

Adam D. Gordon

Curriculum Vitae

Department of Anthropology
University at Albany - SUNY
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Academic Positions

Assistant Professor, Department of Anthropology, University at Albany - SUNY (*Fall 2008-Present*)
Postdoctoral Research Fellow, Center for the Advanced Study of Hominid Paleobiology, Department of Anthropology, The George Washington University (*Fall 2004-Summer 2008*)

Research Interests

- Sex-specific variation in life history parameters due to ecological effects in living primate populations
- Relative contributions of sexual selection and natural selection on sex-specific patterns of size, shape, growth, and scaling in human and primate evolution
- Monte Carlo and exact resampling approaches to assessing size and shape variation in the hominin fossil record
- Phylogenetic comparative methods as applied to the evolution of size, shape, and energetics in mammals, particularly the Order Primates and Tribe Hominini

Education

Ph.D., 2004, Anthropology, The University of Texas at Austin

Dissertation: Evolution of body size and sexual size dimorphism in the Order Primates: Rensch's rule, quantitative genetics, and phylogenetic effects

Committee: John Kappelman, Claud Bramblett, William Jungers, Deborah Overdorff, Eric Pianka

M.A., 1999, Anthropology, The University of Texas at Austin

Thesis: Sex-specific patterns in the allometric scaling of articular surface area in *Papio cynocephalus* ssp.

B.S. cum laude, 1995, Individual Studies: Paleoanthropology, University of Maryland College Park

Peer-reviewed Publications

2012. O'Mara MT, **Gordon AD**, Catlett KK, Terranova CJ, Schwartz GT. Growth and the development of sexual size dimorphism in lorises and galagos. *American Journal of Physical Anthropology*. 147:11-20.
2011. Raichlen DA, **Gordon AD**. Relationship between exercise capacity and brain size in mammals. *PLoS ONE*. 6:e20601.
2011. Raichlen DA, **Gordon AD**, Sechrest W. Bioenergetic constraints on primate abundance. *International Journal of Primatology*. 32:118-133.
2011. Sherwood CC, **Gordon AD**, Allen JS, Phillips KA, Erwin JM, Hof PR, Hopkins WD. Aging of the cerebral cortex differs between humans and chimpanzees. *Proceedings of the National Academy of Sciences USA*. 108:13029-13034.
2010. Griffin NL, D'Août K, Richmond B, **Gordon A**, Aerts P. Comparative *in vivo* forefoot kinematics of *Homo sapiens* and *Pan paniscus*. *Journal of Human Evolution*. 59:608-619.
- 2010a. Raichlen DA, **Gordon AD**, Harcourt-Smith WEH, Foster AD, Haas Jr. WR. Laetoli footprints preserve earliest direct evidence of human-like bipedal biomechanics. *PLoS ONE*. 5:e9769.

- 2010b. Raichlen DA, **Gordon AD**, Muchlinski MN, Snodgrass JJ. Causes and significance of variation in mammalian basal metabolism. *Journal of Comparative Physiology B*. 180:301-311.
2010. Williams EMS, **Gordon AD**, Richmond BG. Upper limb kinematics and the role of the wrist during stone tool production. *American Journal of Physical Anthropology*. 143:134-145.
2009. Faith JT, Domínguez-Rodrigo M, **Gordon AD**. Long-distance carcass transport at Olduvai Gorge? A quantitative examination of Bed I skeletal element abundances. *Journal of Human Evolution*. 56:247-256.
- 2008a. **Gordon AD**, Green DJ, Richmond BG. Strong postcranial size dimorphism in *Australopithecus afarensis*: results from two new multivariate resampling methods for multivariate data sets with missing data. *American Journal of Physical Anthropology*. 135:311-328.
- 2008b. **Gordon AD**, Nevell L, Wood B. The *Homo floresiensis* cranium (LB1): Size, scaling, and early *Homo* affinities. *Proceedings of the National Academy of Sciences USA*. 105:4650-4655.
2008. Green DJ, **Gordon AD**. Metacarpal proportions in *Australopithecus africanus*. *Journal of Human Evolution*. 54:705-719.
2008. Griffin N, **Gordon AD**, Richmond BG, Antón SC. Cross-sectional geometric analysis of a foot bone assemblage from Mangaia, Cook Islands. *HOMO—Journal of Comparative Human Biology*. 59:27-40.
2007. Green DJ, **Gordon AD**, Richmond BG. Limb joint size proportions in *Australopithecus afarensis* and *Australopithecus africanus*. *Journal of Human Evolution*. 52:187-200.
2007. Faith JT, **Gordon AD**. Skeletal element abundances in archaeofaunal assemblages: Economic utility, sample size, and assessment of carcass transport strategies. *Journal of Archaeological Science*. 34:872-882.
- 2006a. **Gordon AD**. Scaling of size and dimorphism in primates I: Microevolution. *International Journal of Primatology*. 27:27-61.
- 2006b. **Gordon AD**. Scaling of size and dimorphism in primates II: Macroevolution. *International Journal of Primatology*. 27:63-105.
2006. Skinner M, **Gordon AD**, Collard NJ. Mandibular size and shape variation in the hominins at Dmanisi, Republic of Georgia. *Journal of Human Evolution*. 51:36-49.
2005. Johnson SE, **Gordon AD**, Stumpf RM, Overdorff DJ, Wright P. Morphological variation in populations of *Eulemur albocollaris* and *E. fulvus rufus*. *International Journal of Primatology*. 26:1399-1416.
2003. Kappelman J, Rasmussen DT, Sanders WJ, Feseha M, Bown T, Copeland P, Crabaugh J, Fleagle J, Glantz M, **Gordon A**, Jacobs B, Maga M, Muldoon K, Pan A, Pyne L, Richmond B, Ryan T, Seiffert ER, Sen S, Todd L, Wiemann MC, Winkler A. Oligocene mammals from Ethiopia and faunal exchange between Afro-Arabia and Eurasia. *Nature*. 426:549-552.

Research Funding, Awards, and Honors

- 2012 Wenner-Gren Hunt Postdoctoral Fellowship, \$40,000, Project: New Approaches for Studying Hominin Size Evolution: Retrieving the Ecological Signal in Australopithecus Dimorphism
- 2009-2012 University at Albany Faculty Research Awards Program Grant, \$10,000, Project: Modeling Primate Body Size and Population Density Response to Ecological Factors: Data Collection in Two Potential Long-Term Field Sites in Southeast Madagascar
- 2007-2012 NSF Grant BCS-0647557, \$118,726, Project: Postcranial Dimorphism in Primates (PI: J. Michael Plavcan, Co-PIs: Adam Gordon (\$12,162), Michael Lague, and Jackson Cothren)
- 2006-2008 Mathers Foundation Grant, \$75,000, Project: Online Human Origins Database (PI: Bernard Wood, Senior Personnel: Adam Gordon)
- 2003-2004 Homer Lindsey Bruce Fellowship, The University of Texas at Austin

- 2002 NSF Dissertation Improvement Grant, \$10,804, Project: Causes of sexual size dimorphism in Primates (PI: John Kappelman, Co-PI: Adam Gordon)
- 2001-2002 University Fellowship, The University of Texas at Austin
- 2001 Sherwood Washburn Award, 70th Meeting of the American Association of Physical Anthropologists, Poster: “Sexual size dimorphism in primates: Consideration of relative variation between sexes”
- 1999 Liberal Arts Graduate Research Fellowship, College of Liberal Arts, The University of Texas at Austin
- 1999-2003 Professional Development Awards (5), University of Texas Office of Graduate Studies
- 1999-2000 University Fellowship, The University of Texas at Austin
- 1997-1998 Preemptive University Fellowship, The University of Texas at Austin
- 1995 Election to Phi Beta Kappa, University of Maryland College Park

Courses Taught

Undergraduate:

- Introduction to Human Evolution: S2009, F2009, S2010, F2010, F2011
- Primate Evolutionary Biology: F2008, F2009, F2010, F2011
- Introduction to Physical Anthropology (Laboratory portion): F1998, S1999, F2000, S2002, S2003
- Human Origins and Evolution (Laboratory portion): S2001

Graduate:

- Comparative Socioecology: Humans and Non-Human Primates: S2011
- Advanced Quantitative Methods in Anthropology: S2005, S2010, S2011
- Primate Evolutionary Biology: Body Size: S2009
- Statistical and Methodological Approaches to Paleoecology: S2006
- Independent Study, Statistical Programming and Monte Carlo Approaches in R: S2007
- Independent Study, Basic Biostatistics: F2007

Multimedia Publications

1999. Kappelman J, Scott RS, Bramblett C, **Gordon AD**, Ryan TM. Genetics and Evolution of Human Populations. In: *Virtual Laboratories for Physical Anthropology on CD ROM* (J. Kappelman, editor), Second Edition. Wadsworth Publishing Co.
1999. Kappelman J, Scott RS, Bramblett C, Ryan TM, **Gordon AD**. The Archaeological Record. In: *Virtual Laboratories for Physical Anthropology on CD ROM* (J. Kappelman, editor), Second Edition. Wadsworth Publishing Co.

Other Publications

2011. Wood B, ed. *Wiley-Blackwell Encyclopedia of Human Evolution*. Adam Gordon: Topic editor for quantitative methods entries.

Published Abstracts

2011. **Gordon AD**, Wood B. The role of comparative databases in paleoanthropology research. *American Journal of Physical Anthropology Supplement*. 52:146.
2011. Johnson SE, **Gordon AD**, Raichlen DA, Tecot S, Holmes SM, Ingraldi C, Verdolin JL. Search strategies in frugivorous lemurs in southeastern Madagascar: are Lévy walks used? *American Journal of Primatology* 73 (Supplement 1):59.
2011. Richmond BG, Hatala KG, Harcourt-Smith WEH, Rossi V, Metallo A, Liutkus CM, Pobiner BL, **Gordon A**, Dingwall H, Green D, Zimmer B, Moita O, Brett J. Early modern human footprint assemblage from Engare Sero, Tanzania. *PaleoAnthropology*. 2011:A31.

2011. Rolian C, **Gordon AD**, Hallgrímsson B. Assessing manual proportions in *Australopithecus afarensis* using Monte Carlo resampling. *American Journal of Physical Anthropology* Supplement. 52:256.
2011. Williams EM, **Gordon AD**, Richmond BG. Achieving efficiency and accuracy in Oldowan stone tool production. *American Journal of Physical Anthropology* Supplement. 52:312.
2010. **Gordon AD**. Femoral, skeletal, and body mass size variation: relationships and implications for sexual dimorphism studies. *American Journal of Physical Anthropology* Supplement. 50:113-114.
2010. Schroer KE, **Gordon AD**, Richmond BG. How long were australopithecine toes? *American Journal of Physical Anthropology* Supplement. 50:209.
2009. **Gordon AD**. Anthropoid body mass dimorphism: effects of taxonomic scale. *American Journal of Physical Anthropology* Supplement. 48:136.
2009. Griffin NL, Richmond BG, D’Août K, **Gordon AD**, Aerts P. Comparative forefoot form and function in *Homo sapiens* and *Pan*: joint orientation and in vivo kinematics. *American Journal of Physical Anthropology* Supplement. 48:139-140.
2009. Plavcan JM, **Gordon A**, and Lague M. Comparative analysis of 3-D measures of postcranial dimorphism in primates. *American Journal of Physical Anthropology* Supplement. 48:212-213.
2009. Raichlen DA, **Gordon AD**, Muchlinski M, Snodgrass JJ. Variation in primate basal metabolism: explanations and ecological implications. *American Journal of Physical Anthropology* Supplement. 48:216.
2009. Williams EM, **Gordon AD**, Richmond BG. Wrist and upper limb kinematics of amateur knappers during stone tool production. *American Journal of Physical Anthropology* Supplement. 48:272.
2008. Hamm KM, **Gordon AD**, McCarthy RC, Lucas L, Strait DS. Metric variation in the genus *Homo*. *American Journal of Physical Anthropology* Supplement. 46:112.
2007. Green DJ, **Gordon AD**. Metacarpal proportions in *Australopithecus africanus*. *American Journal of Physical Anthropology* Supplement. 44:119.
2007. Plavcan JM, **Gordon AD**. Craniodental versus postcranial variables as estimators of size dimorphism in extinct taxa. *American Journal of Physical Anthropology* Supplement. 44:190.
2007. **Gordon AD**, Wood B. Human Origins Database (HOD): managing published data and specimen information for fossil and comparative collections. *American Journal of Physical Anthropology* Supplement. 44:117.
2007. Faith JT, Domínguez-Rodrigo M, **Gordon AD**. Long distance carcass transport at Olduvai Gorge? *PaleoAnthropology*. 2007:A8.
2007. Faith JT, **Gordon AD**. Skeletal element abundances in archaeofaunal assemblages: economic utility, sample size, and carcass transport strategies. *Society for American Archaeology*.
2007. Nevell L, **Gordon A**, Wood B. *Homo floresiensis* and *Homo sapiens* size-adjusted cranial shape variation. *American Journal of Physical Anthropology* Supplement. 44:178.
2006. **Gordon AD**, Green DJ, Richmond BR. Size dimorphism in *Australopithecus afarensis*, modern humans, and the great apes: a non-template multivariate comparison. *American Journal of Physical Anthropology* Supplement. 42:94.
2006. Green DJ, **Gordon AD**, Richmond BR. Limb joint size proportions in *Australopithecus afarensis* and *Australopithecus africanus*. *American Journal of Physical Anthropology* Supplement. 42:95.
2005. **Gordon AD**. Body size dimorphism: do not correct for size. *American Journal of Physical Anthropology* Supplement. 40:108.
2004. **Gordon AD**. Selective forces and size change in the evolution of sexual size dimorphism in Primates. *American Journal of Physical Anthropology* Supplement. 38:102.
2003. **Gordon AD**. Evaluating the effects of sexual selection on sexual size dimorphism in olive baboons (*Papio anubis*) and macaques (*Macaca* sp.) using an iterative selection model. *American Journal of Primatology* Supplement. 60:52-53.

2003. **Gordon AD.** Size matters – does body mass? *American Journal of Physical Anthropology* Supplement. 36:102.
2002. **Gordon AD.** Increasing population sample sizes using global skeletal size variables. *American Journal of Physical Anthropology* Supplement. 34:77.
2002. Johnson S, **Gordon A**, Stumpf R. Sexual dimorphism and testicle size in white-collared lemurs. *American Journal of Physical Anthropology* Supplement. 34:90-91.
2002. Ketcham R, Ryan T, Maga M, **Gordon A**. Quantification of anisotropy in trabecular bone fabrics. *American Journal of Physical Anthropology* Supplement. 34:93-94.
2001. **Gordon AD.** Sexual size dimorphism in primates: Consideration of relative variation between sexes. *American Journal of Physical Anthropology* Supplement. 32:72.
2000. **Gordon AD.** Sex-specific estimators of body mass. *American Journal of Physical Anthropology* Supplement. 30:163.
2000. Kappelman J, Ryan T, Zylstra M, Alport L, DeOliveira M, **Gordon A**, Maga M, Scott R. eSkeletons: A web-based platform for learning anatomical form and function. *American Journal of Physical Anthropology* Supplement. 30:192.
1999. **Gordon AD.** Allometric scaling of articular surface areas in *Papio anubis*. *American Journal of Physical Anthropology* Supplement. 28:138.
1999. Kappelman J, **Gordon A**, Johnson D, Ryan T, Scott R, Seiffert E. A computer program for delivering virtual multimedia examinations across secure networks and the web. *American Journal of Physical Anthropology* Supplement. 28:164.
1998. Kappelman J, Bramblett C, Feseha M, **Gordon A**, McCardel K, Pearlstein J, Ryan T, Scott R, Seiffert E, Tecot S, Weiner G. Using the computer for interactive testing: a multimedia application in primatology. *American Journal of Primatology*. 45:189-190.
1998. Kappelman J, Bramblett C, **Gordon A**, McCardel K, Ryan T, Scott R, Seiffert E, Weiner G. Virtual multimedia examinations: Integrating images, video, and animations into an interactive testing program. *American Journal of Physical Anthropology* Supplement. 26:132-133.

Invited Presentations/Workshops

- Body size in human evolution: quantification, sexual selection, and ecological effects. *New York University, Department of Anthropology, Feb. 3, 2011.*
- Ecological stress and sexual selection: reconstructing selective pressures on body size variation in human evolution. *The George Washington University, Department of Anthropology, Jan. 31, 2011.*
- Morphological affinities of LB1: using quantitative methods to understand hominin evolution. *Rutgers University, Apr. 22, 2010.*
- Invited participant, Sterkfontein Hominin Postcrania Workshop, University of the Witwatersrand, Johannesburg, South Africa, Jan. 5-9, 2010.*
- “Descent of Man”: Darwin and the sister lineages of *Homo sapiens* and *Homo floresiensis*. *Keynote Address, 2nd Annual Conference of the Anthropology Graduate Student Association, University of Texas at Austin, Apr. 17, 2009.*
- “Descent of Man”: the sister lineages of *Homo sapiens* and *Homo floresiensis*. *University of Arizona, Feb. 20, 2009, and University at Albany Darwin Day, Feb. 13, 2009.*
- Scale and selection pressures in the evolution of anthropoid body size dimorphism. *XXIInd Congress of the International Primatological Society, Edinburgh, Scotland, Aug. 6, 2008.*
- The influence of mating system and resource pressure on human evolution. *University at Albany, Feb. 28, 2008, and Michigan State University, Feb. 14, 2008.*
- Sexual selection, natural selection, and size change: evolution of sex-specific size differences in living and fossil primates. *Arizona State University, School of Human Evolution and Social Change Colloquium Series, Feb. 1, 2008.*

- Sexual size dimorphism in *Australopithecus*: current understanding and new directions. Paper submitted as part of *Diversity in Australopithecus Workshop, Turkana Basin Institute, Stony Brook University, Sept. 25-29, 2007*.
- Australopithecus afarensis* and *Homo floresiensis*: two case studies in size and shape variation in the Hominini. *University of Texas at Austin, Apr. 27, 2007*.
- New approaches to measuring variation in the hominin fossil record. *University at Albany, Nov. 10, 2006*.
- Comparative models for biological response to climate: how can we represent modern data as paleodata? *Paleoclimates and Human Evolution Workshop, Front Royal, Virginia, Nov. 18, 2005*.
- Causes of primate dimorphism: a phylogenetic comparative approach to body size evolution. *Stony Brook University, Feb. 3, 2005*.
- Reconstructing selection pressures on fossil primates. *New York College of Osteopathic Medicine, May 14, 2004*.
- Selection pressures and size change: evolution of sex-specific size differences in Primates. *The George Washington University, Department of Anthropology, Feb. 17, 2004*.
- Evolution of body size and dimorphism in Primates: phylogenetic techniques and an iterative quantitative genetics model.
- *Duke University Biological Anthropology and Anatomy EvMorph Seminar Series, Oct. 1, 2003*.
 - *Yale University Anthropology Brown Beer Lecture Series, Sept. 25, 2003*.
- Evaluating the effects of sexual selection on sexual size dimorphism in olive baboons (*Papio anubis*) and macaques (*Macaca* sp.) using an iterative selection model. *Graduate Student Symposium on Sexual Selection, American Society of Primatologists, July 31, 2003*.
- Statistical approaches in physical anthropology research: using research questions to select statistical techniques. *Guest Lecturer, University of Texas Anthropology Graduate Course "Field Methods in Primatology", Nov. 6, 2002*.

Field and Museum Experience

- National Museum of Natural History, Smithsonian: Human long bone morphometrics, *Jan. 2012*
- Dalquest Research Station, West Texas: Eocene fossil fieldwork, *Jan. 2005, 2006, 2008, 2011*
- Powell-Cotton Museum, Birchington, UK: Cercopithecoid long bone 3D surface scans, *Jul. 2010*
- Kianjavato Ahmanson Field Station, Madagascar: *Varecia variegata* behavioral ecology, *Jun. 2010*
- University of the Witwatersrand and the Transvaal Museum, South Africa: Australopith skeletal morphometrics, *Jan. 2010*
- Powell-Cotton Museum, Birchington, UK: Gorilla specimens annotated inventory detailing skeletal age markers, pathologies, *in vivo* trauma, and *post mortem* damage, *Nov.-Dec. 2007*
- Powell-Cotton Museum, Birchington, UK: Chimpanzee specimens annotated inventory detailing skeletal age markers, pathologies, *in vivo* trauma, and *post mortem* damage, *Nov.-Dec. 2006*
- Duke University Primate Center: Strepsirhine body mass (records search), *Fall 2003*
- Yale Peabody Museum Large Mammal Collection: Large mammal postcranial morphometrics, *Fall 2003*
- Harvard Museum of Comparative Zoology: Bat postcranial morphometrics, *Fall 2003*
- American Museum of Natural History, New York; National Museum of Natural History, Smithsonian; Cleveland Museum of Natural History; Harvard Museum of Comparative Zoology; Bramblett Baboon Collection, University of Texas at Austin; Powell-Cotton Museum, Birchington, UK; Anthropological Institute and Museum, Zurich; Royal Museum of Central Africa, Tervuren, Belgium: Primate postcranial morphometrics, *Summer 2002-Spring 2003*
- Anthropological Institute and Museum, Zurich: Primate postcranial morphometrics, *Feb. 2002*
- Chilga and Shinfa, Ethiopia: Paleontological and archaeological surveying, *Jan. 2002*
- Powell-Cotton Museum, UK: African ape postcranial morphometrics, *Summer 2000*

- Bramblett Baboon Collection, University of Texas at Austin: Baboon postcranial articular morphometrics and laser scanning, *Spring 1999*
- Glacier National Park: Paleomagnetic sampling, *Summer 1998*

Professional Service (Discipline)

- 2010-Present Panel Member, National Science Foundation
- 2004-Present Reviewer for:
- *American Journal of Physical Anthropology*
 - *Evolutionary Anthropology*
 - *International Journal of Primatology*
 - *Journal of Human Evolution*
 - *Journal of Theoretical Biology*
 - *Nature Education*
 - *Primates*
 - National Science Foundation (Senior Grants)
- *American Journal of Primatology*
 - *Geobios*
 - *Journal of Anatomy*
 - *Journal of Mammalogy*
 - *Nature*
 - *PLoS ONE*

Professional Service (Institution)

- 2011-Present Committee Member, Graduate Affairs Committee, Department of Anthropology, University at Albany
- 2010 Committee Member, Undergraduate Affairs Committee, Department of Anthropology, University at Albany
- 2009-2010 Coordinator, Department of Anthropology Speaker Series, University at Albany
- 2008-Present Coordinator, Paleoanthropology and Primatology Journal Club, Department of Anthropology, University at Albany
- 2000-2003 Committee Member, Liberal Arts Graduate Research Fellowship Selection Committee, University of Texas at Austin
- 1998-2000 Student Representative, Graduate Studies Committee for the Department of Anthropology, University of Texas at Austin
- 1999 Coordinator, Physical Anthropology Lecture Series at the University of Texas at Austin

Ph.D. Committees

- Kristopher Burnitz, University at Albany (in progress)
- Paul Constantino, The George Washington University (2007)
- Gail Hughes-Morey, University at Albany (in progress)
- Jordan Karsten, University at Albany (in progress)
- Justin Ledogar, University at Albany (in progress)
- Jana Makedonska, University at Albany (in progress)
- Keenya Oliver, University at Albany (in progress)
- Amanda Smith, University at Albany (in progress)
- Amanda Spriggs (Chair), University at Albany (in progress)
- Kelli Tamvada, University at Albany (in progress)
- Erin Marie Williams, The George Washington University (2011)
- Kiersten Westbrook, University at Albany (in progress)

M.A. Committees

- Bianca Englese, University at Albany (2010)
- Julie Ferguson (Chair), University at Albany (in progress)
- Jasmine Munk, University at Albany (2009)

Mwaka Nachilongo, University at Albany (2010)

Kyrie Nelder, University at Albany (2010)

Software/Computer Resource Development

- *Human Origins Database*, an online database of fossil hominin and extant hominoid morphometrics (www.humanoriginsdatabase.org) funded by the Mathers Charitable Foundation (PI: Bernard Wood)
- Code for customized statistical analyses in the statistical programming environment *R*
- *Virtual Exams*, a software package for preparing and administering exams with multimedia content, funded by the National Science Foundation (PI: John Kappelman)
- *Virtual Laboratories for Physical Anthropology on CD ROM*, a computer-based multimedia introductory laboratory course for physical anthropology, funded by the NSF (PI: John Kappelman)

Professional Memberships

- American Association of Physical Anthropologists
- American Society of Primatologists
- International Primatological Society