

# Leila M. Joyce Seals, PhD RPA

*Community builder, scientist, and administrator*

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## EDUCATION

**PhD, Geology** **2022**  
**University of Kansas** **Lawrence, Kansas**

Dissertation: *Geoarchaeology of the Big Blue River valley, northeastern Kansas, and Implications for Paleoindian Archaeology*

**Masters of Science, Geology** **2014**  
**University of Puerto Rico-Mayagüez** **Mayagüez, Puerto Rico**

Thesis: *Rising Rivers and Shifting Shorelines: Constraining Holocene Sea Level Through Onshore and Archaeological Data in Santa Isabel, Puerto Rico.*

**Bachelor of Arts, cum laude, Anthropology** **2007**  
**Binghamton University (SUNY-Binghamton)** **Binghamton, New York**

Honors Thesis: *Disturbed! The Value of Artifacts Recovered from a Disturbed Midden Layer*

## RECENT RELATED EXPERIENCE

**Postdoctoral Scholar** **2022-2024**  
***Pennsylvania State University, Department of Geoscience***

- Researched and developed contextual co-curriculum for PSU geoscience field camp
  - Curriculum to be published through SERC in 2026
- Developed and implemented evaluation tools for geoscience field curriculums
- Researched and implemented ways to increase accessibility, inclusivity, and belonging in geoscience field camp
- Instructor for Geology Field Methods (Spring 2024), and Geology Field Camp (Summer 2024)

**Instructor of Record** **2023**  
***Pennsylvania State University World Campus***

- Course: “Rocks, Minerals, and the History of Art”
- Managed an undergraduate teaching assistant
- Ensured compliance with established coursework and university norms for online teaching

**Graduate Research Assistant** **2014- 2022**  
***Odyssey Archaeological Research Fund, Kansas Geological Survey***

- Research geologic, environmental, archaeological, and ethnographic history of the Central Plains of the USA with a focus on Paleoindian archaeology
- Liaise with the public and government agencies to secure access to private or government-owned property
- Conduct analyses for the Geoarchaeology and Paleoenvironmental Research Laboratory (GPRL)
- Supervise and train student staff to perform analyses in the GPRL
- Data management and sample curation of dissertation research and externally submitted soil samples
- Organize and curate data from archaeological and geoarchaeological study sites
- Supervise and train student excavators during Odyssey Archaeological Fund excavations

**Archaeological Technician**  
*Public Archaeology Facility,*  
*NY State Research Fund, Binghamton, New York*

**2007-2011**

## **ADDITIONAL EXPERIENCE**

**Freelance Copyeditor**  
*Historical Archaeology, SHA Journal*

**2026**

**Strategic Outreach Consultant**  
*Geological Society of America*

**2025**

- Collaborate with grant writer to develop grant proposals and applications for a variety of geoheritage-focused projects
- Coordinate with affinity groups (e.g., GeoComunidad, Black in Geo, Asian and Pacific Islanders in Geoscience) to ensure their specific needs were met through the organization and at the annual meeting (GSA Connects)
- Develop and work towards goals of the GSA Lecture Library, including developing marketing materials, coordinating with GSA Divisions

**Program Manager, Innovation Spotlight Stage**  
*GSA Connects 2026*

**2025**

*Geological Society of America*

- Plan, design, and carry out every detail of the Innovation Spotlight Stage at the annual GSA meeting
- Communicate with confirmed and potential presenters, including sponsors and exhibitors
- Develop programming for the Stage to fill time between exhibitor presentations and to encourage interest in the Stage
- Host and moderate all events on the Stage
- Manage audiovisual technicians
- Manage student volunteers
- Coordinate with GSA administration and exhibitors

**Co-Organizer**  
*Explorations in Archaeology, KU Dept of Anthropology*

**2015- 2022**

- Plan, coordinate, and host/moderate colloquium programming.
- Secured \$500 in funding for broadcasting external seminars and speaker honoraria.
- Successfully transitioned in-person colloquium to online format. More than doubled attendance, number of events, and recruited lecturers from outside the University of Kansas and immediate academic circles of faculty and students.

**Science Communicator, Project and Grant Manager**  
*The Geology Project*

**2019- 2021**

- Research and create bilingual geoscience education content for social media.
- Create and present talks about The Geology Project (TGP) at national meetings of professional societies.

- Awarded \$1500 through the 2019-2020 E-AN Zen Geoscience Outreach Grant, Geological Society of America Geology and Society Division.
- Increased social media reach by ~3000 new followers, and an overall reach of over 100,000 social media users.

**Writer, Administrator**

**2018- 2021**

***Blog of the LadyGeos***

- Research and write blog posts.
- Coordinate with other four core bloggers. Identify, communicate with, and schedule guest bloggers. Post to blog Instagram and communicate with followers.
- In 2020 I hosted a weekly coffee break and happy hour to help provide a sense of community for geoscientists and non-geoscientists alike, with a focus on providing community and safe space for women and people of color.
- Blog has been running for nearly two years, and reached over 1,000 people.

**Co-Supervisor, Sample Preparation Laboratories**

**2013**

***University of Puerto Rico-Mayagüez, Geology Department***

- Managed thin section laboratory, made thin sections, taught students to make thin sections
- Ensured compliance with department-specific and general geoscience laboratory standards, policies, and safety regulations

**Graduate Teaching Assistant**

**2011-2014**

***University of Puerto Rico Geology Department***

- **General education courses:** Introduction to Geology, Geology for Civil Engineers, Life in the Past (La vida en el pasado).
- **Core curriculum courses:** Sedimentary Environments and Lithogenesis
- **Stand-alone field trips:** Geology and Tectonics of the Dominican Republic; Modern Sedimentary Environments of Puerto Rico; Miocene-Pliocene Carbonate Sequences in Southeastern Spain (UPRM group)

**Graduate Research Assistant (GPS and LIDAR)**

**2011**

***University of Puerto Rico-Mayagüez, Geology Department***

**Supervisor:** Gouquan Wang

**EDUCATION**

**PhD, Geology**

**2022**

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**Lawrence, Kansas**

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## FELLOWSHIPS/COMMUNITIES OF PRACTICE

<b>ADVANCEGeo Partnership</b> <i>Trainer</i>	<b>2025-present</b>
<b>Belonging in Field Education Community of Practice</b>	<b>2023</b>
<b>AGU Voices for Science</b> <i>Communication/Media Track</i>	<b>2020-2021</b>
<b>Madison and Lila Self Graduate Fellowship, University of Kansas</b>	<b>2015- 2019</b>

## SERVICE

**Vice-president** **2023- present**  
*Association for Women Geoscientists Foundation (AWGF)*

- Administrate the Foundation and related funds
- Evaluate and select project proposal to be funded by the AWGF
- Recently awarded \$25,000 from the Maxwell-Hanrahan Foundation to expand the fieldwork-supporting scholarships we offer
- The 2024-25 campaign ‘40k for 40yrs’, in celebration of the 40<sup>th</sup> anniversary of the Foundation’s creation, exceeded the desired amount by almost triple the amount (weird/terrible sentence)

**Advocacy Board Member** **2022- present**  
*Second National Conference: Justice in Geoscience (AGU Chapman Conference)*

**President, other elected positions** **2015-2019**  
*Association for Women Geoscientists-Osage Chapter*

- Designed and managed outreach events for elementary to high school students, coordinated volunteers for events.
- Fundraised over \$5000 (2017, 2018) for research scholarships and geoscience outreach events.
- Co-organized the panel “Pioneering the New Normal: The Women Leading Today’s Geosocieties”. The panel brought together four then-current or past presidents of geological professional societies to discuss their careers, challenges, and careers.
- Osage Chapter was awarded ‘Association for Women Geoscientists Chapter Excellence Award’ in recognition of our work during my 2018-2019 presidency.

## PUBLICATIONS & CONFERENCE PRESENTATIONS

<sup>(P)</sup> **Joyce Seals, L.M.**, and Mandel, R.D., *in prep*, Geoarchaeology of the Big Blue River valley, NE Kansas,

<sup>(P)</sup> **Joyce Seals, L.M.**, and Feineman, M., *in prep*, Supporting Geoscience Skill Building and Inclusionary Behavior through Geoscience Field Education,

- Joyce Seals, L.M.**, Remaking the Field: Geoscience Field Camp and Field Education as a Force for Increased Belonging and Disciplinary Change, AGU 2024, Washington D.C.
- Joyce Seals, L.M.**, Starting with A & B: Data-driven strategies and approaches for improving access and belonging in geoscience field camp and other geoscience experiences, GSACConnects 2024, Anaheim.
- Joyce Seals, L.M.**, and Mandel, R.D., Geoarchaeology of the Big Blue River valley, NE Kansas: Implications for Paleoindian and Earlier Archaeology, Society for American Archaeology 2024, New Orleans
- <sup>(P)</sup> Mandel, R.D., **Joyce Seals, L.M.**, and Layzell, A.L., 2024, Holocene and late Pleistocene bioclimatic change inferred from  $\delta^{13}\text{C}$  of organic carbon in buried alluvial soils in the tall grass prairie, northeastern Kansas. CATENA, 236.
- Joyce Seals, L.M.**, Geoscience Field camp in the 21<sup>st</sup> Century: Quick fixes, Larger Issues, and Dreams of Field Work Future, SACNAS NDiSTEM 2023, Portland.
- Joyce Seals, L.M.**, Reano, D., García, Jr., A. A., Buck, M., and Smyth, W.F., Maintaining Momentum for Change: Identity Incorporation and JEDI Efforts in Geoscience Communication and Education, GSA 2021, Portland.
- Joyce Seals, L.M.**, Madera-Martorell, A., Rodríguez-Colón, B.J., Rivera-Llavona, I., and Matos-Llavona, P.I., 2020, The Geology Project and the 2019-2020 Puerto Rico Seismic Sequence: Science Communication Techniques, Challenges, and Lessons Learned, AGU Fall 2020 Meeting, Online.
- Joyce Seals, L.M.**, Rodríguez-Colón, B.J., Madera-Martorell, A., Rivera-Llavona, I., and Matos-Llavona, P.I., 2020, The Role of Geoscience Communication: Mitigating the Social Impact of Geologic Crises. GSA 2020, Online.
- Reano, D., García Jr., A.A., **Joyce Seals, L.M.**, Smyth, W.F., 2020, Converging for Change: Making Space for Our Identities in Geoscience. GSA 2020, Online.
- <sup>(P)</sup> Cremeans, M., and **Joyce Seals, L.M.**, 2020, Equality and Equity in Science, Technology, and Innovation: Transformation for People and Planet, *in* El-Hashemite, N., ed., #February11 Women and Girls in Science 2020: For Socio-Economic Sustainable Development: Royal Academy of Science International Trust, p. 45-54.
- Joyce Seals, L.M.**, Santos, H., 2019, Rising Rivers and Shifting Shorelines: Exploring Landscape Change in Mid to Late Holocene Puerto Rico and Implications for Archaeology, GSA 2019, Phoenix, AZ.
- Joyce Seals, L.M.**, Rivera-Llavona, I., Madera-Martorell, A., Matos-Llavona, P.I., and Rodríguez-Colón, B.J., 2019, The Geology Project: Multilingual Geoscience By Multilingual Geoscientists, AGU 2019 Fall Meeting, San Francisco, CA. (poster)
- Rodríguez-Colón, B.J., Rivera-Llavona, I., **Joyce Seals, L.M.**, Madera-Martorell, A., and Matos-Llavona, 2019, Rocking the Small Screens: Challenges and Adventures of The Geology Project's Video Content, AGU 2019 Fall Meeting, San Francisco, CA. (oral)

## CONFERENCE SESSIONS & FIELD TRIPS CHAIRED

**G-IRL: Collaborations and Conversations on Practicing Geoscience and In-Real-Life Applications for Dismantling Scientific Siloes**, Session T37., Geoscience Education; GSA Annual Meeting 2023.

Co-chairs: Darryl Reano, Akilah Akwan, Leila M. Joyce Seals, Elizabeth Long

**Building Trust Using Science Communication and Education within Diverse Communities**  
Session T156., Geoscience Education; Geoscience Information/Communication; GSA Annual Meeting 2021.

Co-chairs: Darryl Reano, Michael Buck, Ángel A. García, Jr., Leila M. Joyce Seals

**Incorporating Identities to Advance Diversity throughout Geoscience Disciplines**

Session T238., Geoscience Education; GSA Annual Meeting, 2020

Co-Chairs: Darryl Reano, Ángel A. García, Jr., Leila M. Joyce Seals

**Geoarchaeology of the middle Saint Lawrence River Valley of southern Quebec, Canada**

Field Trip, Geoarchaeology Division; GSA Annual Meeting, 2020

Co-Chairs: Laura R. Murphy, Leila M. Joyce Seals, Brendan Fenerty  
(Canceled due to COVID-19)

## AWARDS

**E-an Zen Fund for Geoscience Outreach Grant** 2019

Geological Society of America, Geology and Society Division

**Association for Women Geoscientists Chapter Excellence Award** 2019

- Awarded to Osage Chapter in recognition of our work during my 2018-2019 presidency.

**Geological Society of America On To the Future Program** 2018

**Association for Women Geoscientists Osage Chapter Service Award** 2018

**Self Graduate Fellowship Professional Development Award** 2017

**University of Puerto Rico-ExxonMobil Diversity Award** 2011-2013

## SELECT PROFESSIONAL DEVELOPMENT

**Advisory Council on Historic Preservation** 2026

Section 106 e-learning modules, and webinars

**National Park Service** 2026

NAGPRA training seminars, live webinars (starting in April)

**Teaching with Investigation and Design in Science (TIDeS)** 2024

Workshop taught by Anne Egger, Natalie Bursztyn, and Angela Daneshmand at Earth Educators' Rendezvous, Philadelphia, PA.

**Everything You Wanted to Know about Luminescence Geochronology—Mysteries of the “Illuminati” Revealed.** 2019

Short Course taught by Shannon A. Mahan, Michelle Summa Nelson, and Tammy M. Rittenour at the 2019 Geological Society of America Annual Meeting in Phoenix, AZ.

**If We Build It They Will Come: Creating Engaging and Innovative Community Archaeology Programs.** 2018

Professional development seminar taught by Alexandra Jones for the Society of American Archaeology.

<b>Adaptive Leadership</b>	<b>2018</b>
Workshop (16 hrs) taught by Jill Hufnagel, Cambridge Leadership Associates	
<b>Archaeological Soil Micromorphology Intensive Short Course</b>	<b>2017</b>
Week-long short course taught by Dr. Richard Macphail, University College London	
<b>Commemoration of the International Day of Women and Girls in Science</b>	<b>2017</b>
UN and RASIT-sponsored commemoration event in Valleta, Malta	
<b>Problem Solving &amp; Decision Making</b>	<b>2017</b>
Workshop (16 hrs) taught by Britt Hall and Eric Vannice, Kepner-Tregoe	
<b>Project Management—An Art and Science</b>	<b>2016</b>
Workshop (7 hrs) taught by Kenneth Ward, University of Kansas	
<b>Negotiation and Conflict Resolution</b>	<b>2015</b>
Workshop (14 hrs) taught by Michael Haselhuhn, University of California, Riverside	
<b>Effective Communication and Critical Thinking</b>	<b>2015</b>
Workshop (8 hrs) taught by Robert Rowland, University of Kansas	
<b>ExxonMobil Geoscience Guadalupe Mountains Field Course</b>	<b>2014</b>
Week-long course on sequence stratigraphy and interpretation of hydrocarbon plays	

## SELECT SCIENCE COMMUNICATION WORK

<b>“A Deep Time Perspective on Douglas County, Kansas”</b>	<b>2022</b>
Presentation for the first Heritage Learning Session for Douglas County, Kansas	
<ul style="list-style-type: none"><li>• Poster, ‘100,000 Years in Douglas Country’, now on display the Douglas County, KS Treasurers Office and other county government offices.</li><li>• Partial recording of the talk featured in educational material produced by the Winter Schoolhouse</li></ul>	
<b>“Geoarchaeology: Geoscience Answers to Archaeological Questions”</b>	<b>2020, 2021</b>
Featured Speaker	
<i>U.S. Earth Science Organization (USES) Junior Camp</i> (online)	
<b>“Geology and Paleontology”</b>	<b>2021</b>
Featured Geology Scholar	
<i>S.T.E.M.Ed by Bri</i>	
<ul style="list-style-type: none"><li>• Guided the design of an introduction to geology activity box, and interacted with junior scholars during the online outreach section.</li></ul>	
<b>Featured in Science Talk blog for #BlackInSciCommWeek</b>	<b>2020</b>
<a href="https://www.sciencetalk.org/a-science-blog/from-landscapes-to-people-leilas-journey-through-higher-education">https://www.sciencetalk.org/a-science-blog/from-landscapes-to-people-leilas-journey-through-higher-education</a>	
<b>“Puerto Rico Earthquakes”</b>	<b>2020</b>
Presentation on behalf of Kansas Geological Survey Outreach Program	

<b>“The Geology Project”</b>	<b>2020</b>
Presentation for the Kansas Geological Survey ‘Rocks and Rolls’ colloquium	
<b>“JEDI work and Geoscience”</b>	<b>2020</b>
Presentation and discussion with the American Institute of Petroleum Geologists, Kentucky Chapter	
<b>Skype A Scientist</b>	<b>2020-2022</b>
<b>Science communicator on Twitter</b>	<b>2020- 2022</b>
Most popular tweet reached 198,000 impressions, and ~2,000 likes.	

## **MENTORSHIP**

<b>Geoscience Education and Mentorship Support</b>	<b>2023-2025</b>
<ul style="list-style-type: none"> <li>Mentored two undergraduate women interested in science communication, scientific art, geoscience, and geoarchaeology.</li> </ul>	
<b>Emily Taylor Center for Women and Gender Equity Mentorship Program</b>	<b>2021-2022</b>
<ul style="list-style-type: none"> <li>Mentored an undergraduate woman interested in computer science and engineering.</li> </ul>	
<b>Association for Women Geoscientists- Osage Chapter Mentorship Program</b>	<b>2018-2020</b>
<ul style="list-style-type: none"> <li>Mentored an undergraduate women interested in geology and archaeology.</li> </ul>	

## **Relevant Coursework**

### ***University of Kansas, Department of Anthropology***

Topics in Archaeology: the First Americas  
Hunter Gatherers  
Lithic Technology (experimental archaeology course)  
Seminar in Archaeology  
Theory and Current Problems in Archaeology  
Anthropocene: Interdisciplinary Perspectives on Environmental Change

### ***University of Kansas, Museum Studies Program***

Museum Management  
Introduction to Museum Public Education  
Introduction to Collections Management and Utilization

### ***Adams State College, Department of Anthropology***

Fort Garland Archaeological Field School

### ***Binghamton University, Department of Anthropology***

Visual Anthropology  
Museums and the Art of Exhibitions  
Historic American Material Culture  
Lab Methods in Archaeology  
Biological Anthropology  
Quantitative Methods in Anthropology  
Human Skeleton  
Plagues, Cultures, and History  
Human Biological Variation

## Paleopathology

### **Additional Skills**

- Languages
  - English (native speaker/writer)
  - Spanish (native speaker/writer)
- Software
  - Microsoft Office Suite
  - Outlook
  - GIS (familiar)
  - Google suite
- Scientific
  - Archaeological excavation (all phases)
  - Stable isotope sample preparation
  - Particle size separation (manual and automated)
  - Scientific article preparation
  - Loss on ignition
  - Stratigraphic analysis
  - Paleoenvironmental reconstruction
- Communication
  - Writing (academic/technical and for the public)
  - Public speaking
  - Program design for scientific outreach for groups K-12 and adults
- Education
  - Teaching
  - Evaluation
  - Access, belonging, inclusion, diversity, and equity initiatives & evaluation
  -

**\*Professional references available upon request**