

23 January 2017

## Anthro 1235/HEB 1235

### African Roots: Origins and dispersals of modern humans

**Instructors:** Drs. Bridget Alex (HEB) and Christian Tryon (Anthropology)

**Contact:**

Bridget Alex  
 balex@fas.harvard.edu  
 Office hours by appointment  
 MCZ 533E

Christian Tryon  
 christiantryon@fas.harvard.edu  
 Office hours T 3-4 pm  
 Peabody Museum Room 575

**Course time and location:** T 1-3 pm, Peabody Museum 561

**Course description:** Genetic, fossil, and archaeological evidence indicate that all living humans descend from a population living in Africa around 200,000 years ago. By 40,000 years ago modern humans had expanded across Africa and dispersed to Eurasia and Australia, in the process colonizing new lands and entering regions inhabited by other hominins like the Neanderthals. The global spread of modern humans involved a complex process of interbreeding, competition, and extinctions of different human lineages. What biological, behavioral, and technological changes allowed for the origin and dispersals of modern humans? Why are we still here, whereas other members of our genus, such as *Homo erectus*, went extinct? This discussion seminar will uniquely incorporate hands-on examination of the rich collections of Paleolithic artifacts and fossils housed at Harvard University's Peabody Museum as well as experimental replication of ancient tools.

Mid-level seminar. No prerequisites. For Archaeology concentrators fulfills the biological or human evolution requirement.

**Course objectives:**

- Deepen understanding of
  - the fossil, archaeological, and genetic records pertaining to *Homo sapiens* origins in Africa and dispersals outside of Africa
  - modern humans origins from an evolutionary perspective
  - the shared traits and history of all living humans
  - how *Homo sapiens* differ from other hominins and primates
  - ecological, cultural, and historical processes that lead to dispersals
- Develop ability to synthesize and critique primary literature
- Develop skills of independent scholarship and scientific thinking
- Improve oral and written communication

**Course structure:**

The course is primarily student-led discussions about assigned readings. The weekly reading load is 2-3 journal articles or book chapters (~50 pages total). On discussion days, two students serve as leaders. Everyone is expected to be prepared for and participate in class discussions.

There will also be two in-class laboratory exercises, which will involve analyzing fossils and artifacts from the Peabody Museum collections.

**Course materials:**

Students will need to acquire the following textbook, which is available for purchase at the Harvard Coop and on reserve at Tozzer library:

*Settling the Earth: The Archaeology of Deep Human History* by Clive Gamble. Cambridge University Press. 2013. ISBN: 9781107601079.

**Additional readings will be posted to the course website at least one week prior to the class in which they are discussed.**

**Assignments/evaluation summary:**

~40% Class participation

- Introduction meeting
- Discussion leader (1-2 times)
- Regular participation

~60% Written assignments

- Weekly response papers (6 total)
- News & Views (1-2 total)
- Peabody collections analysis (2 total)
- Final response paper

~1-2% Bonus

- Attendance and written summary of outside lectures relevant to class

**Assignment details:**

1) Introduction meeting (*10 points, 3.5%*):

Students must complete a brief (15 minute) introductory meeting with the instructors within the first two weeks of class. During this meeting we will choose which class discussions the students will lead.

2) Discussion leader (*30 points, 10.5%*):

Students serve as discussion leaders for class meetings. At least one week prior, the discussion leaders will submit 1) a brief discussion outline for the instructors and 2) one reading to assign

the class, in addition to the 1-2 readings chosen by the instructors. During class the leaders will begin with a 10-15 minute summary of the readings and then they will facilitate discussion.

\*Students chose between writing second News & Views or serving as discussion leader a second time (30 points).

3) Regular participation (55 points, 5 points per class, 20%):

Students prepare for and participate in class meetings. Instructor permission required for absences.

4) Informal response papers (60 points, 10 points each, 6 total out of 8 options, 21%):

Students will write short (1-2 pages, double spaced) informal responses to questions posted by the instructors one week prior. The questions will relate to the assigned readings and be due at the beginning of class, the day the related readings are discussed. Students will choose 6 out of 8 opportunities to complete response papers.

5) News and Views:

Students will write a News and Views style article; that is, a 600-800 word story, written for the general educated public, that discuss a specific research paper. The goal is to summarize and contextual research for non-specialists. References should follow the style of *Science* or *Nature*.

Students will turn in a draft, receive feedback from the instructor, and turn in a revised graded version (draft 5 points, final 25 points).

\*Students chose between writing second News & Views or serving as discussion leader a second time (30 points, 10.5%).

6) Peabody collections analysis (40 points, 20 points each, 2 total, 14%)

We will complete two in-class laboratory exercises, analyzing artifacts and fossils from the Peabody Museum collections. Students will submit reports on the analysis (3-4 pages double spaced).

7) Final response paper (30 points, 10.5%):

Students will be given a final question to answer in a *formal* response paper (5 pages double spaced).

8) Bonus lectures (3 points each, 2 possible, 1-2%)

Students may earn bonus points by attending and writing 1 page summaries of lectures outside of class that are relevant to our course content.

### **Late assignments**

No extensions will be given for Informal Response Papers, but students will choose 6 out of 8 opportunities to submit them. For other written assignments (News & Views, Collections Analysis) extensions will be granted *provided students request extensions at least 3 days prior to the assignment due date*. Late submissions without prior permission will be penalized.

### **Academic Integrity Policy**

Discussion and the exchange of ideas are essential to academic work. For assignments in this course, you are encouraged to consult with your classmates on the choice of paper topics and to share sources. You may find it useful to discuss your chosen topic with your peers, particularly if you are working on the same topic as a classmate. However, you should ensure that any written work you submit for evaluation is the result of your own research and writing and that it reflects your own approach to the topic. You are encouraged to seek feedback on written assignments from instructors, classmates, and other campus resources (BSC, tutors, etc).

On all assignments, you must adhere to standard citation practices and properly cite any books, articles, websites, lectures, etc. that have helped you with your work. "Alternative facts" are not acceptable.

### **Schedule:**

#### **Week 1 – Course introduction**

(1/24) Class

#### **Week 2 – Setting the stage for *Homo sapiens*: evolutionary context**

(1/31) Class    Response paper opportunity

#### **Week 3 – Biological and behavioral markers of modern humans**

(2/7) Class    Collections Analysis: distinguishing fossil hominins  
Response paper opportunity

#### **Week 4 – Africa first: stones and bones of the earliest *Homo sapiens***

(2/14) Class    Collections analysis report due

#### **Week 5 – Understanding dispersals**

(2/21) Class    News & Views draft due

### **Week 6 – Initial dispersals within and out of Africa**

(2/28) Class    Response paper opportunity

(3/3)            News & Views final version due

### **Week 7 – Africa 70,000-50,000 years ago**

(3/7) Class    Response paper opportunity

### **Week 8 – NO CLASS Spring Break**

### **Week 9 – Out of Africa and into Australia**

(3/21) Class    Response paper opportunity

### **Week 10– NO CLASS Paleoanthropology Society Meetings/SAA**

(3/28)            News & Views 2 due (if chosen)

### **Week 11 – Meeting the locals: Neanderthals, Denisovans, and other humans**

(4/4) Class    Collections analysis 2: Are tools diagnostic of species?  
Response paper opportunity

### **Week 12 – Human occupation of Eurasia: biological and archaeological evidence**

(4/11) Class    Collections analysis 2 report due

### **Week 13 – Colonizing the globe with a trail of extinctions**

(4/18) Class    Response paper opportunity

### **Week 14 – Modern humans everywhere**

(4/25) Class    Response paper opportunity

**Final response paper due Friday May 12th at midnight.**