it to the red box at the Reception Desk (or room 411a in the case of Year 1 undergraduate work)

- All coursework should be uploaded to Turnitin by midnight on the day of the deadline. This will date-stamp your work. It is essential to upload **all parts** of your work as this is sometimes the version that will be marked.
- Instructions are given below.

Note that Turnitin uses the term 'class' for what we normally call a 'module'.

1. Ensure that your essay or other item of coursework has been saved as a Word doc., docx. or PDF document, and that you have the Class ID for the module (available from the module handbook) and enrolment password (this is **IoA1819** for all modules this session - note that this is capital letter I, lower case letter o, upper case A, followed by the current academic year)
2. Click on **http://www.turnitinuk.com/en_gb/login**
3. Click on 'Create account'
4. Select your category as 'Student'
5. Create an account using your UCL email address. Note that you will be asked to specify a new password for your account - do not use your UCL password or the enrolment password, but invent one of your own (Turnitin will permanently associate this with your account, so you will not have to change it every 6 months, unlike your UCL password). In addition, you will be asked for a "Class ID" and a "Class enrolment password" (see point 1 above).
6. Once you have created an account you can just log in at http://www.turnitinuk.com/en_gb/login and enrol for your other classes without going through the new user process again. Simply click on 'Enrol in a class'. Make sure you have all the relevant "class IDs" at hand.
7. Click on the module to which you wish to submit your work.
8. Click on the correct assignment (e.g. Essay 1).
9. Double-check that you are in the correct module and assignment and then click 'Submit'
10. Attach document as a "Single file upload"
11. Enter your name (the examiner will not be able to see this)
12. Fill in the "Submission title" field with the right details: **It is essential that the first word in the title is your examination candidate number** (e.g. YGBR8 In what sense can culture be said to evolve?),
13. Click "Upload". When the upload is finished, you will be able to see a text-only version of your submission.
14. Click on "Submit"

.

If you have problems, please email the IoA Turnitin Advisers on ioa-turnitin@ucl.ac.uk, explaining the nature of the problem and the exact module and assignment involved.

One of the Turnitin Advisers will normally respond within 24 hours, Monday-Friday during term. Please be sure to email the Turnitin Advisers if technical problems prevent you from uploading work in time to meet a submission deadline - even if you do not obtain an immediate response from one of the Advisers they will be able to notify the relevant Module Coordinator that you had attempted to submit the work before the deadline

3- SCHEDULE AND SYLLABUS

Teaching schedule

Lectures and practicals will be held 4:00-6:00 pm on Wednesdays in Term I, in room 410 at the Institute of Archaeology.

SYLLABUS

The following is an outline for the module as a whole, and identifies essential and supplementary readings relevant to each session. Information is provided as to where in the UCL library system individual readings are available; their location and Teaching Collection (TC) number, and status (whether out on loan) can also be accessed on the eUCLid computer catalogue system. Readings marked with an * are considered essential to keep up with the topics covered in the module. Copies of individual articles and chapters identified as essential reading are in the Teaching Collection in the Institute Library (where permitted by copyright) or are available online.

Shelf marks relate to Archaeology library unless otherwise indicated. Note that many of the books are available behind desk on short loan. Some books are available in both Archaeology and Science libraries (check catalogue). TC = Teaching collection, Anth = Anthropology, Per = Periodical. Most readings for this module are from journals with online access through UCL. Please let the coordinator know if you encounter any problems accessing the readings listed for this module.

SESSION 1. GEOGRAPHICAL, ECOLOGICAL AND GEOLOGICAL CONTEXT OF HUMAN EVOLUTION IN AFRICA

Understanding of the current geographical and ecological contexts, as well of the palaeoenvironmental and geological constraints of the African continent, is essential for constructing evolutionary frameworks. In this lecture, a general introduction to these subjects will be presented.

ESSENTIAL READINGS:

deMenocal, P. B. 2011. Climate and Human Evolution. *Science* 331, 540-542. Available online

Kingston, J. D. 2007. Shifting Adaptive Landscapes: Progress and Challenges in Reconstructing Early Hominid Environments. *Yearbook of Physical Anthropology* 50, 20-58. Available online

Maslin, M. A., Shultz, S. & Trauth, M. H. (2015). A synthesis of the theories and concepts of early human evolution. *Philosophical Transactions of the Royal Society B* **370**, 20140064. Available online

O'Brien, E. M. & Peters, C. R. 1999. Landforms, Climate, Ecogeographic Mosaics, and the Potential for Hominid Diversity in Pliocene Africa. In T. G. Bromage & F. Schrenk (ed.): *African Biogeography, Climate Change, and Early Hominid Evolution*. Oxford: Oxford University Press, 115-137. INST ARCH 3852, and Anthropology, Q12 Bro

FURTHER READING:

Andrews, P. & Humphrey, L. 1999. African Miocene Environments and the Transition to Early Hominines. In T. G. Bromage & F. Schrenk (ed.): *African Biogeography, Climate Change, and Early Hominid Evolution*. Oxford: Oxford University Press, 282-300. (Anthropology, Q12 Bro)

Barham, L. & Mitchell, P. J. 2008. *The First Africans. African Archaeology from the earliest toolmakers to most recent foragers*. Cambridge: Cambridge University Press. Chapter 2. INST ARCH DC 100 BAR (5 copies)

Behrensmeyer, A. K. 1982. The geological context of human evolution. *Annual Review of Earth Planetary Sciences*, 10: 39-60. Available via Jstor

Butzer, K. W. 1982. The Palaeo-ecology of the African Continent. The Physical Environment of African from Earliest Geological to Later Stone Age Times. In J.D. Clark (ed.): *Cambridge History of Africa. Volume 1. From the Earliest Times to c500 BC*. Cambridge: Cambridge University Press, 1-69. (INST ARCH DC 100 Series CAM 1)

deMenocal, P. B. 2004. African climate change and faunal evolution during the Pliocene-Pleistocene. *Earth and Planetary Science Letters* 220, 3-24. Available online

Denton, G. H. 1999. Cenozoic Climate Change. In T. G. Bromage & F. Schrenk (ed.): *African Biogeography, Climate Change, and Early Hominid Evolution*. Oxford: Oxford University Press, 94-114. (Anthropology, Q12 Bro)

Dirks, P.H.G.M., Berger, L.R., 2013. Hominin-bearing caves and landscape dynamics in the Cradle of Humankind, South Africa. Journal of African Earth Sciences 78, 109-131. Available online

Gasse, F. 2006. Climate and hydrological changes in tropical Africa during the past million years. *Comptes Rendus Palevol*, 5: 35-43. (Available online)

Kullmer, O. 2007. Geological Background of Early Hominid Sites in Africa. In (W. Henke & I. Tattersall, eds.) *Handbook of Paleoanthropology*. Berlin: Springer-Verlag, 339-356. Available online via Springer books.

Maslin, M.A., Brierley, C.M., Milner, A.M., Shultz, S., Trauth, M.H., Wilson, K.E., 2014. East African climate pulses and early human evolution. Quaternary Science Reviews 101, 1-17. (Available online)

Maslin, M. 2017. The cradle of humanity: how the changing landscape of Africa made us so smart. Oxford: Oxford University Press (ordered by IoA Library).

Owen-Smith, N. 1999. Ecological Links between African Savanna Environments, Climate Change, and Early Hominid Evolution. In T. G. Bromage & F. Schrenk (ed.): *African Biogeography, Climate Change, and Early Hominid Evolution*. Oxford: Oxford University Press, 138-149. (Anthropology, Q12 Bro)

Pickford, M. 1990. Uplift of the Roof of Africa and its bearing on the Evolution of Mankind. *Human Evolution*, 5 (1): 1-20. (Anthro-Pers)

Potts, R. 1998. Environmental hypotheses of hominin evolution. *Yearbook of Physical Anthropology*, 41: 93-136. (Anthro Pers and available online)

Potts, R. 2013. Hominin evolution in settings of strong environmental variability. *Quaternary Science Reviews* **73**, 1-13. (Available online)

Schlüter, T. 1997. *Geology of East Africa*. Borntraeger, Berling. (GEOLOGY QP 5 SCH)

Sepulchre, P.; Ramstein, G.; Fluteau, F.; Schuster, M.; Tiercelin, J. J. & Brunet, M. 2006. Tectonic Uplift and Eastern Africa Aridification. *Science*, 313: 1419-1423. (Available online)

Reed, K. E. 1997. Early hominid evolution and ecological change through the African Plio-Pleistocene. *Journal of Human Evolution*, 32: 289-322. (Anthro-Pers and also available on line)

Trauth, M. H., Larrasoaña, J. C. & Mudelsee, M. 2009. Trends, rhythms and events in Plio-Pleistocene African climate. *Quaternary Science Reviews* 28, 399-411. Available online

Werdelin, L., Sanders, W. J. (eds.) (2010). *Cenozoic Mammals of Africa*. Berkeley: University of California Press. INST ARCH DC 4 WER

WoldeGabriel, G.; Heiken, G.; White, T. D.; Asfaw, B.; Hart, W. K. & Renne, P. 2000. Volcanism, tectonism, sedimentation, and the paleoanthropological record in the Ethiopian Rift System. *Geological Society of America, Special Paper, 345*: 83-99. Science, GEOSCIENCE Pers.

SESSION 2. THE HISTORY OF PALAEOANTHROPOLOGICAL INVESTIGATIONS IN AFRICA

In this lecture we will review the history of research in Africa. First explorers and professional archaeologists began to search for early archaeological sites in the 19th century, and since then a large empirical record has been gathered. In this session, we will review the most important discoveries in Africa and their implications for our understanding of the archaeology of human evolution.

ESSENTIAL READINGS:

Dennell, R. W. 1990. Progressive gradualism, imperialism and academic fashion: Lower Palaeolithic archaeology in the 20th century. *Antiquity*, 64: 549-558. IoA Pers and available online.

Lewin, R. 1987. *Bones of Contention*. University of Chicago Press, Chicago. (INST ARCH BB 1 LEW, there are at least 7 copies in the IoA Library)

Lockwood, C. A. (2001). Letter to the Editor: Response to a Dismal View. *American Journal of Physical Anthropology* 115, 191-192. Available online

White, T. D. 2000. A View on the Science: Physical Anthropology at the Millennium. *American Journal of Physical Anthropology*, 113: 287-292. (Available online)

FURTHER READING:

Berger, L. R. & Hilton-Barber, B. 2000. *In the footsteps of Eve: exploring the mystery of human origins*. National Geographic Society, Washington, D.C. (ANTHROPOLOGY B 34 BER)

Blumenschine, R. J. 1991. Breakfast at Olorgesailie: the natural history approach to Early Stone Age archaeology. *Journal of Human Evolution*, 21: 307-327. Available online

Clark, J. D. 1990. A Personal Memoir. In Peter Robertshaw (ed.): *A History of African Archaeology*. London: James Currey Ltd., 189-204. INST ARCH DC 100 ROB & ISSUE DESK IOA ROB 4

Dennell, R. W. 2001. From Sangiran to Olduvai, 1937-1960: The quest for 'centres' of hominid origins in Asia and Africa. In Raymond Corbey & Wil Roebroeks (ed.):

Studying human origins: Disciplinary history and epistemology. Amsterdam: Amsterdam University Press, 45-66. (Inst Arch BB1 Qto COR)

Fagan, B. M. 1981. Two hundred and four years of African archaeology. In J.D. Evans, B. Cunliffe & C. Renfrew (ed.): *Antiquity and Man: Essays in Honour of Glyn Daniel*. London: Thames and Hudson, 396-421. INST ARCH AE DAN & ISSUE DESK IOA DAN

Fleagle, J. G. 2000. The Century of the Past: One Hundred Years in the Study of Primate Evolution. *Evolutionary Anthropology,* 9: 87-100. (Anthro Pers and available online)

Gabel, C. 1985. Archaeology in Sub-Saharan Africa, 1800-1960. *The International Journal of African Historical Studies*, 18 (2): 241-264. (Available electronically through JSTOR)

Gibbons, A. 2006. *The first human. The race to discover our earliest ancestors*. Doubleday, New York. INST ARCH BB 1 GIB.

Johanson, D. C. & Shreeve, J. 1989. *Lucy's child. The discovery of a human ancestor*. New York: William Morrow and Company. ANTHROPOLOGY B 34 JOH.

Kalb, J. E. 2001. *Adventures in the Bone Trade*. Copernicus books, New York. (INST ARCH BB 1 KAL)

Leakey, L. S. B. & Goodall, V. M. 1969. *Unveiling Man's Origins. Ten Decades of Thought about Human Evolution*. Methuen & Co., London. INST ARCH BB 1 LEA

Morell, V. 1995. *Ancestral Passions. The Leakey Family and the Quest for Humankind´s Beginnings*. Simon and Schuster, New York. ANTHROPOLOGY A 8 MOR

Torre, I. de la 2011. The origins of stone tool technology in Africa: a historical perspective. *Phil. Trans. R. Soc. B* 366, 1028-1037. Available online

Walker, A. & Shipman, P. 1996. *The Wisdom of Bones*. Weidenfeld & Nicolson, London. INST ARCH BB 1 WAL

White, T. D. 2004. Managing paleoanthropology´s nonrenewable resources: a view from Afar. *C.R. Palevol*, 3: 341-351. (Available online)

Wood, B., 2014. Fifty years after *Homo habilis*. Nature 508, 31-33. (Available online)

SESSION 3. EVOLUTIONARY HISTORY OF PRIMATES. HOMININS BEFORE THE APPEARANCE OF GENUS *HOMO*

In order to construct a framework for discussing the archaeology of human evolution in Africa, it is important to understand the fossil evidence background. A general overview of primate biological evolution will be presented in this session, underlying landmarks in the evolution of hominins and their most relevant phylogenetic relationships.

ESSENTIAL READINGS:

Boyd, R. & Silk, J. B. 2003. *How Humans Evolved*. 3rd Edition, Norton, New York. (Science Library short loan collection BOY)

Kimbel, W. H. 2007. The Species and Diversity of Australopiths. In (W. Henke & I. Tattersall, Ed.) *Handbook of Paleoanthropology*. Berlin: Springer-Verlag, 1539-1573. Available online via Springer books

Lewin, R. & Foley, R. 2004. *Principles of Human Evolution*. Blackwell, Oxford. (BB 1LEW). Chapters 8-10

Spoor, F., 2015. Palaeoanthropology: The middle Pliocene gets crowded. Nature 521, 432-433. Available online

White, T., 2013. Paleoanthropology: Five's a Crowd in Our Family Tree. Current Biology 23, R112-R115. Available online

Wood, B. 2010. Reconstructing human evolution: Achievements, challenges, and opportunities. *PNAS* 107, 8902-8909. Available online

Wood, B., 2014. Fifty years after *Homo habilis*. Nature 508, 31-33. Available online

FURTHER READING:

Aiello, L. & Andrews, P. 2000. The Australopithecines in Review. *Human Evolution*, 15 (1-2): 17-38. Anthro-Pers

Asfaw, B.; White, T.; Lovejoy, O.; Latimer, B.; Simpson, S. & Suwa, G. 1999. *Australopithecus garhi*: A New Species of Early Hominid from Ethiopia. *Science*, 284: 629-635. Available online

Berger, L.R., 2013. The Mosaic Nature of *Australopithecus sediba*. *Science* 340, 163-165.

Berger, L. R., Ruiter, D. J. d., Churchill, S. E., Schmid, P., Carlson, K. J., Dirks, P. H. G. M. & Kibii, J. M. 2010. *Australopithecus sediba*: A New Species of Homo-Like Australopith from South Africa. *Science* 328, 195-204. Available online

Brunet, M.; Beauvilain, A.; Coppens, Y.; Heintz, E.; Moutaye, A. H. E. & Pilbeam, D. 1995. The first australopithecine 2,500 kilometres west of the Rift Valley (Chad). *Nature*, 378: 273-274. Available online and Science Library

Brunet, M. et al 2002. A new hominid from the Upper Miocene of Chad, Central Africa. *Nature*, 418: 145-151. Available online and Science Library

Cachel, S. 2006. *Primate and Human Evolution*. Cambridge University Press, Cambridge. INST ARCH BB 1 CAC

Constantino, P. & Wood, B. 2007. The Evolution of *Zinjanthropus boisei*. *Evolutionary Anthropology* 16, 49-62. Available online

Haile-Selassie, Y. 2001. Late Miocene hominids from the Middle Awash, Ethiopia. *Nature*, 412: 178-181. Available online and Science Library

Haile-Selassie, Y., Gibert, L., Melillo, S.M., Ryan, T.M., Alene, M., Deino, A., Levin, N.E., Scott, G., Saylor, B.Z., 2015. New species from Ethiopia further expands Middle Pliocene hominin diversity. Nature 521, 483-488. Available online

Jolly, A. 1985. *The evolution of primate behaviour*. 2nd ed. MacMillan, New York. Anth B24 JOL

Kimbel, W.H., Villmoare, B., 2016. From Australopithecus to Homo: the transition that wasn't. Philosophical Transactions of the Royal Society B: Biological Sciences 371. Available online

Leakey, M. G. et al 1998. New specimens and confirmation of an early age for *Australopithecus anamensis*. *Nature*, 393: 62-66. Available online and Science Library

Leakey, M. G.; Spoor, F.; Brown, F. H.; Gathogo, P. N.; Kiarie, C.; Leakey, L. N. & McDougall, I. 2001. New hominin genus from eastern Africa shows diverse middle Pliocene lineages. *Nature*, 410: 433-440. Available online and Science Library

McHenry, H. M. & Coffing, K. 2000. *Australopithecus* to *Homo*: Transformations in Body and Mind. *Annual Review of Anthropology*, 29: 125-146. Available online

Semaw, S.; et al 2005. Early Pliocene hominids from Gona, Ethiopia. *Nature*, 433: 301-305. Available online and Science Library

Senut, B. 2007. The Earliest Putative Hominids. In (W. Henke & I. Tattersall, eds.) *Handbook of Paleoanthropology*. Berlin: Springer-Verlag, 1519-1538. Available online via Springer books

Senut, B. & Pickford, M. 2004. La dichotomie grands singes-homme revisitée. *C.R. Palevol*, 3: 265-276. Available online

Spoor, F., 2015. Palaeoanthropology: The middle Pliocene gets crowded. *Nature* 521, 432-433. Available online

Strait, D. S. & Wood, B. A. 1999. Early hominid biogeography. *Proc. Natl. Acad. Sci.*, 96: 9196-9200. Available online.

Stringer, C. & Andrews, P. 2005. *The Complete World of Human Evolution*. Thames & Hudson, London (pages 82-124). INST ARCH BB1 STR

White, T.D. 2003. Early Hominids- Diversity or Distortion? *Science*, 299: 1994-1997. (available online)

White, T. D.et al 2006. Asa Issie, Aramis and the origin of *Australopithecus*. *Nature*, 440: 883-889. (Available online)

White, T. D., Asfaw, B., Beyene, Y., Haile-Selassie, Y., Lovejoy, C. O., Suwa, G. & WoldeGabriel, G. (2009). *Ardipithecus ramidus* and the Paleobiology of Early Hominids. *Science* 326, 75-86. Available online

WoldeGabriel, G. et al 1994. Ecological and temporal placement of early Pliocene hominids at Aramis, Ethiopia. *Nature*, 371: 330-333. Available online and Science Library

Wood, B., 2012. Facing up to complexity. *Nature* 488, 162-163. Available online

Wood, B., Harrison, T., 2011. The evolutionary context of the first hominins. *Nature* 470, 347-352. Available online

Wood, B. & Constantino, P. 2007. *Paranthropus boisei*: Fifty Years of Evidence and Analysis. *Yearbook of Physical Anthropology* 50, 106-132. Available online

SESSION 4. EMERGENCE OF TECHNOLOGY

Dr Tomos Proffitt

Currently, the earliest archaeological artefacts are dated to 3.3 million years ago (Mya), and are found in East Turkana, Kenya. This early stone tool technology, the Lomekwian, was only identified in 2015, until then the earliest stone tool technology was the Oldowan from Gona (Ethiopia), dated to 2.6 Mya. Given the significant chronological gap between these two technologies is it reasonable to suggest a yet earlier origin for hominin tool use and technology? In this lecture, we examine the current theories surrounding the emergence of hominin technology. We consider the definition of tool use and technology, hominin responses to environmental changes, inferences drawn from contemporary primatological studies, the archaeological, fossil and palaeoanthropological evidence.

Essential Readings

Falótico, T., Ottoni, E.B., 2016. The manifold use of pounding stone tools by wild capuchin monkeys of Serra da Capivara National Park, Brazil. *Behaviour* 153, 421–442. Available online.

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Bobe, R., Behrensmeyer, A. K. 2004. The expansion of grassland ecosystems in Africa in relation to mammalian evolution and the origin of the genus *Homo*. *Palaeogeography, Palaeoclimatology, Palaeoecology*. 207, 399–420. Available online.

Boesch C., Head J., Robbins M. M. 2009. Complex tools sets for honey extraction among chimpanzees in Loango National Park, Gabon. *Journal of Human Evolution* 56: 560–569. Available online.

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Gumert, M.D., Malaivijitnond, S. 2013. Long-tailed macaques select mass of stone tools according to food type. *Philosophical Transactions of the Royal Society B: Biological Sciences* 368, 20120413. Available online.

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Pruetz J. D., Bertolani P. 2007. Savana chimpanzees, Pan troglodytes verus, hunt with tools. *Current Biology* 17: 412–417. Available online.

Roche, H., Blumenschine, R. J., Shea, J. J. 2009. Origins and Adaptations of Early Homo: What Archaeology Tells Us. In: Grine, F. E., Fleagle, J. G.& Leakey, R. E (Eds), The First Humans-Origin and Early Evolution of the Genus *Homo*. Springer, New York, pp. 135–147. Available online.

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SESSION 5. THE EARLIEST ARCHAEOLOGICAL SITES IN AFRICA

The Oldowan emerged in Eastern Africa some 2.6 million years ago, but earliest stone tools might be as old as 3.4 ma. We will discuss in this session their characteristics, and will review different hypotheses on why and how this technology emerged and dispersed across Africa and beyond. An emphasis will be given to the presentation of emblematic archaeological sequences such as Olduvai Gorge and the Turkana basin.

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Blumenschine, R.J., Masao, F.T., Stanistreet, I.G., Swisher, C.C., (eds.), 2012. Five Decades after *Zinjanthropus* and *Homo habilis*: Landscape Paleoanthropology of Plio-Pleistocene Olduvai Gorge, Tanzania. Journal of Human Evolution, 63: 247-438

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Plummer, T.W., Ditchfield, P.W., Bishop, L.C., Kingston, J.D., Ferraro, J.V., Braun, D.R., Hertel, F., Potts, R., 2009. Oldest Evidence of Toolmaking Hominins in a Grassland-Dominated Ecosystem. *PLoS One* 4, 1-8. Available online.

Roche, H. 2005. From Simple Flaking to Shaping: Stone-knapping Evolution among Early Hominins. In Valentine Roux & B. Bril (ed.): *Stone knapping. The necessary conditions for a uniquely hominin behaviour*. Cambridge: McDonald Institute Monographs, 35-48. (INST ARCH KA ROU)

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Stout, D., Semaw, S., Rogers, M. J. & Cauche, D. (2010). Technological variation in the earliest Oldowan from Gona, Afar, Ethiopia. *Journal of Human Evolution* 58, 474-491. Available online

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Torre, I. de la 2011. The origins of stone tool technology in Africa: a historical perspective. *Phil. Trans. R. Soc. B* 366, 1028-1037. Available online

Villmoare, B. et al., 2015 Early Homo at 2.8 Ma from Ledi- Geraru, Afar, Ethiopia. *Science* 347, 1352–1355. Available online.

White, T., 2013. Paleoanthropology: Five's a Crowd in Our Family Tree. *Current Biology* 23, R112-R115. Available online.

SESSION 6. OLDOWAN TECHNOLOGY PRACTICAL

In this practical we will handle actual Oldowan artefacts and will discuss their technical features, and how to distinguish these artefacts from rocks chipped by natural causes.

ESSENTIAL READINGS:

Haynes, C. V. 1973. The Calico Site: Artifacts or Geofacts? *Science* 181, 305-311. Available online via Jstor

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Grayson, D. K. 1986. Eoliths, Archaeological Ambiguity, and the Generation of 'Middle-Range' Research. In (D. J. Meltzer, D. D. Fowler & J. A. Sabloff, Ed.) *American Archaeology Past and Future: A Celebration of the Society for American Archaeology 1935-1985*. Washington: Smithsonian Institution Press, 77-133. ISSUE DESK IOA MEL 12

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Leakey, M. D. 1971. *Olduvai Gorge. Vol 3. Excavations in Beds I and II, 1960-1963.* Cambridge, Cambridge University Press. INST ARCH DCS Ser OLD3

Schick, K. & Toth, N. 2006. An Overview of the Oldowan Industrial Complex: The sites and the nature of their evidence. In (N. Toth & K. Schick, Ed.) *The Oldowan: case studies into the earliest Stone Age* Gosport: Stone Age Institute, 3-42. INST ARCH DCD TOT.

Torre, I. de la, Mora, R., 2018. Oldowan technological behaviour at HWK EE (Olduvai Gorge, Tanzania). Journal of Human Evolution 120, 236-273.

SESSION 7. SEMINAR: THE ARCHAEOLOGY OF THE AFRICAN EARLY PLEISTOCENE

The early Pleistocene archaeological record has been used to propose several models on the behavioural strategies by early humans. In this seminar we will discuss formation processes in the Plio-Pleistocene archaeological sites, the hunting versus scavenging debate, and early human adaptions to African changing landscapes.

ESSENTIAL READING:

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Rose, L. and F. Marshall (1996). "Meat Eating, Hominid Sociality, and Home Bases Revisited." *Current Anthropology* 37(2): 307-338. Available online.

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Blumenschine, R. J. et al. 2003. Late Pliocene *Homo* and Hominid Land Use from Western Olduvai Gorge, Tanzania. *Science*, 299: 1217-1221. Available online

Blumenschine, R.J. et al. 2012. Environments and hominin activities across the FLK Peninsula during Zinjanthropus times (1.84 Ma), Olduvai Gorge, Tanzania. Journal of Human Evolution 63, 364-383. Available online

Bunn, H. T. & Kroll, E. M. 1986. Systematic Butchery by Plio/Pleistocene Hominids at Olduvai Gorge, Tanzania. *Current Anthropology* 27, 431-452. Available online

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SESSION 8. SEMINAR: THE AFRICAN ACHEULEAN

A new culture emerged in Eastern Africa around 1.7 million years ago, the Acheulean. Technological change that led to the appearance of first large cutting tools was accompanied by new behavioural strategies and biological changes within African human populations. In this seminar, we will reflect on the evolutive significance of such changes and on the behavioural adaptations of African Acheulean hominins.

ESSENTIAL READINGS:

Beyene, Y., Katoh, S., WoldeGabriel, G., Hart, W.K., Uto, K., Sudo, M., Kondo, M., Hyodo, M., Renne, P.R., Suwa, G., Asfaw, B., 2013. The characteristics and chronology of the earliest Acheulean at Konso, Ethiopia. Proceedings of the National Academy of Sciences 110, 1584-1591. Available online

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FURTHER READING:

Antón, S. C. 2003. Natural History of *Homo erectus*. *Yearbook of Physical Anthropology*, 46: 126-170. Anthro Pers and Available online

Asfaw, B. et al 1992. The earliest Acheulean from Konso-Gardula. *Nature*, 360: 732-735. Science Library and Available online

Bennett, M. R., Harris, J. W. K., Richmond, B. G., Braun, D. R., Mbua, E., Kiura, P., Olago, D., Kibunjia, M., Omuombo, C., Behrensmeyer, A. K., Huddart, D. & Gonzalez, S. (2009). Early Hominin Foot Morphology Based on 1.5-Million-Year-Old Footprints from Ileret, Kenya. *Science* 323, 1197-1201. Available online

Binford, L. R. 1977. Olorgesailie Deserves More Than the Usual Book Review. *Journal of Anthropological Research*, 33: 493-502. (Anthro Pers and available online through JSTOR)

Cachel, S. & Harris, J. W. K. 1999. The Adaptative Zone of *Homo erectus* from an African Perspective. In H. Ullrich (ed.): *Hominid Evolution. Lifestyles and Survival Strategies*. Gelsenkirchen/Schwelm: Archaea, 129-137. INST ARCH BB 1 ULL

Clark, J. D. 1994. The Acheulian Industrial Complex in Africa and Elsewhere. In R.S. Corruchini & R.L. Ciochon (eds.): *Integrative Paths to the Past. Paleoanthropological Advances in Honor of F. Clark Howell*. New Jersey: Prentice Hall Inc., 451-469. Anthropology B 34 COR

Gibbon, R.J., Granger, D.E., Kuman, K., Partridge, T.C., 2009. Early Acheulean technology in the Rietputs Formation, South Africa, dated with cosmogenic nuclides. Journal of Human Evolution 56, 152-160. Available online

Gowlett, J. A. J. 1986. Culture and conceptualisation: the Oldowan-Acheulian gradient. In G.N. Bailey & P. Callow (eds.): *Stone Age Prehistory: studies in memory of Charles McBurney*. Cambridge: Cambridge University Press, 243-260. INST ARCH BC 100 BAI

Grimaud-Hervé, D.; Marchal, F.; Vialet, A. & Détroit, F. (eds.) 2002. *Le deuxième homme en Afrique. Homo ergaster, Homo erectus*. Éditions Artcom´/ Errance, Paris. (INST ARCH BB 1 GRI)

Heinzelin, J. de; Clark, J. D.; Schick, K. D. & Gilbert, W. H. (eds.) 2000. *The Acheulean and the Plio-Pleitocene deposits of the Middle Awash Valley Ethiopia*. Musée Royal de l´Afrique Central, Belgique Annales, Sciences Geologiques. Vol. 104, Tervuren. STORE 08-0704

Isaac, G. L. 1977. *Olorgesailie. Archeological Studies of a Middle Pleistocene Lake Basin in Kenya*. University of Chicago Press, Chicago. (Inst Arch DCD ISA)

Klein, R. G. 1988. The archaeological significance of animal bones from Acheulean sites in southern Africa. *The African Archaeological Review*, 6: 3-25. Available online
Kuman, K. 1998. The earliest South African industries. In M.D. Petraglia & R. Korisettar (ed.): *Early Human Behavior in Global Context. Rise and Diversity of the Lower Paleolithic Record*. London: Routledge, 151-186. (Inst Arch BC 120 PET)

Leakey, M. D. 1971. *Olduvai Gorge. Vol 3. Excavations in Beds I and II, 1960-1963.* Cambridge University Press, Cambridge. (DCD Ser OLD3)

Potts, R. 1989. Olorgesailie: new excavations and findings in Early and Middle Pleistocene contexts, southern Kenya rift valley. *Journal of Human Evolution*, 18: 477-484. Available online

Potts, R., Behrensmeyer, A.K., Ditchfield, P., 1999. Paleolandscape variation and Early Pleistocene hominid activities: Members 1 and 7, Olorgesailie Formation, Kenya. Journal of Human Evolution 37, 747-788. Available online

Rightmire, G. P. 2007. Later Middle Pleistocene *Homo*. In (W. Henke & I. Tattersall, eds.) *Handbook of Paleoanthropology*. Berlin: Springer-Verlag, 1695-1715. Available online via Springer books

Semaw, S., Rogers, M.J., Stout, D., 2009. The Oldowan-Acheulian Transition: Is there a "Developed Oldowan" Artifact Tradition?, in: Camps, M., Chauhan, P. (Eds.), Sourcebook of Paleolithic Transitions. Methods, Theories, and Interpretations. Springer, New York, pp. 173-193. Available online

Torre, I. de la, 2011. The Early Stone Age lithic assemblages of Gadeb (Ethiopia) and the Developed Oldowan / early Acheulean in East Africa. *Journal of Human Evolution* 60, 768-812. Available online

Torre, I. de la, Mora, R., 2014. The Transition to the Acheulean in East Africa: an Assessment of Paradigms and Evidence from Olduvai Gorge (Tanzania). *Journal of Archaeological Method and Theory* 21, 781–823. Available online

de la Torre, I., McHenry, L., Njau, J., 2018. From the Oldowan to the Acheulean at Olduvai Gorge, Tanzania – An introduction to the special issue. Journal of Human Evolution 120, 1-6.

Wynn, T. 1993. Two Developments in the Mind of Early *Homo*. *Journal of Anthropological Archaeology*, 12: 299-322. Available online

Wynn, T., Gowlett, J., 2018. The handaxe reconsidered. Evolutionary Anthropology: Issues, News, and Reviews 27, 21-29.

SESSION 9. SEMINAR: THE EMERGENCE OF ANATOMICALLY MODERN HUMANS IN AFRICA

New evolutionary pulses during the Middle Pleistocene led to the emergence of anatomically modern humans. At present, most researchers place the birthplace of *Homo sapiens* in Africa. In this seminar, we will discuss the evolutionary and behavioural implications of the emergence of *Homo sapiens*, and will assess similarities and differences with previous and later archaeological sequences in Africa and elsewhere.

ESSENTIAL READINGS:

Ambrose, S. 1998. Late Pleistocene human population bottlenecks, volcanic winter, and differentiation of modern humans. *Journal of Human Evolution* 24, 623-651. Available online.

Berger, L. R., Hawks, J., Dirks, P. H. G. M., Elliott, M. & Roberts, E. M. (2017). *Homo naledi* and Pleistocene hominin evolution in subequatorial Africa. eLife 6, e24234.

d´Errico, F. 2003. The Invisible Frontier. A Multiple Species Model for the Origin of Behavioral Modernity. *Evolutionary Anthropology*, 12: 188-202. Available online

Henshilwood, C. S. & Marean, C. W. 2003. The Origin of Modern Human Behavior. Critique of the Models and Their Test Implications. *Current Anthropology*, 44 (5): 627-651. (Anthro Pers and available online)

Jacobs, Z., Roberts, R. G., Galbraith, R. F., Deacon, H. J., Grün, R., Mackay, A., Mitchell, P., Vogelsang, R. & Wadley, L. 2008. Ages for the Middle Stone Age of Southern Africa: Implications for Human Behavior and Dispersal. *Science* 322, 733-735. Available online

Klein, R. G. 2008. Out of Africa and the Evolution of Human Behavior. *Evolutionary Anthropology* 17, 267-281. Available online

Marean, C.W., 2015. An Evolutionary Anthropological Perspective on Modern Human Origins. *Annual Review of Anthropology* 44, 533-556. Available online

McBrearty, S. & Brooks, A. S. 2000. The revolution that wasn´t: a new interpretation of the origin of modern human behavior. *Journal of Human Evolution*, 39: 453-563. (Available online)

Mercader, J. 2002. Forest People: The Role of African Rainforests in Human Evolution and Dispersal. *Evolutionary Anthropology*, 11: 117-124. (Anthro Pers and available online)

Stringer, C., 2016. The origin and evolution of *Homo sapiens*. *Philosophical Transactions of the Royal Society B: Biological Sciences* 371. Available online

Stringer, C., 2015. The many mysteries of *Homo naledi*. *eLife* 4, e10627. Available online

FURTHER READING:

Barham, L. S. 2001. Central Africa and the emergence of regional identity in the Middle Pleistocene. In Lawrence Barham, K. Robson-Brown & D.A. Roe (ed.): *Human Roots. Africa and Asia in the Middle Pleistocene*. Bristol: Western Academic & Specialist Press Limited, 65-80. (BB1 BAR)

Barham, L. S. 2002. Systematic Pigment Use in the Middle Pleistocene of South-Central Africa. *Current Anthropology*, 43 (1): 181-190. (Anthro Pers and available online)

Berger, L.R., Hawks, J., Dirks, P.H.G.M., Elliott, M., Roberts, E.M., 2017. *Homo naledi* and Pleistocene hominin evolution in subequatorial Africa. eLife 6, e24234. Available online

Brown, K.S., Marean, C.W., Jacobs, Z., Schoville, B.J., Oestmo, S., Fisher, E.C., Bernatchez, J., Karkanas, P., Matthews, T., 2012. An early and enduring advanced technology originating 71,000 years ago in South Africa. Nature 491, 590-594. Available online

Clark, J. D. 1988. The Middle Stone Age of East Africa and the Beginnings of Regional Identity. *Journal of World Prehistory*, 2 (3): 235-305. (IoA Pers)

Clark, J. D. (ed) 2001. *Kalambo Falls Prehistoric Site, III: The Earlier Cultures: Middle and Earlier Stone Age*. Cambridge University Press, Cambridge. INST ARCH DCD CLA

Deacon, H. J. & Wurz, S. 2001. Middle Pleistocene populations of southern Africa and the emergence of modern behaviour. In L. Barham, K. Robson-Brown & D.A. Roe (ed.): *Human Roots. Africa and Asia in the Middle Pleistocene*. Bristol: Western Academic & Specialist Press Limited, 55-63. (BB1 BAR)

d'Errico, F. & Henshilwood, C. S. 2007. Additional evidence for bone technology in the southern African Middle Stone Age. *Journal of Human Evolution* 52, 142-163. Available online

Dirks, P.H.G.M., et al 2015. Geological and taphonomic context for the new hominin species *Homo naledi* from the Dinaledi Chamber, South Africa. eLife 4, e09561. Available online

Dirks, P.H.G.M., et al 2017. The age of Homo naledi and associated sediments in the Rising Star Cave, South Africa. eLife 6, e24231. Available online

Faith, J. T. 2008. Eland, buffalo, and wild pigs: were Middle Stone Age humans ineffective hunters? *Journal of Human Evolution* 55, 24-36. Available online

Henshilwood, C.; d'Errico, F.; Vanhaeren, M.; van Niekerk, K. & Jacobs, Z. 2004. Middle Stone Age Shell Beads from South Africa. *Science*, 304: 404. Available online

Klein, R. G. 2001. Southern Africa and Modern Human Origins. *Journal of Anthropological Research*, 57 (1): 1-16. Available online

Klein, R., Avery, G., Cruz-Uribe, K., Halkett, D., Parkington, J. E., Steele, T., Volman, T. P. & Yates, R. 2004. The Ysterfontein 1 Middle Stone Age site, South Africa, and early human exploitation of coastal resources. *Proceedings of the National Academy of Sciences* 101, 5708-5715. Available online

Lahr, M. M. & Foley, R. 2001. Mode 3, *Homo helmei* and the pattern of human evolution in the Middle Pleistocene. In L. Barham & K. Robson-Brown (ed.): *Human Roots. Africa and Asia in the Middle Pleistocene*. Bristol: Western Academic & Specialist Press Limited, 23-39. (BB1 BAR)

Marean, C.W., 2016. The transition to foraging for dense and predictable resources and its impact on the evolution of modern humans. *Philosophical Transactions of the Royal Society B: Biological Sciences* 371. Available online.

Marean, C. W., Bar-Matthews, M., Bernatchez, J., Fisher, E., Goldberg, P., Herries, A. I. R., Jacobs, Z., Jerardino, A., Karkanas, P., Minichillo, T., Nilssen, P. J., Thompson, E., Watts, I. & Williams, H. M. 2007. Early human use of marine resources and pigment in South Africa during the Middle Pleistocene. *Nature* 449, 905-909. Available online

McBrearty, S. 2001. The Middle Pleistocene of east Africa. In Lawrence Barham , K. Robson-Brown & D.A. Roe (ed.): *Human Roots. Africa and Asia in the Middle Pleistocene*. Bristol: Western Academic & Specialist Press Limited, 81-98. (BB1 BAR)

McBrearty, S. 2003. Patterns of technological change at the origin of *Homo sapiens*. *Before farming*, 3: 1-6. Available online

Mourre, V., Villa, P. & Henshilwood, C. S. (2010). Early Use of Pressure Flaking on Lithic Artifacts at Blombos Cave, South Africa. *Science* 330, 659-662. Available online

Rightmire, G. P. 1995. Diversity within the Genus *Homo*. In E. Vrba, G. Denton, T.C. Partridge & L. Burckle (ed.): *Paleoclimate and Evolution*. New Haven: Yale University Press, 483-492. (INST ARCH BB1 VRB)

Rightmire, G. P. 2008. *Homo* in the Middle Pleistocene: Hypodigms, Variation, and Species Recognition. *Evolutionary Anthropology* 17: 8-21. Available online

Smith, E.I., Jacobs, Z., Johnsen, R., Ren, M., Fisher, E.C., Oestmo, S., Wilkins, J., Harris, J.A., Karkanas, P., Fitch, S., Ciravolo, A., Keenan, D., Cleghorn, N., Lane, C.S., Matthews, T., Marean, C.W., 2018. Humans thrived in South Africa through the Toba eruption about 74,000 years ago. Nature 555, 511-515.
Stringer, C. (2003). Out of Ethiopia. *Nature* 423, 692-695. Available online.

Texier, P.-J., Porraz, G., Parkington, J., Rigaud, J.-P., Poggenpoel, C., Miller, C., Tribolo, C., Cartwright, C., Coudenneau, A., Klein, R., Steele, T. & Verna, C. (2010). A Howiesons Poort tradition of engraving ostrich eggshell containers dated to 60,000 years ago at Diepkloof Rock Shelter, South Africa. *Proceedings of the National Academy of Sciences* 107, 6180-6185. Available online

Tryon, C. A. & McBrearty, S. 2002. Tephrostratigraphy and the Acheulian to Middle Stone Age transition in the Kapthurin Formation, Kenya. *Journal of Human Evolution*, 42: 211-235. Available online

Willoughby, P. R. 2007. *The evolution of modern humans in Africa: a comprehensive guide*. AltaMira Press, Plymouth, INST ARCH BB 1 WIL

White, T. D.; Asfaw, B.; DeGusta, D.; Gilbert, H.; Richards, G. D.; Suwa, G. & Howell, F. C. 2003. Pleistocene *Homo sapiens* from Middle Awash, Ethiopia. *Nature*, 423: 742-747. Available online

Zilhao, J. 2007. The Emergence of Ornaments and Art: An Archaeological Perspective on the Origins of "Behavioral Modernity". *Journal of Archaeological Research* 15, 1-54. Available online

SESSION 10. ACHEULEAN AND MIDDLE STONE AGE TECHNOLOGY PRACTICAL

This practical will be devoted to analyse and compare Acheulean artefacts from African assemblages, and to understand continuities and ruptures between this Mode 2 technology and the Middle Stone Age, from which artefacts held at the Institute will be also handled during the session.

Boëda, E. 1995. Levallois: A Volumetric Construction, Methods, A Technique. In H.L. Dibble & O. Bar-Yosef (eds.): *The Definition and Interpretation of Levallois Technology*. Madison: Prehistoric Press, 41-68. Inst Arch KA DIB

Inizan, M. L.; Roche, H. & Tixier, J. 1992. *Technology of knapped stone*. CREP, Meudon. KA INI

Jones, P. R. (1994). Results of experimental work in relation to the stone industries of Olduvai Gorge. In (M. D. Leakey & D. A. Roe, Ed.) *Olduvai Gorge. Volume 5. Excavations in Beds III, IV and the Masek Beds, 1968-1971*. Cambridge: Cambridge University Press, 254-298. INST ARCH DCD OLD

Leakey, M. D. 1971. *Olduvai Gorge. Vol 3. Excavations in Beds I and II, 1960-1963.* Cambridge, Cambridge University Press. DCS Ser OLD3

de la Torre, I., Mora, R., 2018. Technological behaviour in the early Acheulean of EF-HR (Olduvai Gorge, Tanzania). *Journal of Human Evolution* 120, 329-377.

Toth, N. 2001. Experiments in quarrying large flake blanks at Kalambo Falls. In (J. D. Clark, Ed.) *Kalambo Falls Prehistoric Site, III: The Earlier Cultures: Middle and Earlier Stone Age*. Cambridge: Cambridge University Press, 600-604. INST ARCH DCD CLA

Van Peer, P. 1991. Interassemblage Variability and Levallois Styles: The Case of the Northern African Middle Palaeolithic. *Journal of Anthropological Archaeology*, 10: 107-151. Available online.

SEMINARS

As described above, the structure of seminars requires that some students support a particular interpretation of the archaeological evidence, basing their arguments on the bibliography provided. Then, another group of students will defend an alternative hypothesis, again according to the references suggested.

It is expected that the exposition of rival explanations on the interpretation of case studies will promote a discussion environment in which all students participate. Therefore, discussants in each seminar should choose one of the blocks of articles that are suggested below, and present their arguments before the rest of the class. The distribution of the following blocks of articles should be agreed in the first session of this module, in order to have enough time to prepare the seminars.

SEMINAR 1 (associated to Session 7): THE ARCHAEOLOGY OF THE AFRICAN EARLY PLEISTOCENE

Topics to develop: Site formation processes; hunting vs. scavenging; early human behaviour; landscape use by early humans

Group 1: The home base hypothesis and "relatives"

Isaac, G. L. 1978. The Food-sharing Behavior of Protohuman Hominids. *Scientific American*, 238 (4): 90-108. Available online.

Plummer, T. 2004. Flaked Stones and Old Bones: Biological and Cultural Evolution at the Dawn of Technology. *Yearbook of Physical Anthropology*, 47: 118-164. (Anthro Pers and available online).

Potts, R. 1984. Home Bases and Early Hominids. *American Scientist*, 72: 338-347. Available online.

Rose, L. & Marshall, F. 1996. Meat Eating, Hominid Sociality and Home Bases Revisited. *Current Anthropology*, 37 (2): 307-338. Available online.

Smith, J.E., Swanson, E.M., Reed, D., Holekamp, K.E., 2012. Evolution of Cooperation among Mammalian Carnivores and Its Relevance to Hominin Evolution. Current Anthropology 53, S436-S452. Available online.

Group 2: The scavenging niche

Blumenschine, R. J. 1991. Hominid carnivory and foraging strategies, and the socio-economic function of early archaeological sites. *Philosophical Transactions of the Royal Society, London*, 334: 211-221. Available online via Jstor

Blumenschine, R. J. & Peters, C. R. 1998. Archaeological predictions for hominid land use in the paleo-Olduvai Basin, Tanzania, during lowermost Bed II times. *Journal of Human Evolution*, 34: 565-607. (Anthro-Pers and also available on line)

Blumenschine, R.J., et al 2012. Environments and hominin activities across the FLK Peninsula during Zinjanthropus times (1.84 Ma), Olduvai Gorge, Tanzania. Journal of Human Evolution 63, 364-383. Available online

Capaldo, S. D. 1997. Experimental determinations of carcass processing by Plio-Pleistocene hominids and carnivores at FLK 22 (*Zinjanthropus*), Olduvai Gorge, Tanzania. *Journal of Human Evolution* 33, 555-597. Available online.

Pobiner, B.L., 2016. Meat-Eating Among the Earliest Humans. American Scientist 104, 110-117. Available online.

Plummer, T. 2004. Flaked Stones and Old Bones: Biological and Cultural Evolution at the Dawn of Technology. *Yearbook of Physical Anthropology*, 47: 118-164. (Anthro Pers and available online).

Smith, J.E., Swanson, E.M., Reed, D., Holekamp, K.E., 2012. Evolution of Cooperation among Mammalian Carnivores and Its Relevance to Hominin Evolution. Current Anthropology 53, S436-S452. Available online.

Group 3: Discussions on site formation processes

Binford, L. R. 1987. Searching for camps and missing the evidence?: another look at the Lower Paleolithic. In O. Soffer (ed.): *The Pleistocene Old World: Regional Perspectives*. New York: Plenum Press, 17-31. TC INST ARCH 3853 and INST ARCH BC 120 SOF.

Blumenschine, R. J. & Masao, F. T. 1991. Living sites at Olduvai Gorge, Tanzania? Preliminary landscape archaeology results in the basal Bed II lake margin zone. *Journal of Human Evolution*, 21: 451-462. Available online.

Capaldo, S. D. 1997. Experimental determinations of carcass processing by Plio-Pleistocene hominids and carnivores at FLK 22 (*Zinjanthropus*), Olduvai Gorge, Tanzania. *Journal of Human Evolution* 33, 555-597. Available online.

Kroll, E. M. & Isaac, G. L. 1984. Configurations of artifacts and bones at early Pleistocene sites in East Africa. In H.J. Hietala (ed.): *Intrasite Spatial Analysis in Archaeology*. Cambridge: Cambridge University Press, 4-31. TC INST ARCH 3854 and Inst Arch BC 100 Qto HIE

Potts, R. 1986. Temporal span of bone accumulations at Olduvai Gorge and implications for early hominid foraging behavior. *Paleobiology*, 12 (1): 25-31. Available online via JSTOR

Plummer, T. 2004. Flaked Stones and Old Bones: Biological and Cultural Evolution at the Dawn of Technology. *Yearbook of Physical Anthropology*, 47: 118-164. (Anthro Pers and available online)

Complementary readings

Benito-Calvo, A. & Torre, I. de la (2011). Analysis of orientation patterns in Olduvai Bed I assemblages using GIS techniques: Implications for site formation processes. *Journal of Human Evolution* 61, 50-60. Available online

Binford, L. R. 1988. Fact and Fiction about the *Zinjanthropus* Floor: Data, Arguments, and Interpretations. *Current Anthropology*, 29 (1): 123-135. Available online.

Binford, L. R.; Mills, M. G. L. & Stone, N. M. 1988. Hyena Scavenging Behavior and Its Implications for the Interpretation of Faunal Assemblages from FLK 22 (the Zinj floor) at Olduvai Gorge. *Journal of Anthropological Archaeology*, 7: 99-135. (reprinted in Binford (1989) *Debating Archaeology*. New York, Academic Press, Inst Arch AH BIN)

Blumenschine, R. J. 1987. Characteristics of an Early Hominid Scavenging Niche. *Current Anthropology*, 28 (4): 383-407. (Available online through Jstor)

Bunn, H. T. & Kroll, E. M. 1986. Systematic Butchery by Plio/Pleistocene Hominids at Olduvai Gorge, Tanzania. *Current Anthropology* 27, 431-452. Available online

Isaac, G. L. & Crader, D. C. 1981. To What Extent Were Early Hominids Carnivorous? An Archaeological Perspective. In R.S.O. Harding & G. Teleki (eds.): *Omnivorous Primates: Gathering and Hunting in Human Evolution*. New York: Columbia University Press, 37-103. INST ARCH BB 1 HAR

Kroll, E. M. & Isaac, G. L. 1984. Configurations of artifacts and bones at early Pleistocene sites in East Africa. In H.J. Hietala (ed.): *Intrasite Spatial Analysis in Archaeology*. Cambridge: Cambridge University Press, 4-31. Inst Arch BC 100 Qto HIE

Njau, J.K., Blumenschine, R.J., 2012. Crocodylian and mammalian carnivore feeding traces on hominid fossils from FLK 22 and FLK NN 3, Plio-Pleistocene, Olduvai Gorge, Tanzania. Journal of Human Evolution 63, 408-417. Available online.

Petraglia, M. D. & Potts, R. 1994. Water Flow and the Formation of Early Pleistocene Artifact Sites in Olduvai Gorge, Tanzania. *Journal of Anthropological Archaeology*, 13: 228-254. Available online

Potts, R. 1988. *Early Hominid Activities at Olduvai*. Aldine and Gruyter, New York. (Inst Arch DCD POT)

Potts, R. 1991. Why the Oldowan? Plio-Pleistocene toolmaking and the transport of resources. *Journal of Anthropological Research*, 47 (2): 153-176. Anthro Pers and available online via Jstor

Sahle, Y., El Zaatari, S., White, T.D., 2017. Hominid butchers and biting crocodiles in the African Plio–Pleistocene. *Proceedings of the National Academy of Sciences* 114, 13164-13169.

de la Torre, I., Benito-Calvo, A., Proffitt, T., 2018. The impact of hydraulic processes in Olduvai Beds I and II, Tanzania, through a particle dimension analysis of stone tool assemblages. *Geoarchaeology* 33, 218-236.

SEMINAR 2 (associated to Session 8): THE AFRICAN ACHEULEAN

Topics to develop: site formation processes; large accumulation of artefacts in the Acheulean; "fate" of geladas at Olorgesailie; hunting in the African Acheulean

Group 1: high integrity of sites in Olorgesailie

Isaac, G. L. 1977. *Olorgesailie. Archeological Studies of a Middle Pleistocene Lake Basin in Kenya*. University of Chicago Press, Chicago. (Inst Arch DCD ISA) (no need to read it all, just those part relevant to site formation processes and the geladas site).

Jablonski, N. G.; Lyman, R. L. & Shipman, P. 1982. More on *Theropithecus* at Olorgesailie: Age Structure and Mortality. *Current Anthropology*, 23 (3): 349-352. (Available online via Jstor)

Shipman, P.; Bosler, W. & Davis, K. L. 1981. Butchering of Giant Geladas at an Acheulian Site. *Current Anthropology*, 22 (3): 257-268. (Anthro Pers and available online through JSTOR)

Potts, R. 1989. Olorgesailie: new excavations and findings in Early and Middle Pleistocene contexts, southern Kenya rift valley. *Journal of Human Evolution*, 18: 477-484. Available online

Potts, R.; Behrensmeyer, A. K. & Ditchfield, P. 1999. Paleolandscape variation and Early Pleistocene hominid activities: Members 1 and 7, Olorgesailie Formation, Kenya. *Journal of Human Evolution*, 37: 747-788. (Anthro-Pers and also available on line)

Group 2: underlining the role of natural processes in Olorgesailie

Binford, L. R. 1977. Olorgesailie Deserves More Than the Usual Book Review. *Journal of Anthropological Research*, 33: 493-502. (Anthro Pers and available online via Jstor)

Binford, L. R. & Todd, L. C. 1982. On Arguments for the "Butchering" of Giant Geladas. *Current Anthropology*, 23 (1): 108-111. Available online via Jstor

Isaac, G. L. 1977. *Olorgesailie. Archeological Studies of a Middle Pleistocene Lake Basin in Kenya*. University of Chicago Press, Chicago. (Inst Arch DCD ISA) (no need to read it all, just those part relevant to site formation processes and the geladas site).

Koch, C. P. 1990. Bone breakage, differential preservation and *Theropithecus* butchery at Olorgesailie, Kenya. In S. Solomon, I. Davidson & D. Watson (ed.): *Problem Solving in Taphonomy, vol. 2*. Queensland: University of Queensland, Anthropology Museum, Tempus, 158-166. IoA TC 3477 & INST ARCH BB 3 SOL

Complementary readings:

Antón, S. C. 2003. Natural History of *Homo erectus*. *Yearbook of Physical Anthropology*, 46: 126-170. Anthro Pers and Available online

Asfaw, B. et al 1992. The earliest Acheulean from Konso-Gardula. *Nature*, 360: 732-735. Science Library and available online.

Cachel, S. & Harris, J. W. K. 1999. The Adaptative Zone of *Homo erectus* from an African Perspective. In H. Ullrich (ed.): *Hominid Evolution. Lifestyles and Survival Strategies*. Gelsenkirchen/Schwelm: Archaea, 129-137. INST ARCH BB 1 ULL

Clark, J. D. 1994. The Acheulian Industrial Complex in Africa and Elsewhere. In R.S. Corruchini & R.L. Ciochon (eds.): *Integrative Paths to the Past. Paleoanthropological Advances in Honor of F. Clark Howell*. New Jersey: Prentice Hall Inc., 451-469. Anthropology B 34 COR

Cruz-Uribe, K.; Klein, R. G.; Avery, G.; Avery, M.; Halkett, D.; Hart, T.; Milo, R. G.; Sampson, C. G. & Volman, T. P. 2003. Excavation of buried Late Acheulean (Mid-Quaternary) land surfaces at Duinefontein 2, Western Cape Province, South Africa. *Journal of Archaeological Science*, 30: 559-575. (Available online)

Delagnes, A.; Lenoble, A.; Harmand, S.; Brugal, J.-P.; Prat, S.; Tiercelin, J. J. & Roche, H. 2006. Interpreting pachyderm single carcass sites in the African Lower and Early Middle Pleistocene record: A multidisciplinary approach to the site of Nadung'a 4 (Kenya). *Journal of Anthropological Archaeology*, 25: 448-465. (Available online)

Gowlett, J. A. J. 1993. Le site Acheuléen de Kilombe: stratigraphie, géochronologie, habitat et industrie lithique. *L´Anthropologie*, 97 (1): 69-84. (Inst Arch Pers)

Gutierrez, M., Guérin, C., Léna, M. & Piedade da Jesus, M. 2001. Exploitation d'un grand cétacé au Paléolithique ancien : le site de Dungo V à Baia Farta (Benguela, Angola). *Comptes Rendus de l´Academie des Sciences Paris- Sciences de la Terre et des planètes* 332, 357-362. Available online

Klein, R. G. 1988. The archaeological significance of animal bones from Acheulean sites in southern Africa. *The African Archaeological Review*, 6: 3-25. Available online.

de la Torre, I., Wehr, K., 2018. Site formation processes of the early Acheulean assemblage at EF-HR (Olduvai Gorge, Tanzania). Journal of Human Evolution 120, 298-328.

SEMINAR 3 (associated to Session 9): THE EMERGENCE OF ANATOMICALLY MODERN HUMANS IN AFRICA

Topics to develop: Technological and behavioural significance of the MSA in relation to the ESA; symbolism in the MSA; Similarities and differences between the MSA and the LSA.

Group 1: Late and punctual emergence of modern human behaviour

Klein, R. G. 1983. The Stone Age Prehistory of Southern Africa. *Annual Review of Anthropology*, 12: 25-48. (Available online via Jstor)

Klein, R. G. 2001. Southern Africa and Modern Human Origins. *Journal of Anthropological Research*, 57 (1): 1-16. (Available online via Jstor)

Klein, R., Avery, G., Cruz-Uribe, K., Halkett, D., Parkington, J. E., Steele, T., Volman, T. P. & Yates, R. 2004. The Ysterfontein 1 Middle Stone Age site, South Africa, and early human exploitation of coastal resources. *Proceedings of the National Academy of Sciences* 101, 5708-5715. Available online

Mellars, P. (2005). The Impossible Coincidence. A Single-Species Model for the Origins of Modern Human Behavior in Europe. *Evolutionary Anthropology* **14**, 12-27. Available online.

Group 2: Gradual evolution of modern behaviour in Africa

Henshilwood, C.; d'Errico, F.; Vanhaeren, M.; van Niekerk, K. & Jacobs, Z. 2004. Middle Stone Age Shell Beads from South Africa. *Science*, 304: 404. (Available online)

Henshilwood, C. S. & Marean, C. W. 2003. The Origin of Modern Human Behavior. Critique of the Models and Their Test Implications. *Current Anthropology*, 44 (5): 627-651. (Anthro Pers and available online)

McBrearty, S. & Brooks, A. S. 2000. The revolution that wasn´t: a new interpretation of the origin of modern human behavior. *Journal of Human Evolution*, 39: 453-563. (Available online)

Shea, J. J. 2011. *Homo sapiens* Is as *Homo sapiens* Was. Behavioral Variability versus "Behavioral Modernity" in Paleolithic Archaeology. *Current Anthropology* **52**, 1-35. (Available online)

Complementary readings:

Ambrose, S. 1998. Late Pleistocene human population bottlenecks, volcanic winter, and differentiation of modern humans. *Journal of Human Evolution* 24, 623-651. Available online

Barham, L. S. 2001. Central Africa and the emergence of regional identity in the Middle Pleistocene. In L. Barham, K. Robson-Brown & D.A. Roe (ed.): *Human Roots. Africa and Asia in the Middle Pleistocene*. Bristol: Western Academic & Specialist Press Limited, 65-80. (BB1 BAR)

Barham, L. S. 2002. Systematic Pigment Use in the Middle Pleistocene of South-Central Africa. *Current Anthropology*, 43 (1): 181-190. (Anthro Pers and available online)

Berger, L. R., Hawks, J., Dirks, P. H. G. M., Elliott, M. & Roberts, E. M. (2017). *Homo naledi* and Pleistocene hominin evolution in subequatorial Africa. eLife 6, e24234.

Deacon, H. J. & Wurz, S. 2001. Middle Pleistocene populations of southern Africa and the emergence of modern behaviour. In Lawrence Barham, K. Robson-Brown & D.A. Roe (ed.): *Human Roots. Africa and Asia in the Middle Pleistocene*. Bristol: Western Academic & Specialist Press Limited, 55-63. (BB1 BAR)

d´Errico, F. 2003. The Invisible Frontier. A Multiple Species Model for the Origin of Behavioral Modernity. *Evolutionary Anthropology*, 12: 188-202. Available online.

Faith, J. T. 2008. Eland, buffalo, and wild pigs: were Middle Stone Age humans ineffective hunters? *Journal of Human Evolution* 55, 24-36. Available online

Henshilwood, C.; d'Errico, F.; Vanhaeren, M.; van Niekerk, K. & Jacobs, Z. 2004. Middle Stone Age Shell Beads from South Africa. *Science*, 304: 404. Available online

Hublin, J.-J., Ben-Ncer, A., Bailey, S. E., Freidline, S. E., Neubauer, S., Skinner, M. M., Bergmann, I., Le Cabec, A., Benazzi, S., Harvati, K. & Gunz, P. (2017). New fossils from Jebel Irhoud, Morocco and the pan-African origin of *Homo sapiens*. *Nature* **546**, 289-292. Available online

Klein, R. G. 1995. Anatomy, Behavior, and Modern Human Origins. *Journal of World Prehistory* 9, 167-198. Available online

Lahr, M. M. & Foley, R. 2001. Mode 3, *Homo helmei* and the pattern of human evolution in the Middle Pleistocene. In L. Barham & K. Robson-Brown (ed.): *Human Roots. Africa and Asia in the Middle Pleistocene*. Bristol: Western Academic & Specialist Press Limited, 23-39. (BB1 BAR)

Marean, C.W., 2015. An Evolutionary Anthropological Perspective on Modern Human Origins. Annual Review of Anthropology 44, 533-556. Available online

Marean, C. W., Bar-Matthews, M., Bernatchez, J., Fisher, E., Goldberg, P., Herries, A. I. R., Jacobs, Z., Jerardino, A., Karkanas, P., Minichillo, T., Nilssen, P. J., Thompson, E., Watts, I. & Williams, H. M. 2007. Early human use of marine resources and pigment in South Africa during the Middle Pleistocene. *Nature* 449, 905-909. Available online

McBrearty, S. 2001. The Middle Pleistocene of east Africa. In Lawrence Barham, K. Robson-Brown & D.A. Roe (ed.): *Human Roots. Africa and Asia in the Middle Pleistocene*. Bristol: Western Academic & Specialist Press Limited, 81-98. (BB1 BAR)

McBrearty, S. 2003. Patterns of technological change at the origin of *Homo sapiens*. *Before farming*, 3: 1-6. Available online

Mercader, J. 2002. Forest People: The Role of African Rainforests in Human Evolution and Dispersal. *Evolutionary Anthropology*, 11: 117-124. (Anthro Pers and available online)

Rightmire, G. P. 1995. Diversity within the Genus *Homo*. In E. Vrba, G. Denton, T.C. Partridge & L. Burckle (ed.): *Paleoclimate and Evolution*. New Haven: Yale University Press, 483-492. (INST ARCH BB1 VRB)

Smith, E.I., Jacobs, Z., Johnsen, R., Ren, M., Fisher, E.C., Oestmo, S., Wilkins, J., Harris, J.A., Karkanas, P., Fitch, S., Ciravolo, A., Keenan, D., Cleghorn, N., Lane, C.S., Matthews, T., Marean, C.W., 2018. Humans thrived in South Africa through the Toba eruption about 74,000 years ago. Nature 555, 511-515.

Texier, P.-J., Porraz, G., Parkington, J., Rigaud, J.-P., Poggenpoel, C., Miller, C., Tribolo, C., Cartwright, C., Coudenneau, A., Klein, R., Steele, T. & Verna, C. (2010). A Howiesons Poort tradition of engraving ostrich eggshell containers dated to 60,000 years ago at Diepkloof Rock Shelter, South Africa. *Proceedings of the National Academy of Sciences* 107, 6180-6185. Available online

Tryon, C. A. & McBrearty, S. 2002. Tephrostratigraphy and the Acheulian to Middle Stone Age transition in the Kapthurin Formation, Kenya. *Journal of Human Evolution*, 42: 211-235. Available online

4- ONLINE RESOURCES

Moodle

The handbook and all module information is available in Moodle.

5- ADDITIONAL INFORMATION

Libraries and other resources

The online reading list for this module is available here:

http://readinglists.ucl.ac.uk/lists/8C3D7077-4E8F-70C6-035F-2AE9F9A62728.html

In addition to the Library of the Institute of Archaeology, other libraries in UCL with holdings of particular relevance to this degree are Anthropology and Sciences. Nowadays many of the relevant resources for this module are available in the internet. E-resources such as JStor and Journal of Human Evolution are particular helpful for this module.

Information for intercollegiate and interdepartmental students

Students enrolled in Departments outside the Institute should obtain the Institute's coursework guidelines from Judy Medrington (email j.medrington@ucl.ac.uk), which will also be available on Moodle.

INSTITUTE OF ARCHAELOGY COURSEWORK PROCEDURES

General policies and procedures concerning modules and coursework, including submission procedures, assessment criteria, and general resources, are available on the IoA Student Administration section of Moodle:
https://moodle.ucl.ac.uk/module/view.php?id=40867

It is essential that you read and comply with these. Note that some of the policies and procedures will be different depending on your status (e.g. undergraduate, postgraduate taught, affiliate, graduate diploma, intercollegiate, interdepartmental). If in doubt, please consult your module co-ordinator.

GRANTING OF EXTENSIONS: Note that there are strict UCL-wide regulations with regard to the granting of extensions for coursework. Note that Module Coordinators are not permitted to grant extensions. All requests for extensions must be submitted on the appropriate UCL form, together with supporting documentation, via Judy Medrington's office and will then be referred on for consideration. Please be aware that the grounds that are acceptable are limited. Those with long-term difficulties should contact UCL Student Disability Services to make special arrangements. Please see the IoA Student Administration section of Moodle for further information. Additional information is given here
http://www.ucl.ac.uk/srs/academic-manual/c4/extenuating-circumstances/