

ELEN MAREE FEUERRIEGEL

University of Washington
Department of Anthropology
314 Denny Hall, Box 353100
Seattle, WA 98195-3100
Email: efeuer@uw.edu | Phone: (206) 388-6997

ACADEMIC POSITIONS

- 2016-Present Lecturer and Postdoctoral Research Associate, Primate Evolutionary Biomechanics Laboratory, Department of Anthropology, University of Washington, Seattle, U.S.A.
- 2020-Present Adjunct Faculty in Anthropology, Division of Social Sciences, Green River College, Auburn, WA, U.S.A.
- 2013-Present Honorary Research Fellow, Evolutionary Sciences Institute and Centre of Excellence, University of Witwatersrand, South Africa.

EDUCATION AND TRAINING

- 2017 Doctor of Philosophy, Biological Anthropology
Australian National University, Canberra, Australia.
- 2012 Masters of Biological Anthropology
Australian National University, Canberra, Australia.
- 2011 Bachelor of Arts (First Class Honors)
University of Queensland, St. Lucia, Brisbane, Australia.
GPA 7.0 (out of 7.0); Dean's Commendation for Academic Achievement

DISSERTATION AND THESIS

- 2017 'Biomechanics of the Hominoid Shoulder: Enteseal Development and Manual Manipulation'.
Ph.D. Dissertation. Australian National University, Canberra, Australia.
- 2011 'Mobility Matters: Humeral Torsion and its Implications for Tool Use in the Hominin Lineage'.
Honors Thesis. University of Queensland, Brisbane, Australia.

TEACHING EXPERIENCE

Green River College

2021 **ANTH& 205: *Introduction to Biological Anthropology***. Winter quarter, 26 students.
Instructor of Record.

2020 **ANTH& 205: *Introduction to Biological Anthropology***. Fall quarter, 31 students.
Instructor of Record.
Introductions to the principles of biological anthropology, including a broad-spectrum introduction to the scientific method, evolutionary theory and taxonomy, the order Primates, and the human fossil record.

University of Washington

2020 **BIO A 473: *Biological Adaptability of Human Populations***. Spring quarter, 40 students.
Instructor of Record.

Mechanisms enabling humans to maintain homeostasis in extreme environments: high altitude, heat, cold, nutritional deficiency, radiation. Adaptive processes operating at levels of physiology, metabolism, and population, including the strategies of fertility and birth spacing.

2019 **BIO A 270: *Human and Comparative Anatomy***. Spring quarter, 90 students.
Instructor of Record.
Human physiology and anatomy from the perspectives of evolution and comparative anatomy.

BIO A 370: *Introduction to Primates*. Summer quarter, 11 students.

Instructor of Record.

The origins, morphology, major evolutionary trends, sociobiology, and conservation of non-human primates.

2018 **BIO A 270: *Human and Comparative Anatomy***. Spring quarter, 40 students.
Instructor of Record.

Australian National University

2013-2015 **BIAN 6013: *Human Evolution***. 2 semesters, 80 students.

Teaching Assistant.

Lectured twice per semester on evolutionary anatomy the australopithecines and assisted in running 3 tutorial sections weekly.

INVITED LECTURES

2019 LARCH 498B/598B Design Studio: Walking in the Anthropocene
June 26. Department of Landscape Architecture, University of Washington.
Lecture titled: 'Walking upright: How moving through landscapes shaped our species'

Radford University, Radford, Virginia

February 13. Department of Anthropological Sciences.

Lecture titled: 'Discovering *Homo naledi*: The Rising Star Expedition and the Mystery of the Human Story'

Virginia Polytechnic Institute Cave Club (Grotto of the N.S.S.)

February 16. Annual Grotto banquet.

Lecture titled: 'Discovering *Homo naledi*: How Cave Exploration is Re-Writing Human Origins'

2018 Sammamish High School, Bellevue, Washington

May 23. Keynote address, STEM Career Fair.

Lecture titled: 'The apples of Newton and Cezanne: Discovery, innovation, and creativity in science.'

2017 BIO A 389: Human Fossils and Evolution
Department of Anthropology, University of Washington.
Lecture 1: ‘The First Stone Tools: Lomekwian and Oldowan’
Lecture 2: ‘*Australopithecus africanus*: Context and Crania’
Lecture 3: ‘*Australopithecus africanus*: Palaeoenvironment and Postcrania’
Lecture 4: ‘*Homo naledi*’

University of Washington, Seattle, Washington
February 10. Friday Afternoon Archaeology Lecture Series (FAALS).
Lecture titled: ‘Biomechanics of the upper limb during Oldowan stone tool manufacture’

2016 Australian National University, Canberra, Australia
August 5. Centre for Archaeological Research Seminar Series.
Lecture titled: ‘The Rising Star Expedition and the discovery of *Homo naledi*’

Soroptimist International ACT & Monaro, Canberra, Australia
July 23. World Youth Skills Day Breakfast.
Lecture titled: ‘The Rising Star Expedition and open access science: Promoting the next generation of women in STEM’

2015 Kiwibank, Wellington, New Zealand
November 12. Knowledge Café Lecture Series.
Lecture titled: ‘The Rising Star Expedition, social media, and open science’

EVOLUTION SCIENCE OUTREACH

2020 The Downtown School, Seattle, WA, U.S.A.
Holy Rosary School, Edmonds, WA, U.S.A.
Eye Heart Science, Sydney, N.S.W., Australia
Balgowlah Heights Public School, Balgowlah, N.S.W., Australia
St. Cecilia’s Catholic Church, Balgowlah, N.S.W., Australia

2019 Blacksburg High School, Blacksburg, VA, U.S.A.
Blacksburg New School (Middle School), Blacksburg, VA, U.S.A.
Destiny Charter Middle School, Tacoma, WA, U.S.A.
Holy Rosary School, Edmonds, WA, U.S.A.
Lake and Park School, Mt. Baker, Seattle, WA, U.S.A.
Confederated Tribes of the Colville Reservation, WA, U.S.A.

2018 Holy Rosary School, Edmonds, WA, U.S.A.
STEM Career Fair, Sammamish High School, Bellevue, WA, U.S.A.
National Geographic Explorer Classroom. Online classroom with seven third-to-eighth grade classes from schools in the U.S. and Canada. (<https://www.youtube.com/watch?v=EsPd8TJD5P8>)
Confederated Tribes of the Colville Reservation, WA, U.S.A.

2017 Confederated Tribes of the Colville Reservation, WA, U.S.A.
Holy Rosary School, Edmonds, Seattle, WA, U.S.A.
Perot Museum, Dallas, TX, U.S.A.
Solar Preparatory School for Girls, Dallas, TX, U.S.A.
Irma Rangel Young Women’s Leadership School, Dallas, TX, U.S.A.
The Lamplighter School, Dallas, TX, U.S.A.
The Hockaday School, Dallas, TX, U.S.A.

St. Mark's School of Texas, Dallas, TX, U.S.A.
Uplift Luna Preparatory School, Dallas, TX, U.S.A.
STEM Career Fair, Sammamish High School, Bellevue, WA, U.S.A.

2016 Meet the Mammals, Burke Museum, Seattle, WA, U.S.A.
London Primary School Science Fair, London, U.K.

2015 St. Mark's School of Texas, Dallas, TX, U.S.A.
St. Augustine's College, Springfield, Australia
Onslow College, Wellington, New Zealand

PEER-REVIEWED PUBLICATIONS

- 2020 Voisin, J.-L., **Feuerriegel, E.M.**, Churchill, S.E., and Berger, L.R. 'La ceinture scapulaire *Homo naledi*: une adaptation à l'escalade de bloc (The *Homo naledi* shoulder girdle: An adaptation to boulder climbing)'. *L'anthropologie* 124: 1- 16.
- 2019 **Feuerriegel, E.M.**, Voisin, J.-L., Haeusler, M., Mathews, S., Churchill, S.E., Hawks, J., and Berger, L.R. 'Upper limb fossils of *Homo naledi* from the Lesedi Chamber, Rising Star System, South Africa'. *PaleoAnthropology* 2019: 311–349.
- 2018 Churchill, S.E., Green, D.J., **Feuerriegel, E.M.**, Macias, M.E., Matthews, S., Carlson, K.J., Schmid, P., and Berger, L.R. 'The shoulder, arm, and forearm of Malapa Hominins 1 and 2'. Monograph. *PaleoAnthropology* 2018, 234-281.
- 2017 **Feuerriegel, E.M.**, Green, D.J., Walker, C.S., Schmid, P., Berger, L., Hawks, J., Churchill, S.E. 'The Upper limb of *Homo naledi*'. *Journal of Human Evolution* 104, 155-173.
- Hawks, J., Elliott, M., Schmid, P., Churchill, S.E., Ruiters, D.J. de, Roberts, E.M., Hilbert-Wolf, H., Garvin, H.M., Williams, S.A., Deleuzene, 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., Hlopho, N., Hunter, R., Morris, H., Peixotto, B., Ramalepa, M., Rooyen, D. van, Tsikoane, M., Boshoff, P., Dirks, P.H.G.M., and Berger, L.R. 'New fossil remains of *Homo naledi* from the Lesedi Chamber, South Africa'. *eLife* 6, 1-63.
- 2015 Berger, L.R., Hawks, J., de Ruiters, D.J., Churchill, S.E., Schmid, P., Deleuzene, L.K., Kivell, T.L., 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.R., Bastir, M., Bogin, B., Bolter, D., Brophy, J., Cofran, Z.D., Congdon, K.A., Deane, A.S., Dembo, M., Drapeau, M., Elliott, M.C., **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, J.E., Throckmorton, Z., Tocheri, M.W., VanSickle, C., Walker, C.S., Wei, P., and Zipfel, B. '*Homo naledi*, a new species of the genus *Homo* from the Dinaledi Chamber, South Africa'. *eLife* 4, 1-35.
- Dirks, P.H., Berger, L.R., Roberts, E.M., Kramers, J.D., Hawks, J., Randolph-Quinney, P.S., Elliott, M., Musiba, C.M., Churchill, S.E., de Ruiters, D.J., Schmid, P., Backwell, L.R., Belyanin, G.A., Boshoff, P., Eaves, K.L., **Feuerriegel, E.M.**, Gurtov, A., Harrison, J.d.G., Hunter, R., Kruger, A., Morris, H., Makhubela, T.V., Peixotto, B., and Tucker, S. 'Geological and taphonomic context for the new hominin species *Homo naledi* from the Dinaledi Chamber, South Africa'. *eLife* 4, 1-37.

PAPERS PRESENTED

- 2020 **Feuerriegel, E.M.**, and Kramer, P.A. ‘Armswing dynamics in over-ground walking: The effect of velocity and footwear on armswing amplitude and asymmetry’, presented at the 89th Annual Meeting of the American Association of Physical Anthropologists, Los Angeles, California, U.S.A. 15-18 April.
- Zaehringer, H., **Feuerriegel, E.M.**, and Kramer, P.A. ‘Flexor digitorum profundus tendon forces in climbing grips’, presented at the 89th Annual Meeting of the American Association of Physical Anthropologists, Los Angeles, California, U.S.A. 15-18 April.
- Harward, A., **Feuerriegel, E.M.**, Lautzenheiser, S.G., and Kramer, P.A. ‘3D geometric morphometric of the calcaneocuboid joint: Shape association with calcaneal inclination angle’, presented at the 89th Annual Meeting of the American Association of Physical Anthropologists, Los Angeles, California, U.S.A. 15-18 April.
- Gildee, C.M., Ochoa, M., Zaehringer, H., **Feuerriegel, E.M.**, and Kramer, P.A. ‘Ankle kinematics during bipedal incline walking with burden’, presented at the 89th Annual Meeting of the American Association of Physical Anthropologists, Los Angeles, California, U.S.A. 15-18 April.
- 2019 **Feuerriegel, E.M.**, and Kramer, P.A. ‘Investigating fossil hominin climbing behaviors: Novel applications of existing technology’, presented at the 88th Annual Meeting of the American Association of Physical Anthropologists, Cleveland, Ohio, U.S.A. 27-30 March.
- 2018 **Feuerriegel, E.M.**, Voisin, J.-L., Churchill, S.E., Hawks, J., and Berger, L.R. ‘The Upper Limb of *Homo naledi*: New material from the Lesedi Chamber, Rising Star System, South Africa’, presented at the 87th Annual Meeting of the American Association of Physical Anthropologists, Austin, Texas, U.S.A. 11-14 April.
- Berger, L.R., Elliott, M.C., Peixotto, B., Morris, H., **Feuerriegel, E.M.**, Tucker, S.J., Kruger, A., Hunter, R., van Rooyan, D., Ramalepa, M., Tsikoane, M., Roberts, E., Spandler, C., Dirks, P. and Hawks, J. ‘A New naming scheme for the Dinaledi Chamber System and associated antechambers and passages of the Rising Star Cave System, South Africa’, presented at the 87th Annual Meeting of the American Association of Physical Anthropologists, Austin, Texas, U.S.A. 11-14 April.
- Elliott, M.C., Peixotto, B., Morris, H., **Feuerriegel, E.M.**, Tucker, S.J., Kruger, A., Hunter, R., van Rooyan, D., Ramalepa, M., Tsikoane, M., Roberts, E., Spandler, C., Hawks, J., and Berger, L.R. ‘Hominin material recovered from the base of the Chute in the Hill Antechamber, in the Dinaledi Chamber System of the Rising Star Cave’, presented at the 87th Annual Meeting of the American Association of Physical Anthropologists, Austin, Texas, U.S.A. 11-14 April.
- Hawks, J., Elliott, M.C., **Feuerriegel, E.M.**, Hlophe, N., Hunter, R., Morris, H., Peixotto, B., Ramalepa, M., Tsikoane, M., Tucker, S., van Rooyen, D. and Berger, L.R. ‘New fossil material of *Homo naledi* from the Dinaledi Chamber, South Africa’, presented at the 87th Annual Meeting of the American Association of Physical Anthropologists, Austin, Texas, U.S.A. 11-14 April.
- 2017 **Feuerriegel, E.M.**, Halaki, M., Reed, D., Groves, C.P., Ginn, K.A. ‘Electromyography, kinematics, and kinetics of the upper limb during Oldowan stone tool manufacture’, presented at the 86th Annual Meeting of the American Association of Physical Anthropologists, New Orleans, Louisiana, U.S.A. 19-22 April.
- 2016 **Feuerriegel, E.M.**, Green, D.J., Walker, C.S., Schmid, P., Hawks, J., Berger, L.R. and Churchill, S.E. ‘The shoulder and upper limb of *Homo naledi*’, presented at the 85th Annual Meeting of the American Association of Physical Anthropologists, Atlanta, Georgia, U.S.A. 13-16 April.

- 2015 **Feuerriegel, E.M.**, Halaki, M., Reed, D., Groves, C.P., Ginn, K.A. ‘Shoulder muscle recruitment patterns during Oldowan stone knapping: an electromyographic study’, presented at the Australasian Society of Human Biology Annual Conference, Brisbane, Australia. 2-4 December.

FIELD EXPERIENCE AND WORKSHOPS

- 2017 Rising Star Expedition, Rising Star Cave System, Cradle of Humankind, South Africa. September – October.
Primary Excavator. Continuing excavation of the Rising Star cave system, including both the Dinaledi and Lesedi Chambers, and material attributed to *Homo naledi*.
- 2016 Rising Star Expedition, Rising Star Cave System, Cradle of Humankind, South Africa. March & June.
Primary Excavator. Continuing excavation of the Rising Star cave system, the Lesedi Chamber, and material attributed to *Homo naledi*.
- 2014 Dissertation data collection, Ethiopia, Kenya, Tanzania, and South Africa. August – September.
Collected data on original fossil hominin specimens held in the National Museum of Ethiopia, Kenya National Museum, National Museum of Tanzania, and Ditsong Natural History Museum, Pretoria, South Africa
- Rising Star Workshop, University of Witwatersrand, South Africa. May – June.
Team Leader. Coordinated and led the description and analysis of the fossil hominin upper limb material from the Rising Star Expedition for publication in a leading human evolution journal. Contributed to the Taxonomy and Context papers for the same assemblage.
- 2013 Rising Star Expedition, Rising Star Cave System, Cradle of Humankind, South Africa. November – December.
Primary Excavator. One of the six lead scientists responsible for excavating the fossil hominin site of Rising Star. Central team member involved in the documentation, cleaning, preservation, and sorting of finds 6-8 hours daily for 4 weeks.
- 2008 Field School in Quaternary Palaeoanthropology and Prehistory of the Murcian Region, Spain. June – August.
Assisted in excavation of Middle Palaeolithic and Neanderthal remains of Cueva Negra del Estrecho del Río Quípar and Sima de las Palomas del Cabezo Gordo sites in Murcia, Spain
- 2006 Queensland Museum Indigenous Repatriation Programme. Brisbane, Australia. April – May.
Student Assistant. Assisted Leonie Coghill, Manager of Aboriginal and Torres Strait Islander Community Relations, and Imelda Miller, Assistant Curator for the Torres Strait and South Sea Islander Collection, to research and organise materials and human remains for repatriation.

GRANTS

- 2019 **Student Technology Fee**
Awarding institution: University of Washington
Technology grant to fund the purchase of a 3D scanner and 3D printer to support the research needs of the students in the Department of Anthropology.
Award amount: US\$29,044.00
- 2016-2017 **Quaternary Research Center**
Awarding institution: University of Washington
Grant to conduct pilot research on the biomechanics of rock climbing grips.
Award amount: US\$1,928.65

2013 **HDR Support Fieldwork Grant**
Awarding Institution: ANU School of Archaeology and Anthropology
Grant to support the costs of doctoral fieldwork.
Award amount: AU\$5,709.89

2013 **HDR Support Fieldwork Grant**
Awarding institution: ANU School of Archaeology and Anthropology
Grant to support the costs of conducting doctoral experimental work.
Award amount: AU\$1,200

SCHOLARSHIPS

2013-2016 **Australian Postgraduate Award**
Awarding institution: Australian Federal Government
Nationally competitive scholarship for the completion of doctoral studies.
Award amount: AU\$24,653 per annum, total: AU\$86,286 over 3 years

ACHIEVEMENTS, AWARDS, AND MERITS

University of Washington

2020 **Finalist, Graduate School Mentoring Award for Postdoctoral Trainees**
I was nominated by my graduate student mentees for this award and was listed as a finalist by the committee. The award honors exceptional UW postdoctoral trainees who dedicate time, energy, and effort to mentoring graduate students.

Australian National University

2016 Vice-Chancellors Travel Award, AU\$1000
2016 AAPA Pollitzer Travel Prize, AU\$700
2015 ASHB Travel Award, AU\$400
2013 Australian Archaeological Association Photographic Award (Category B), AU\$200

University of Queensland

2008-2010 Dean's Commendation for Academic Excellence

PROFESSIONAL MEMBERSHIPS

2015-Present American Association of Physical Anthropologists
2015-2018 Australasian Society of Human Biology
2012-2018 Australian Archaeological Association
2012-2015 Australian Anthropological Association

REFEREES

Patricia A. Kramer

Professor of Bioanthropology and Department Chair
Department Anthropology
University of Washington
314 Denny Hall, Box 353100
Seattle, WA 98195-3100
Email: pakramer@uw.edu
Phone: (206) 616-2449

John Hawks

Vilas-Borghesi Distinguished Achievement Professor
Department of Anthropology
University of Wisconsin-Madison
1180 Observatory Drive
Madison, WI 53706
Email: jhawks@wisc.edu
Phone: (608) 262 8726

Steven G. Lautzenheiser

Lecturer
Department of Anthropology
University of Tennessee-Knoxville
502 Strong Hall
1621 Cumberland Avenue
Knoxville, TN 37996-1525
Email: slautzen@utk.edu
Phone: (206) 715-7807