

# W. Andrew Barr - Curriculum Vitae

Center for the Advanced Study of Human Paleobiology  
Department of Anthropology  
The George Washington University

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## Education

PhD - 2014 - University of Texas at Austin. Anthropology.  
MA - 2008 - University of Texas at Austin. Anthropology.  
BS - 2005 - Tulane University. Anthropology, French.

## Academic Appointments

**Postdoctoral Scientist.** Center for the Advanced Study of Human Paleobiology. Department of Anthropology. The George Washington University. Advisor: Bernard Wood. 2014 - Present.  
**Instructor.** Center for the Advanced Study of Human Paleobiology. Department of Anthropology. The George Washington University. 2015.  
**Research Associate.** Department of Paleobiology. Smithsonian National Museum of Natural History. 2014 - Present.

## Peer Reviewed Publications

### Accepted

Barr, WA. Paleoenvironments of the Shungura Formation based on ecomorphology of the bovid astragalus. *Journal of Human Evolution*.

### 2014

Barr, WA. Functional Morphology of the Bovid Astragalus In Relation To Habitat: Controlling Phylogenetic Signal In Ecomorphology. *Journal of Morphology*. 275:1201-1216. doi:10.1002/jmor.20279  
Barr, WA and Scott, RS. Phylogenetic comparative methods complement discriminant function analysis in ecomorphology. *American Journal of Physical Anthropology*. 153:663-674. doi:10.1002/ajpa.22462  
Scott, RS and Barr, WA. Ecomorphology and phylogenetic risk: implications for habitat reconstruction using fossil bovids. *Journal of Human Evolution*. 73:47-57. doi:10.1016/j.jhevol.2014.02.023

### 2010

Reed, DN, and Barr, WA. A preliminary account of the rodents from Pleistocene levels at Grotte des Contrebandiers (Smuggler's Cave), Morocco. *Historical Biology*. 22:286-294. doi:10.1080/08912960903562192

## Funding and Awards

### 2014

Travel Grant - Paleoanthropology Society for meetings in Calgary. \$500

### 2013

Named Continuing Fellowship - UT Austin Graduate School. \$29,000  
Pollitzer Student Travel Award - American Association of Physical Anthropologists. \$500

### 2012

Dissertation Fieldwork Grant - Wenner-Gren Foundation. \$13,317.

**2008**

Professional Development Award - Dept. of Anthropology, UT Austin. Also recieved in 2009-2011.

**2007**

Graduate Research Fellowship - National Science Foundation. \$90,000

Liberal Arts Graduate Research Fellowship - UT Austin.

Student Prize - Texas Association of Biological Anthropologists.

David Bruton, Jr. Graduate Fellowship - UT Austin. Also received in 2008.

## Professional Preparation

Research Associate & Software Developer. PaleoCore Project. I am a key member of this NSF Funded project, which aims to create a data-standard for physical anthropology. I contributed heavily to the development of PaleoCore informatics tools for data sharing. 2012 - Present.

Observer. Evolution of Terrestrial Ecosystems Working Group. National Museum of Natural History. 2015

Participant. AnthroTree Workshop in Phylogenetic Methods. Amherst, MA. 2011.

Research Assistant. eSkeletons.org and eFossils.org. PI: John Kappelman. 2010, 2011.

## Teaching Experience

*Analytical Methods in Evolutionary Anthropology.* I designed and taught this course for all first-and second-year graduate students in the CASHP program at GWU. This course covered applied statistical methods (e.g, regression, ANOVA and related techniques, categorical data analysis, resampling approaches) and the R statistical programming language. Spring 2015

*Introduction to Physical Anthropology.* Head Teaching Assistant. UT Austin. 2010, 2012.

*GIS and Remote Sensing for Archaeology and Paleontology.* Teaching Assistant. UT Austin. 2010.

*Human Variation.* Teaching Assistant. UT Austin. 2009.

*Introduction to Physical Anthropology.* Teaching Assistant. UT Austin. 2006, 2007, 2011.

## Fieldwork Experience

Mille-Logya Research Project, Afar Region, Ethiopia. PI: Zeresenay Alemseged. I am a member of the scientific team conducting research to recover new fossil evidence of human evolution from this Plio-Pleistocene site. 2014.

Great Divide Basin Project, Wyoming. PI: Robert Anemone. Collected primate and mammalian fossils from Eocene sediments, and prospected for new localities. 2013.

Dikika Research Project, Afar Region, Ethiopia. PI: Zeresenay Alemseged. Surface collection of Plio-Pleistocene hominin and mammalian fossils. Managed GIS data collection with hand-held computers and high-precision GPS base station. 2010, 2012.

Dalquest Research Site, Big Bend Region, Texas. PI: E. Chris Kirk. Surface collected primate and mammalian fossils in the Devil's Graveyard Formation. (Eocene: Late Uintan). 2007, 2008, 2010.

Contrebandiers Cave, Temara, Morocco. PI: Harrold Dibble & Utsav Schurmans. Excavated site preserving Middle Stone Age archaeology (Aterian) and hominin remains. Performed systematic analysis of rodent fauna. 2009.

## Scholarly Presentations

### Published Abstracts from Conference Presentations

**2015**

Barr, WA and Dunn, RH. A method for analyzing complex joint surfaces in ecomorphology using slope rasters derived from Digital Elevation Models. American Association of Physical Anthropology.

Thompson, JC, McPherron SP, Bobe R, Barr, WA, Reed D, Wynn J, Marean CW, and Alemseged, Z. Taphonomy of fossils from the hominin-bearing deposits at Dikika, Ethiopia. *Paleoanthropology Society*.

#### 2014

Barr, WA. Paleoenvironments of the Hadar and Shungura Formations: Synthesizing multiple lines of evidence using bovid ecomorphology. *American Association of Physical Anthropology*.

Kemp, A and Barr, WA. Rates of homoplasy in the mammalian skeleton. *American Association of Physical Anthropology*.

#### 2013

Barr, WA. Ecomorphology of the bovid astragalus: body size, function, phylogeny and paleoenvironmental reconstruction. *American Journal of Physical Anthropology*. 150:74.

#### 2012

Barr, WA. Ecomorphology in a phylogenetic statistical context: a case study using the bovid femur. *American Journal of Physical Anthropology*. 147:90-91.

Scott, RS and Barr, WA. Ecomorphology and phylogeny among the Bovidae: implications for habitat reconstruction. *American Journal of Physical Anthropology*.

Kappelman, JK, Keane P, Reed D, Tenbarger J, Witzel A, Barr WA, Nachman BA, Russo GA. eFossils.org: a collaborative website and community database for the study of human evolution. *American Journal of Physical Anthropology*.

#### 2011

Reed DN, McPherron S, Barr WA, Alemseged Z, Bobe R, Geraads D, and Wynn J. A new GPS data collection methodology and data schema for integrating multiple project databases: examples from the Dikika Research Project geodatabase. *American Journal of Physical Anthropology*. 144:249-250.

#### 2009

Barr, WA & Reed, DN. Coping with taxonomic ambiguity and inter-observer variation in paleontological and paleoanthropological analyses. *American Journal of Physical Anthropology*. 144:249-250.

Toborowsky, CJ & Barr, WA & Lewis, RJ. Does environmental unpredictability drive lemur life histories? *American Journal of Physical Anthropology*.

#### 2008

Barr, WA. The effects of allometric scaling patterns on the template method for estimating dimorphism. *American Journal of Physical Anthropology*.

### Scholarly Presentations Without Published Abstracts

#### 2013

Barr, WA, Brett Nachman, Liza Shapiro. The Academic Phylogeny of Physical Anthropology. Annual Meetings of the Texas Association for Biological Anthropologists. Austin, TX.

Reed D, Barr, WA, Urban T. TFree as in speech and beer: open source software solutions for spatial data management in physical anthropology. Annual Meetings of the Texas Association for Biological Anthropologists. Austin, TX.

#### 2012

Barr, WA. Refining hominin paleoenvironmental reconstructions using bovid ecomorphology: the role of phylogenetic comparative methods. Presentation at UT Austin Paleontology Brown-Bag Seminar Series.

Barr, WA. Refining hominin paleoenvironmental reconstructions with bovid ecomorphology. Presentation at UT Austin Informal Physical Anthropology Seminar series.

#### 2011

Barr, WA. Ecomorphology in a phylogenetic statistical context: a case study using the bovid femur. Annual Meetings of Texas Association for Biological Anthropologists. San Marcos, TX.

**2010**

Barr, WA. Pattern or chaos? Exploring a null model of faunal turnover patterns. Annual Meetings of Texas Association for Biological Anthropologists. Waco, TX.

Barr, WA. Quantitative ecomorphology of mammalian dentitions: Refining a tool for reconstructing early hominin paleoenvironments. Presentation at UT Austin Informal Physical Anthropology Seminar series.

**2008**

Barr, WA. Coping with taxonomic ambiguity and inter-observer variation in paleontological and paleoanthropological analyses. Annual Meetings of Texas Association for Biological Anthropologists. College Station, TX.

**2007**

Barr, WA. The effects of allometric scaling patterns on the template method for estimating dimorphism. Annual Meetings of Texas Association for Biological Anthropologists. Austin, TX.

**Invited Talks and Guest Lectures****2013**

Data reshaping and advanced plotting with ggplot2. Guest Lecture for Denné Reed in graduate-level Statistical Methods course at UT Austin.

Guest Lecture for E. Christopher Kirk on Eocene Primate evolution for the Introduction to Physical Anthropology course.

**Professional Service**

Academic Phylogeny of Physical Anthropology - In collaboration with Liza Shapiro and Brett Nachman, I created this website as a public resource that tracks academic lineages of Physical Anthropology PhDs. The site has had over 1700 user submissions. 2013.

Volunteer, Explore UT - University wide K-12 educational open house. Helped organize and run activity "Leaping Lemurs of Madagascar" on locomotion and conservation of lemurs. 2010, 2011.

Reviewer - University of Texas Liberal Arts Graduate Research Fellowship. Evaluated grant proposals from students competing for \$50,000 in grant funds. 2008.

Coordinator - Informal Physical Anthropology Seminar Series, UT Austin. Responsible for planning weekly seminars and recruiting speakers. 2008.

**Manuscript Reviews**

Journal of Human Evolution. 2014, 2015.

Methods in Ecology and Evolution. 2012.

International Journal of Primatology. 2014.

Manning Publications (book proposal review). 2012.

**Professional Memberships**

American Association of Physical Anthropologists

Paleoanthropology Society