

# Lucas K. Delezene

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Department of Anthropology  
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## PROFESSIONAL INTERESTS

Human evolution, primate evolution, morphological integration, canine honing, primate diets, dental functional morphology, dental microwear analysis.

## EDUCATION

- 2011        Doctor of Philosophy in Anthropology, Arizona State University Dissertation Title:  
*Morphological Integration and the Anthropoid Dentition*
- 2005        Master of Arts in Anthropology, Arizona State University
- 2000        Bachelor of Science in Anthropology and Biology (double major), Emory  
University

## APPOINTMENTS

- 2015 –        *Assistant Professor*, Department of Anthropology, University of Arkansas
- 2014 –        *Honorary Research Fellow*, Evolutionary Studies Institute, University of the  
Witwatersrand.
- 2011 – 2014   *Instructor*, Department of Anthropology, University of Arkansas.

## GRANTS AND FELLOWSHIPS

- 2017        Honors College Mentor Award (\$500).
- 2016        Student Undergraduate Research Fellowship (\$3250 for student; \$750 for advisor)  
to Christian Tyler Thompson
- 2016        Student Undergraduate Research Fellowship (\$3250 for student; \$750 for advisor)  
to Sarah Jeffress.
- 2016        Honors College Faculty Equipment and Technology Grant (\$8300) (Dr. Claire  
Terhune, PI; L. Delezene and J. M. Plavcan, CoPIs)
- 2016        Wenner-Gren Foundation. The Dentition of *Homo naledi*: External and Internal  
Morphology, Growth, and Implications for Hominin Systematics and Dental  
Evolution (\$20,000). Lucas K. Delezene, PI (Matthew Skinner, Co-PI).

- 2016 University of Arkansas Summer Research Stipend (\$5000)
- 2015 – 2016 Connor Family Faculty Endowed Fellowship (\$2000)
- 2013 Leakey Foundation. Canine reduction in hominin evolution: Evidence for a shift in tooth function from dental microwear (\$20,000). Lucas K. Delezene, PI (Peter S. Ungar; J. Michael Plavcan; Mark F. Teaford, Co-PIs).
- 2010 – 2011 Dean’s Dissertation Writing Fellowship (\$15,000)
- 2009 – 2010 Dean’s Advanced Scholarship (\$20,000)
- 2009 Wenner-Gren Dissertation Fieldwork Grant (\$23,640). Coevolutionary Models and the Hominin Canine Honing Complex.
- 2009 National Science Foundation Doctoral Dissertation Improvement Grant (\$15,000).
- 2006 Graduate and Professional Student Association (GPSA) travel grant (\$300.00)
- 2005 – 2006 Graduate Fellowship, Institute of Human Origins (\$20,000).
- 2005 Department of Anthropology student research award (\$450.00).
- 2002 – 2003 Graduate Fellowship, National Science Foundation GK-12 Program, Arizona State University (\$21,400).

## PEER-REVIEWED PUBLICATIONS

- In review Guatelli-Steinberg, D., O’Hara, M., Le Cabec, A., Reid, D.J., **Delezene, L.K.**, Skinner, M.M., Berger, L.R. Patterns of lateral enamel growth in *Homo naledi* as assessed through perikymata distribution and number. Submitted to the *Journal of Human Evolution* on 10/25/2017.
- In review Irish, J.D., Bailey, S.B., Guatelli-Steinberg, D., **Delezene, L.K.**, Berger, L.R. Ancient teeth, phenetic affinities, and African hominins: Another look at where *Homo naledi* fits in. Revised manuscript submitted to the *Journal of Human Evolution* on 01/20/2018.
- In review Pampush, J.D., Scott, J.E., Robinson, C.A., **Delezene, L.K.** The hypofunction hypothesis and the origin of the human chin. Revised manuscript submitted to the *Journal of Human Evolution* on 10/25/2017.
- In press Odes, E.J., **Delezene, L.K.**, Randolph-Quinney, P.S., Jakata, K., Smilg, J.S., Berger, L.R. A case of benign osteogenic tumour in *Homo naledi*: evidence for peripheral osteoma in the U.W. 101-1142 mandible. *International Journal of Paleopathology*. Available online May 20, 2017. (<https://doi.org/10.1016/j.ijpp.2017.05.003>)

- In press Ungar, P., Abella, A., Burgman, J., Lazagabaster, I., Scott, J., **Delezene, L.K.**, Manthi, F., Plavcan, J.M., Ward, C. Dental microwear and Pliocene paleocommunity ecology of bovids, primates, rodents, and suids at Kanapoi. *Journal of Human Evolution*. Available online May 9, 2017. (doi.org/10.1016/j.jhevol.2017.03.005)
- 2018 Berthaume, M.A., **Delezene, L.K.**, Kupczik, K. Dental topography and the diet of *Homo naledi* *Journal of Human Evolution* 118: 14–26.
- 2017 Garvin, H., Elliott, M., **Delezene, L.K.**, Hawks, J., Churchill, S., Berger, L., Holliday, T. Body size, brain size, and sexual dimorphism in *Homo naledi*. *Journal of Human Evolution* 111: 119–138.
- 2017 Hawks, J., Elliot, M., Schmid, P., Churchill, S.E., de Ruiter, D.J., Roberts, E.M., Hilbert-Wolf, H., Garvin, H.M., Williams, S.A., **Delezene, L.K.**, Feuerriegel, E.M., Randolph-Quinney, P., Kivell, T.L., Laird, M.F., Tawane, G., DeSilva, J.M., Bailey, S.E., Brophy, J.K., Meyer, M.R., Skinner, M.M., Tocheri, M.W., VanSickle, C., Walker, C.S., Campbell, T.L., Kuhn, B., Kruger, A., Tucker, S., Gurtov, A., Hlophe, N., Hunter, R., Morris, H., Peixotto, B., Ramalepa, M., vanRooyen, D., Tsikoane, M., Boshoff, P., Dirks, P.H.G.M., Berger, L.R. New fossil hominin remains of *Homo naledi* from the Lesedi Chamber, South Africa. *e-Life*: e24232.
- 2016 **Delezene, L.K.**, Teaford, M.F., Ungar, P.S. Canine and incisor microwear in pitheciids and *Ateles* reflects documented patterns of tooth use. *American Journal of Physical Anthropology* 161: 6–25.
- 2015 Berger, L. R., Hawks, J., de Ruiter<sup>1</sup>, D.J., Churchill, S.E., Schmid, P., **Delezene, L.K.**, Kivell, T., Garvin, H.M., Williams, S.A., DeSilva, J.M., Skinner, M.M., Musiba, C.M., Cameron, N., Holliday, T.W., Harcourt-Smith, W., Ackermann, R., Bastir, M., Bogin, B., Bolter, D., Brophy, J., Cofran, Z.D., Congdon, K.A., Deane, A.S., Dembo, M., Drapeau, M., Elliott, M., Feuerriegel, E.M., Garcia-Martinez, D., Green, D.J., Gurtov, A., Irish, J.D., Kruger, A., Laird, M.F., Marchi, D., Meyer, M.R., Nalla, S., Negash, E.W., Orr, C.M., Radovic, D., Schroeder, L., Scott<sup>1</sup>, J.E., Throckmorton, Z., Tocheri, M.W., VanSickle, C., Walker, C.S., Wei, P., Zipfel, B. A new species of the Genus *Homo* from the Dinaledi Chamber, South Africa. *e-life*: e09560.
- 2015 **Delezene, L.K.** Modularity of the anthropoid dentition: Implications for the evolution of the hominin canine honing complex. *Journal of Human Evolution* 86: 1–12.
- 2013 **Delezene, L.K.**, Zolnierz, M.A., Teaford, M.F., Kimbel, W.H., Grine, F.E., Ungar, P.S. Premolar microwear and tooth use in *Australopithecus afarensis*. *Journal of Human Evolution* 65: 282–293.

- 2011 **Delezene, L.K.**, Kimbel, W.H. Evolution of mandibular third premolar form in early *Australopithecus*. *Journal of Human Evolution* 60: 711–730.
- 2009 Kimbel, W.H., **Delezene, L.K.** “Lucy” Redux: A review of research on *Australopithecus afarensis*. *Yearbook of Physical Anthropology* 52: 2–48.
- 2007 Orr, C.M., **Delezene, L.K.**, Scott, J.E., Tocheri, M.W., Schwartz, G.T. The comparative method and the inference of venom-delivery systems in fossil mammals. *Journal of Vertebrate Paleontology* 27: 541–546.

## BOOK CHAPTERS

- In press **Delezene, L.K.**, Ungar, P.S. Hominin dental evolution. Submitted to the International Encyclopedia of Biological Anthropology on September 30, 2017.
- 2015 **Delezene, L.K.** The Hominins 1: Australopithecines and their ancestors. In Irish and Scott (eds.). *A Companion to Dental Anthropology*. New York: Wiley-Blackwell. pp. 52–66.

## INVITED TALKS

- 2017 What teeth tell us about *Homo naledi*. Presented at the Ouachita Chapter of the Arkansas Archaeological Society on November 14, 2017.
- 2017 Research on *Homo naledi*. Presented at the TEDx UofOzarks symposium on March 31, 2017.
- 2017 *Homo naledi*: A dental perspective on a new species. Presented in the Department of Anthropology, The Ohio State University, on February 10, 2017.
- 2016 Getting to the root of the problem: Dental perspectives on the evolution of *Homo naledi*. Presented to the University of Arkansas Sigma Xi chapter on November 20, 2016.
- 2016 Meet your newest ancestor: Current knowledge and future research on *Homo naledi*. Presented in the Department of Biology, University of Arkansas, on October 20, 2016.
- 2016 The Dentition of *Homo naledi*. Presented at the Hendrix College, Conway, AR on February 4, 2016.
- 2015 The Dentition of *Homo naledi*. Presented at the University of Nevada, Las Vegas on November 2, 2015.
- 2014 Teaching Evolution. Presented at the Teaching Religion Symposium at the University of Arkansas on October 4, 2014.

## POSTERS AND PRESENTATIONS

- 2018 Naseem, N., **Delezene, L.K.**, Ungar, P.S. Dental microwear textures of Norse and Thule individuals from Greenland. Unpublished abstract presented at the American Association of Physical Anthropologists Undergraduate Research Symposium.
- 2018 Jeffress, S., **Delezene, L.K.**, Plavcan, J.M., Teaford, M.F., Ungar, P.S. Anterior tooth use in four sympatric Sumatran primates. Unpublished abstract presented at the American Association of Physical Anthropologists Undergraduate Research Symposium.
- 2018 Bailey, S.E., **Delezene, L.K.**, Moggi-Cecchi, J., Skinner, M.M. Teeth on trial: What can dental morphology really tell us about hominin phylogeny? Submitted for presentation at the 2018 American Association of Physical Anthropologists meeting.
- 2018 Skinner, M.M., Bailey, S., Gunz, P., Kimbel, B, Alemseged, Z, **Delezene, L.K.**, Menter, C, Moggi-Cecchi, J, and Kupczik, K. Below the crown: examining interspecies variation in postcanine enamel thickness, EDJ, and root form in the *Paranthropus* clade. Submitted for presentation at the 2018 American Association of Physical Anthropologists meeting.
- 2018 Guatelli-Steinberg, D., O’Hara, M., Le Cabec, A., Reid, D.J., **Delezene, L.K.**, Skinner, M.M., Berger, L.R. Patterns of lateral enamel growth in *Homo naledi* as assessed through perikymata distribution and number. Submitted for presentation at the 2018 American Association of Physical Anthropologists meeting.
- 2017 Berthaume, M., **Delezene, L.K.**, Kupczik, K. Ecological differentiation in *Homo naledi*. Presented at the International Society of Dental Morphology.
- 2017 Davies, T.W., **Delezene, L.K.**, Gunz, P., Hublin, J.J., Skinner, M.M. Enamel-dentine junction morphology of hominin mandibular third premolars. Presented at the International Society of Dental Morphology.
- 2017 Le Cabec, A., Skinner, M.M., **Delezene, L.K.** What can anterior tooth root morphometrics tell us about *Homo naledi*? 2017 European Society of Human Evolution Meetings.
- 2017 Brophy, J. K., Bailey, S. E., Moggi-Cecchi, J., **Delezene, L. K.**, de Ruiter, D. J. A morphometric examination of *Homo naledi* deciduous teeth from Dinaledi Chamber, Rising Star cave system, South Africa. *American Journal of Physical Anthropology*, S64: 130.
- 2017 **Delezene, L. K.**, Irish, J.D., Skinner, M.W., Brophy, J., Hawks, J., Berger, L.R. Metric variation in *Homo naledi* molars. *American Journal of Physical Anthropology*, S64: 160.
- 2017 Thompson, T.C., **Delezene, L.K.**, Skinner, M.W. A comparison of mandibular third premolar shape in *Homo naledi* and other hominins. Unpublished abstract presented

at the American Association of Physical Anthropologists Undergraduate Research Symposium.

- 2016 de Ruiter, D. J., L. R. Berger, J. Hawks, S. E. Churchill, P. Schmid, **L. K. Delezene**, T. L. Kivell, H. M. Garvin, S. A. Williams, J. M. DeSilva, M. M. Skinner, C. M. Musiba, N. Cameron, T. W. Holliday, W. Harcourt-Smith, R. R. Ackermann, M. Bastir, B. Bogin, D. Bolter, J. K. Brophy, Z. D. Cofran, K. A. Congdon, A. S. Deane, M. Dembo, M. Drapeau, M. C. Elliot, E. M. Feuerriegel, D. Garcia-Martinez, D. J. Green, A. Gurtov, J. D. Irish, A. Kruger, M. F. Laird, D. Marchi, M. R. Meyer, S. Nalla, E. W. Negash, C. M. Orr, D. Radovic, L. Schroeder, J. E. Scott, Z. Throckmorton, M. W. Tocheri, C. VanSickle, C. S. Walker, P. Wei and B. Zipfel, *Homo naledi*: A new species of hominin from the Dinaledi Chamber, South Africa. 2016 Paleoanthropology Society Meeting.
- 2016 Lazagabaster, I.A., **Delezene, L.K.** Intraspecific variability in postcanine occlusal wear in early hominins and the Occlusal Wear Gradient model: Preliminary results. 2016 Paleoanthropology Society Meeting.
- 2016 **Delezene, L.K.**, Brophy, J.K., Skinner, M.M., Gurtov, A.N., Hawks, J., Irish, J.D., Berger, L.R., de Ruiter, D.J. Metric and nonmetric features of the *Homo naledi* dentition. *American Journal of Physical Anthropology* S62: 128–129.
- 2016 Skinner, M.M., Lockey, A.L., Gunz, P., Hawks, J., **Delezene, L.K.** Enamel-dentine junction morphology and enamel thickness of the Dinaledi dental collection. *American Journal of Physical Anthropology* S62: 293.
- 2016 Garvin, H.M., Elliot, M.C., **Delezene, L.K.**, Hawks J., Churchill, S.E., Berger, L.E., Holliday, T.W. Body size and sexual dimorphism in *H. naledi*. *American Journal of Physical Anthropology* S62: 152.
- 2016 Brophy, J. K., **Delezene, L. K.**, Gurtov, A. N., Hawks, J., Irish, J. D., Berger, L. R., de Ruiter, D. J. A morphometric examination of *Homo naledi* teeth from Dinaledi Chamber, Rising Star cave system, South Africa. *American Journal of Physical Anthropology* S62: 103.
- 2015 **Delezene, L.K.**, Teaford, M.F., Livengood, S.V., Ungar, P.S. Analysis of incisor microwear in five genera of platyrrhine primates. *American Journal of Physical Anthropology* Supplement S60: 118.
- 2015 McGeachie, F., Glowacka, H., **Delezene, L.K.**, Begun, D.R. Pliopithecoid species number at the Late Miocene fossil locality of Rudabánya, Hungary. Unpublished abstract presented at the American Association of Physical Anthropologists Undergraduate Research Symposium.
- 2013 **Delezene, L.K.**, Teaford, M.F., Ungar, P.S. Anterior dental microwear in sympatric *Callicebus brunneus* and *Ateles marginatus*. *American Journal of Physical Anthropology* Supplement 56: 110.

- 2013 Zolnierz, M.A., **Delezene, L.K.**, Grine, F.E., Teaford, M.F., Kimbel, W.H., Ungar, P.S. Comparison between *Australopithecus afarensis* and *Pan troglodytes* honing facet microwear. *American Journal of Physical Anthropology* S56: 301.
- 2012 **Delezene, L.K.** Lines of least evolutionary resistance and the evolution of the canine honing complex. *American Journal of Physical Anthropology* S54: 128.
- 2011 **Delezene L.K.** Pleiotropy and coevolution among characters of the anthropoid canine honing complex. *American Journal of Physical Anthropology* S52: 123.
- 2011 Zolnierz, M.A., **Delezene, L.K.**, Kimbel, W.H., Scott, J.R., Ungar P.S. Premolar microwear in *Australopithecus afarensis* and *A. africanus*. *American Journal of Physical Anthropology* S52: 318–319.
- 2008 Stroik, L.K., **Delezene, L.K.** Comparison of dietary morphological space among Paleogene primate communities. *American Journal of Physical Anthropology* S46: 202.
- 2007 **Delezene, L.K.** A test of the generality of the association between molar flare and diet in anthropoid primates. *American Journal of Physical Anthropology* S44: 97.
- 2006 Orr, C.M., **Delezene, L.K.**, Scott, J.E., Tocheri, M.W., Schwartz, G.T. Anterior dental grooves and the inference of venom delivery systems in fossil mammals. *Journal of Vertebrate Paleontology* 26: 107A-108A
- 2006 **Delezene, L.K.** Extracting three-dimensional information from the hominid mandibular dentition. *American Journal of Physical Anthropology* S42: 82.
- 2006 Orr, C.M., **Delezene, L.K.**, Scott, J.E., Schwartz, G.T., Tocheri, M.W. Canine grooves and the inference of venom delivery systems in Paleocene mammals. 2006 GELSS symposium, Arizona State University.
- 2005 **Delezene, L.K.** and Schrein, C.M. Is *Ouranopithecus macedoniensis* a hominin? A critical assessment of evidence from canine and P3 morphology. *Paleoanthropology Society Abstracts*: A10
- 2005 **Delezene, L.K.** Morphological change of the P3 within *Australopithecus anamensis* and *Australopithecus afarensis*. *American Journal of Physical Anthropology* S40: 93.
- 2004 **Delezene, L.K.** A comparison of P3 morphology in early Pliocene hominins. *Paleoanthropology Society Abstracts*. A36.

## **COURSES TAUGHT**

- ANTH 3903 *BioCultural Perspectives on Race*. University of Arkansas. Co-Taught with Dr. Ram Natarajan. (Fall 2017)

- ANTH 4903/5153     *Context and Paleoecology of Human Evolution*. University of Arkansas. (Spring 2017).
- ANTH 4903/5153     *Fossil Hominins*. University of Arkansas. (Spring 2016, Spring 2018).
- ANTH 1011L         *An Introduction to Biological Anthropology (Laboratory)*. University of Arkansas. (Fall 2011-Spring 2013; 20 times).
- ANTH 1013         *An Introduction to Biological Anthropology*. University of Arkansas. (Fall 2011-Spring 2018; 16 times)

### **TEACHING/MENTORSHIP AWARDS**

- 2017                 Faculty Gold Medal, The Office of Nationally Competitive Awards, University of Arkansas.
- 2013                 New Faculty Commendation for Teaching Commitment, University of Arkansas.
- 2012                 New Faculty Commendation for Teaching Commitment, University of Arkansas.

### **SERVICE**

- 2018                 Student Awards Committee member for the 88<sup>th</sup> annual meeting of American Association of Physical Anthropologists.
- 2017–                 Mentor, First-Generation Student Mentoring Program. University of Arkansas.
- 2017                 Student Awards Committee member for the 87<sup>th</sup> annual meeting of American Association of Physical Anthropologists.
- 2016                 Student Awards Committee member for the 86<sup>th</sup> annual meeting of American Association of Physical Anthropologists.
- 2016                 Co-Organizer Anthropology Open Lab Night, University of Arkansas (4/21/2016).
- 2014–2017         Faculty Sponsor; Anthropology Graduate Student Consortium, University of Arkansas.
- 2013                 Scientific Program Committee member for 83<sup>nd</sup> annual meeting of the American Association of Physical Anthropologists.
- 2012                 Scientific Program Committee member for 82<sup>nd</sup> annual meeting of the American Association of Physical Anthropologists.
- 2008                 Session moderator for Graduates in Earth, Life, and Social Sciences (GELSS) symposium, Arizona State University
- 2008                 Grant reviewer for Graduate and Professional Student Association (GPSA),



Arizona State University

- 2007 Session moderator for Graduates in Earth, Life, and Social Sciences (GELSS) symposium, Arizona State University
- 2006 Physical anthropology brown bag coordinator for graduate students, School of Human Evolution and Social Change, Arizona State University
- 2005–2006 News and discovery moderator for [www.becominghuman.org](http://www.becominghuman.org)
- 2004 Institute of Human Origins, Public Lecturer for K-12 students, Arizona State University

### **HONORS COMMITTEE MEMBERSHIP**

Amber Ament (Member; Univ. of Arkansas; Anthropology; cum laude; 2015)  
Tyler Christian Thompson (Chair; Univ. of Arkansas; Anthropology; cum laude; 2017)  
Holly Alker (Member; Univ. of Arkansas; Anthropology; cum laude; 2017)  
Sarah Jeffress (Chair; University of Arkansas; honors candidate)  
Lauren Murabito (Chair; University of Arkansas; honors candidate)

### **GRADUATE COMMITTEE MEMBERSHIP**

Salvatore Caporale (Member; Univ. of Arkansas; Anthropology; MA, 2016)  
Alexandra Peterson (Member; University of Arkansas; MA; 2017)  
E. Susanne Daly (Member; Arizona State University; PhD candidate, 2015)  
Jenny Burgman (Member; University of Arkansas; PhD candidate, 2017)  
Elicia Abella (Member; University of Arkansas; PhD candidate, 2017)  
Ashley Romero (Member; University of Arkansas; MA student)  
Hannah Grace Showalter (Member; University of Arkansas; MA student)  
Nicole Robinson (Member; University of Arkansas; MA student)  
Brian Sparr (Member; University of Arkansas; MA student)  
Liam Zachary (Member; University of Arkansas; PhD student)

### **GRANTS REVIEWED**

*The Leakey Foundation*

### **JOURNAL MANUSCRIPTS REVIEWED**

*American Journal of Physical Anthropology*  
*e-Life*  
*Folia Primatologica*  
*International Journal of Primatology*  
*Journal of Anatomy*  
*Journal of Archaeological Science*  
*Journal of Human Evolution*  
*Nature Ecology and Evolution*  
*PeerJ*  
*Science Reports*

## **MEDIA APPEARANCES**

Ozarks at Large, May 2017

Arlene Bynon Show, May 9, 2017

National Geographic, October 2015

Ozarks at Large, October 2015

Arkansas Traveler, October 2015

Arkansas Democrat, October 2015

KXUA, October 2015

KFUA, October 2015