Levi Raskin

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Appointments

Fall 2024 – Spring '25 Graduate Student Instructor, Department of Integrative Biology, University of California, Berkeley

Education

Fall 2024 PhD program in Integrative Biology, University of California, Berkeley.
Advisor: Dr. John Huelsenbeck.
Advisory committee: Dr. John Huelsenbeck, Dr. Rasmus Nielsen, and Dr. Jack Tseng.

2020 – 2024 Haverford College, Biology and Anthropology double major at Bryn Mawr College via Haverford-Bryn Mawr Bi-College consortium.
Advisors: Dr. Maja Šešelj and Dr. Bárbara Bitarello
Honors: cum laude, departmental honors in Biology, departmental honors in Anthropology

Relevant Coursework

Fall 2024 UC Berkeley Integrative Biology 206 Statistical Phylogenetics

Summer 2023 Statistical Rethinking, taught by Richard McElreath on GitHub

Spring 2023 UPenn Anthropology 6020 Evolutionary Anthropology

Grants, Fellowships, and Awards

Fall 2023 Louis Green Fund and the Koshland Integrated Natural Sciences Center Conference Fund: $2400

Fall 2023 Bryn Mawr College Award for Conference Travel: $450

Summer 2023 Bryn Mawr College Summer Science Research Program Stipend

Spring 2023 Barry Goldwater Scholarship

Fall 2022 Louis Green Fund: $1500

Spring 2022 Pauline Adams Fund for Excellence in Anthropology: $4500

Spring 2022 Deborah Lafer-Scher International Internship: $1800

Spring 2022 Hurford Center Breaking the Rules Fellowship: $3200

Spring 2022 Frederica de Laguna Fund: $700

Manuscripts in prep

Raskin, Levi Y.; Bitarello, Bárbara D.; O'Hara, Mackie C.; and Šešelj, Maja (2024). Perikymata are unlikely to differentiate between Middle Pleistocene hominin taxa. Submitted to *Proceedings of the National Academy of Sciences*.

Raskin, Levi Y.; Šešelj, Maja; and Bitarello, Bárbara D. (in prep). Evaluating trait redundancy and information content and their effects on hominin phylogenetic inference. Intend to submit to *Journal of Human Evolution*.

Published Abstracts

Raskin, Levi Y.; Šešelj, Maja; and Bitarello, Bárbara D. (2024). The effect of trait redundancy on parsimony-inferred tree topologies from a hominin character matrix [Podium presentation]. Paleoanthropology Society.

Raskin, Levi Y.; O'Hara, Mackie C.; Erskine, Amy I.; and Šešelj, Maja. (2024). Moving great ape osteobiographies forward: digitally linking macro and micro data and media at the individual level [Podium presentation]. American Association of Biological Anthropologists.

Raskin, Levi Y.; Reeves, Jonathan S.; Douglass, Matthew J.; and Braun, David R. (2023). Least-effort knapping as a baseline to study social transmission in the Early Stone Age [Poster]. Society for American Archaeology.

Reeves, Jonathan S.; **Raskin, Levi Y.**; Douglass, Matthew J.; and Braun, David R. (2023). Establishing baselines for stone tool variation across the Early Pleistocene: A least effort approach [Podium presentation]. Society for American Archaeology.

Presentations

Spring 2024	*Perikymata are unlikely to differentiate between Middle Pleistocene hominin taxa*. Biology Senior Presentations, Bryn Mawr, PA.
Spring 2024	*The effect of trait redundancy on parsimony-inferred tree topologies from a hominin character matrix.* Annual meeting of the Paleoanthropology Society, Los Angeles, CA.
Spring 2024	*Moving great ape osteobiographies forward: digitally linking macro and micro data and media at the individual level*. Annual Meeting of the American Association of Biological Anthropologists, Los Angeles, CA.
Summer 2023	*Developing imaging techniques for perikymata*. Summer Science Research Poster Session, Bryn Mawr, PA.
Spring 2023	*Least-effort knapping as a baseline to study social transmission in the Early Stone Age*. Annual Meeting of the Society for American Archaeology, Portland, OR.
Fall 2022	*Least-effort handaxes*. Koobi Fora Training and Research Project Workshop, Washington, D.C.
Fall 2022	*Are handaxes the first culture?* Hurford Center for Arts and Humanities Breaking the Rules Fellow talk, Haverford, PA.

Research Experience

2020 – 2024	Bachelor's research:

Tested the phylogenetic information content of great ape perikymata. Ongoing project, mentored by Professors Maja Šešelj and Bárbara Bitarello (Bryn Mawr College).

Devised a novel method to test the phylogenetic information content of traits in a character matrix. Ongoing, submitting to *Proceedings of the National Academy of Sciences*, mentored by Professors Maja Šešelj and Bárbara Bitarello. Presented this work at the Paleoanthropology Society 2024 annual meeting.

Improving existing and developing novel phylogenetic comparative methods for small clades. Currently focusing on improving the power of Blomberg's K to small clades using machine learning and bootstrapping. Ongoing, mentored by Professors Maja Šešelj and Bárbara Bitarello.

Experimental archaeology research into social transmission in the Early Pleistocene using 3D geometric morphometrics and a novel application of elliptical Fourier analysis I developed. With Jonathan Reeves (PI, Max Planck Institute for Evolutionary Anthropology), Matthew Douglass (U. Nebraska-Lincoln), and David Braun (George Washington University).

2019 – 2020 High School research – research at the University of Chicago Alemseged lab. 2D morphometrics of Oldowan and Acheulean tool typologies from Olduvai Gorge.

Collections Experience

2023 Field Museum of Natural History (Chicago, Illinois) – 3D scanning great ape specimens for senior thesis research. Scans are, or will be, available on MorphoSource. Noticed poor treatment of specimens by past researchers since I had last been in the collection, communicated with FMNH mammals curator, and storage policies have improved to prevent misuse of specimens by researchers.

2022 Field Museum of Natural History (Chicago, Illinois) – dental mold making of great ape specimens for senior thesis research.

Fieldwork Experience

2022 Excavation at a 1.5 Ma Acheulean site in Koobi Fora, Kenya. Led by Dr. Jonathan Reeves as part of the Koobi Fora Field School.

2021 Excavation at the ancestral Wichita site of Etzanoa, near Arkansas City, Kansas. Led by Dr. Donald Blakeslee and Dr. Crystal Dozier.

Workshops

2024 Phylogenetic Biogeography Workshop (Washington University in St. Louis). Learned to do Bayesian phylogenetic biogeography with RevBayes.

2022 Intro to GIS using R (University of Reading). Learned how to integrate R and GIS for spatial analysis.

2022 Koobi Fora Research and Training Project Workshop (George Washington University). Presented my research on the Acheulean industry and received feedback on my study design and research.

2021	TOOTH workshop (University of Zurich). Learned how to do dental occlusal wear and fingerprinting.

Courses Taught

Fall 2024	UC Berkeley Integrative Biology Bio 1B, lab instructor

Mentoring Experience

Summer 2024	Helping mentor a Bryn Mawr College Sumer Science Research student studying fluctuating asymmetry in incremental dental microstructures to test hypotheses about embodied morphologies in those tissues.
Summer 2023	Helped design and write an R package for teaching biostatistics (Bryn Mawr College).
Summer 2023	Helped mentor a University of St. Andrews summer research student 3D scanning dental casts and conducting archival research into the Field Museum of Natural History great apes. She is a coauthor on my 2024 AABA podium presentation.
Spring 2023 – Fall '23	Mentoring fellow undergraduate at University of Hartford via the Goldwater Ambassadors program.

Service

Fall 2024 – ongoing	Helping plan a phylogenetics methods reading group at UC Berkeley.
Fall 2022 – Spring '23	Helping plan the "Inclusivity in Fieldwork" workshop with Yale's Paleoarchaeology Laboratory to develop more ethical fieldwork practices drawing from a diversity of disciplines which do fieldwork.

Professional Memberships

Society for Systematic Biologists (SSB)

American Association of Biological Anthropologists (AABA)

Society for American Archaeology (SAA)

Paleoanthropology Society

Other experience

3D printing, 3D modeling, and computer aided design

Head of Manufacturing at Forte3D where we 3D printed cellos from carbon fiber nylon, 2022.
Worked at Fast Radius where I ran Carbon M2 and L1 resin 3D printers, 2020-2021.
Experienced with Autodesk Fusion 360 since 2017.
Experienced with Autodesk Inventor (including assemblies and sheet metal parts) since 2013.

Coding languages

Started using C++ Summer 2024.
Beginning git scripting, started learning Spring 2023 and mostly use GitHub for version controlling and collaboration.
Beginning bash scripting, started learning Spring 2023.
Self-taught R and R markdown in Winter of 2021. Took Biostatistics with R Fall 2022 which helped cement what I self-taught and served as a teaching assistant for the class Fall 2023.