# 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—ongoing 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

## Preprints

Raskin, Levi Y.; Šešelj, Maja; and Bitarello, Bárbara D. (2024). Assessing phylogenetic information content and redundancy in hominin craniodental traits. bioRxiv. https://doi.org/10.1101/2024.10.31.616875

## Manuscripts in prep

**Raskin, Levi Y.**; Bitarello, Bárbara D.; O'Hara, Mackie C.; and Šešelj, Maja (in prep). Perikymata are unlikely to differentiate between Middle Pleistocene hominin taxa. Intend to submit to *Journal of Human Evolution*.

## Published Abstracts

**Raskin, Levi Y.**; Bitarello, Bárbara D.; O'Hara, Mackie C.; and Šešelj, Maja (2025). Hidden state prediction suggests perikymata are unlikely to differentiate Middle Pleistocene hominins [Podium presentation]. American association of Biological Anthropologists.

**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

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| Spring 2025 | *Hidden state prediction suggests perikymata are unlikely to differentiate Middle Pleistocene hominins*. Annual Meeting of the American Association of Biological Anthropologists, Baltimore, MD. |
| Spring 2025 | *Assessing the influence of hominin craniodental traits on parsimony-inferred tree topologies*. Tooth Talks. |
| Fall 2024 | *What fossils do and don't tell us: pruning the human evolutionary tree*. PubScience, Albany, CA. |
| 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. |

## Grants, Fellowships, and Awards

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| Spring 2025 | American Association of Biological Anthropology Mildred Trotter student presentation prize. |
| Spring 2025 | American Association of Biological Anthropology William S. Pollitzer Student Travel Award: $595. |
| 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 |

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| 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 |

**Research Experience**

2024 – ongoing — Graduate research:

Integrating 3D geometric morphometric methods with likelihood based phylogenetic inference. Mentored by Professor John Huelsenbeck (UC California, Berkeley).

2020 – 2024 — Bachelor's research:

Tested the phylogenetic information content of great ape perikymata. All analyses are complete and the manuscript has been drafted; in the final stages of editing. 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**

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| 2024 – ongoing | University of California Museum of Paleontology (Berkeley, California) – affiliated student. |
| 2024 – ongoing | University of California Museum of Vertebrate Zoology (Berkeley, California) – 3D scanning great ape specimens for phylogenetics research. |
| 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 |

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| | 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**

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| 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**

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| 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. |

**Relevant Coursework**

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| 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 |

**Courses Taught**

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| Spring 2025 | UC Berkeley Integrative Biology 35AC Human Biological Variation, Graduate Student Instructor |
| Fall 2024 | UC Berkeley Integrative Biology Bio 1B lab, Graduate Student Instructor |
| Fall 2023 | Bryn Mawr College Biology Biostatistics with R, undergraduate TA |
| Fall 2022 | Bryn Mawr College Anthropology Introduction to Biological Anthropology, undergraduate TA |

**Mentoring Experience**

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| Fall 2024 – Jan 2025 | Mentored undergraduate at the University of Wisconsin Eau Claire via the Goldwater Ambassadors program. |

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| 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 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 | Mentored undergraduate at University of Hartford via the Goldwater Ambassadors program. |

**Service**

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| 2024 – ongoing | Graduate student workshop instructor with the University of California Museum of Paleontology ACCESS program. Planning and teaching paleontology, paleoanthropology, 3D scanning, and 3D geometric morphometrics workshops to Bay Area community colleges. |
| 2024 – ongoing | Running a phylogenetics methods reading group at UC Berkeley. |
| 2023 | Helped design and write an R package for teaching biostatistics at Bryn Mawr College. |
| 2022 – 2023 | 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