

Brian Anthony Keeling, Ph.D.

bkeelin1@binghamton.edu | +1 (708) 378 - 8353 | [LinkedIn](#) | [News](#)

Employment:

- | | |
|---|----------------------------------|
| (SUNY) Binghamton University | Binghamton, NY |
| <ul style="list-style-type: none">Lecturer, Department of Anthropology
Courses: Human Osteology, Statistics in Anthropology, Advanced Statistics in Anthropology, Virtual Anthropology, Human Origins | <i>Present</i> |
| <ul style="list-style-type: none">Instructor of Record, Department of Anthropology | <i>Summer 2021 – Summer 2025</i> |
| <ul style="list-style-type: none">Teaching Assistant, Department of Anthropology | <i>Fall 2018 – Spring 2023</i> |

Education:

- | | |
|---|-----------------------|
| (SUNY) Binghamton University | Binghamton, NY |
| <ul style="list-style-type: none">Ph.D. in Anthropology
Dissertation: The Biomechanical Nature of the Human Mandible | <i>May 2025</i> |
| <ul style="list-style-type: none">M.A. in Anthropology
Thesis: A Taxonomic and Phylogenetic Analysis of the Banyoles Mandible | <i>Aug 2020</i> |
-
- | | |
|---|-------------------|
| Illinois State University | Normal, IL |
| <ul style="list-style-type: none">B.S. in Anthropology
Senior Thesis: The Krapina Neandertal Site: Using Dental Metrics to Estimate Population Variability in Neandertals | <i>May 2018</i> |

Grants:

- | | |
|---|----------------------------|
| (SUNY) Binghamton University | Binghamton, NY |
| <ul style="list-style-type: none">Fulbright Pre-Doctoral Research Grant | <i>Sep 2023 – Jun 2024</i> |

Awards and Honors:

- | | |
|--|-----------------------|
| (SUNY) Binghamton University | Binghamton, NY |
| <ul style="list-style-type: none">Nominated for SUNY Distinguished Doctoral Dissertation Award | <i>Aug 2025</i> |

- SUNY Chancellor's Award for Student Excellence *April 2025*
- Graduate Student Excellence in Research Award *Jan 2025*
- Richard Antoun Dissertation Year Award *Aug 2024 – May 2025*
- Digital Storytelling Initiative Scholarship *Aug 2022 – Aug 2022*
- Graduate Teaching Assistantship *Aug 2018 – May 2023*
- Provost's Doctoral Fellowship *Summer 2018 – Summer 2020*

Illinois State University

Normal, IL

- Dean's List *Aug 2014 – Aug 2018*
- Best Undergraduate Thesis in Anthropology *Aug 2014 – Aug 2018*
- Wib Leonard Scholarship for Quantitative Sociology *May 2018*
- Bone Scholarship Nominee *May 2017*
- The National Anthropology Honor Society: *Lambda Alpha* *May 2017 – Present*
- Martin Nickels Scholarship for Field School Award *May 2016*

Leadership:

Department of Anthropology – (SUNY) Binghamton University

Binghamton, NY

- Anthropology 111 – Lead Teaching Assistant *Fall 2021 – 2022*
- Anthropology 168 – Lead Teaching Assistant *Spring 2022 – 2020*

Anthropology Graduate Organization – (SUNY) Binghamton University

Binghamton, NY

- President *May 2021 – May 2022*
- Librarian *May 2020 – May 2021*

Society of Student Anthropologists – Illinois State University

Normal, IL

- President *Aug 2016 – May 2017*
- President-Elect *Aug 2015 – May 2016*
- Board Member *Aug 2014 – May 2015*

Teaching:

Department of Anthropology – (SUNY) Binghamton University**Binghamton, NY***Instructor of Record*

- Anthropology 200 – Statistics in Anthropology *Summer 2024 – Summer 2025*
- Anthropology 335 – Human Origins *Summer 2021 – Summer 2025*

Graduate Teaching Assistant

- Anthropology 200 – Statistics in Anthropology *Spring 2023*
- Anthropology 111 – Intro to Anthropology *Fall 2022*
- Anthropology 168 – Intro to Biological Anthropology *Spring 2022*
- Anthropology 111 – Intro to Anthropology *Fall 2021*
- Anthropology 168 – Intro to Biological Anthropology *Spring 2021*
- Anthropology 114 – Intro to Linguistic Anthropology *Fall 2020*
- Anthropology 338 – Intro to Primates *Spring 2020*
- Anthropology 167 – Intro to Prehistoric Archaeology *Fall 2019*
- Anthropology 168 – Intro to Biological Anthropology *Spring 2019*
- Anthropology 111 – Intro to Anthropology *Fall 2018*

Guest Lecturer

- Anthropology 168 – “Our Relatives The Neandertals” *Spring 2023*
- Anthropology 111 – “Our Relatives The Neandertals” *Fall 2021 – Fall 2022*
- Evolutionary Studies 451/481 – “The Banyoles Mandible” *Spring 2022*

Department of Sociology and Anthropology – Illinois State University**Normal, IL***Undergraduate Teaching Assistant*

- Anthropology 102 – Intro to Biological Anthropology *Spring 2018*
- Anthropology 102 – Intro to Biological Anthropology *Fall 2016*
- Anthropology 102 – Intro to Biological Anthropology *Spring 2016*
- Anthropology 102 – Intro to Biological Anthropology *Fall 2015*

Research Publications and Academic Works:

-
- **Keeling, Brian A.** The Biomechanical Nature of the Human Mandible. Ph.D. Dissertation. *(SUNY) Binghamton University*.
 - Urciuoli, A., Martínez, I., Quam, R., Arsuaga, J. L., **Keeling, B. A.**, Diez-Valero, J., & Conde-Valverde, M. 2025. Semicircular canals shed light on the origin and evolution of the Neanderthal clade. *Nature Communications, Biological Sciences*.
 - **Keeling, Brian A.**, Quam, R., 2023. Enigmatic human fossil jawbone may be evidence of an early Homo sapiens presence in Europe – and adds mystery about who those humans were. *The Conversation*.
 - Quam, R., Martínez, I., Rak, Y., Hylander, B., Pantoja, A., Lorenzo, C., Conde-Valverde, M., **Keeling, B. A.**, Ortega Martínez, M.C., Arsuaga, J.L., 2023. The Neanderthal nature of the Atapuerca Sima de los Huesos mandibles. *The Anatomical Record, Special Volume*; pp. 1-51.

- **Keeling, B. A.**, Quam, R., Martínez, I., Arsuaga, J.L., Maroto, J., 2023. Reassessment of the human mandible from Banyoles (Girona, Spain). *Journal of Human Evolution* 174, 103291
- **Keeling, B.A.**, and Quam, R., 2020. A Taxonomic and Phylogenetic Analysis of the Banyoles Mandible (Girona, Spain). Master's Thesis Publication in *ProQuest* – (SUNY) Binghamton University
- **Keeling, B. A.**, Costovertebral/transverse osteoarthritis of the ribs at the Schroeder Mounds site. *Field Notes: A Journal of Collegiate Anthropology*, Vol. 10, pp. 45-75
- **Keeling, B. A.**, & Smith, F. H. (2018). The Krapina Neandertal site: Examining population diversity through dental morphology. Senior Thesis. Illinois State University, Normal, IL

Conference Presentations and Workshops:

- **Keeling, B. A.**, Conde-Valverde, M., Urciuoli, A., Diez-Valero, J., Martínez, I., & Quam, R. *The Biomechanical Nature of the Human Chin.* European Society for the Study of Human Evolution (ESHE) [Podium presentation] Sep 2024
- Urciuoli, A., **Keeling, B. A.**, Webb, N. M., Diez-Valero, J., Martínez, I., Quam, R., Arsuaga, J. L., & Conde-Valverde, M. *More than a deme: Semicircular canal shape reveals local evolution in Neanderthal paleodemes.* European Society for the Study of Human Evolution (ESHE) [Podium presentation] Sep 2024
- **Keeling, B. A.**, Conde-Valverde, M., Urciuoli, A., Diez-Valero, J., Martínez, I., & Quam, R. *La naturaleza biomecánica del mentón humano.* Spanish Society of Physical Anthropologists (SEAF) [Poster presentation] Sep 2024
- Diez-Valero, J., Conde-Valverde, M., Rodríguez, L., Quirós-Sánchez, A., **Keeling, B. A.**, Urciuoli, A., & Martínez, I. Patrones de alometría en las cavidades del oído externo y medio en homínidos: primeras aportaciones para la especie *Pongo pygmaeus*. Spanish Society of Physical Anthropologists (SEAF) [Poster presentation] Sep 2024
- **Keeling, B. A.** *When did our species first enter Europe? A study on an ancient human mandible from Banyoles.* Apr 2024

University of Alcalá Seminar Series in Ecology, Biodiversity, and Global Change
[Seminar presentation]

- **Keeling, B. A.**, & Sanderson, R. Nov 2023
Empowering Voices: Aims, Challenges, and Accountabilities in Public-Facing Research.
 Fulbright Mediterranean Research Seminar (FMRS)
 [Workshop]
- **Keeling, B. A.**, Quam, R., Martínez, I., Arsuaga, J. L., & Maroto, J. Nov 2023
A Biomechanical and Shape Assessment of the Mandibular Corpus in the Banyoles Mandible
 Fulbright Mediterranean Research Seminar (FMRS)
 [Poster presentation]
- **Keeling, B. A.**, Quam, R., Martínez, I., Arsuaga, J. L., & Maroto, J. Sep 2023
A Biomechanical and Shape Analysis of the Mandibular Corpus in the Banyoles Mandible.
 European Society for the Study of Human Evolution (ESHE)
 [Poster presentation]
- **Keeling, B. A.**, Anyim, R., Nowakowski, M. Aug 2022
 Anthropology Teaching Assistantship Training Workshop.
 (SUNY) Binghamton University Teaching Assistant Workshop
 [Workshop]
- **Keeling, B. A.**, Quam, R., Martínez, I., Arsuaga, J. L., & Maroto, J. Apr 2022
Form and Function in the Neandertal Mandible.
 American Association of Biological Anthropologists (AABA)
 [Podium presentation]
- Caccavari, C., **Keeling, B. A.**, & Quam, R. Apr 2022
Sources of variation in the semi-circular canals in Old World primates.
 American Association of Biological Anthropologists (AABA)
 [Poster presentation]
- **Keeling, B. A.**, Quam, R., Martínez, I., Arsuaga, J. L., & Maroto, J. Apr 2022
Form and Function in the Neandertal Mandible.
 American Association of Biological Anthropologists (AABA)
 [Podium presentation]
- Caccavari, C., **Keeling, B. A.**, & Quam, R. Apr 2022
Sources of variation in the semi-circular canals in Old World primates.
 American Association of Biological Anthropologists (AABA)
 [Poster presentation]
- **Keeling, B. A.**, & Quam, R. Mar 2019
The Krapina Neandertal Site: Using Dental Metrics to Estimate Population Variability in Neandertals
 American Association of Biological Anthropologists (AABA)
 [Poster presentation]

- **Keeling, B. A.**, & Smith, F. H. *May 2018*
Krapina Neandertal Site:
Examining Dental Morphology to Estimate Distinct Biological Populations.
Illinois State University Anthropology Research Symposium
 [Podium presentation]
- **Keeling, B. A.**, & Moore, L. *Nov 2017*
Costovertebral/Transverse Osteoarthritis of the Ribs at the
Schroeder Mounds Site.
 Bioarchaeology & Forensic Anthropology Association (BARFAA)
 [Symposium presentation]

Archaeological Excavations:

- UNESCO World Heritage Site *Summer 2022 – 2025*
 Sierra de Atapuerca, Spain (Estatuas Exterior site)
 Excavation Director – Dr. Ignacio Martínez
- Saint Césaire Neandertal Site, France *Summer 2022*
 Excavation Director – Dr. Isabelle Crevecoeur
- UNESCO World Heritage Site *Summer 2019*
 Sierra de Atapuerca, Spain (El Portalón site)
 Excavation Director – Dr. José Miguel Carretero
- Noble-Weiting Site in Heyworth, Illinois *Summer 2017*
 Excavation Director – Dr. G. Logan Miller
- Ohio Hopewell Settlement site in Dayton, Ohio *Summer 2016*
 Excavation Director – Dr. G. Logan Miller

Associations:

- European Society for the study of Human Evolution (ESHE) *Apr 2023 – Present*
- Evolutionary Otoacoustics and Paleoanthropology (Spain) *Aug 2023 - Present*
- American Association of Biological Anthropologists (AABA) *Aug 2018 – Present*
- Lambda Alpha Anthropology National Honor Society *May 2017 – Present*

Certifications:

- Structured Query Language (SQL) *Jan 2025*
University of Michigan (Coursera)
- Finite Element Analysis Applied to Life Sciences *May 2024*
Transmitting Science
- Support Vector Machines in R Certification *Nov 2021*
Datacamp
- Statistics with R – 5 Course Certification *Aug 2021*
Duke University (Coursera)
- Teaching Online Certification Program *May 2021*
Center for Learning and Teaching (CLT)
(SUNY) Binghamton University
Anthropology 335: Human Origins
- 3D Geometric Morphometrics *Jan 2021*
Transmitting Science

Technical Skills:

- **Statistical Analysis & Programming:** *Python, R, SQL, SPSS, Mathematica*
- **3D Visualization & Digitization:** *3DF Zephyr, Blender, EinScan, NextEngine*
- **CT Imaging & Analysis:** *3D Slicer, Avizo, Checkpoint, Dragonfly, ImageJ, Mimics*
- **Finite Element Analysis:** *Abaqus, Amira, Ansys, FEBio, Dragonfly*
- **Adobe Creative Cloud:** *Acrobat Reader, Media Encoder, Photoshop, Premiere Pro*
- **Microsoft Office Professional Suite:** *Excel, OneDrive, PowerPoint, Word*
- **Learning & Collaboration Platforms:** *Banner, Blackboard, Brightspace, DegreeWorks*

Languages:

- English - Native Proficiency
- Spanish - Intermediate Proficiency