



GEOSCIENCE
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President's Column:

By Bob Tolliver

Welcome to 2024. It's been an interesting year for me so far in an earth science related way. I moved from North Dakota to Delaware last fall and was looking forward to warmer winter weather. It has been warmer, but it seems that every time I check it's a little bit warmer in North Dakota. We've had a couple of big snowstorms here this year and back in North Dakota...little to no snow.

What is 2024 looking like for the Geoscience Information Society? This is apparently my questions for you column. I hope you will think about these questions.

Our events will continue to be held online including webinars, Geoscience Librarianship 101, and our annual meeting sessions. Are there other events that we should be considering that would benefit the geoscience information community? What about in-person events? As of now, we are not planning on sponsoring any formal or informal in-person events at the Geological Society of America

annual meeting. With the low attendance by GSIS members in the last few years it is not really feasible to plan and schedule events. We had one informal gathering at GSA last year and that may be the last unless there is a strong interest for in-person events in the future, whether with GSA or not. Any thoughts on this would be welcome.

We are getting good attendance to our online events, especially Geoscience Librarianship 101, and I hope that we can continue to put on events that are of interest to GSIS members. We have been drawing in people from outside of the regular GSIS community to GL101 the last couple of years. Are there things that we can do to increase attendance at these events? What would you be interested in attending or participating in this year? If anyone has suggestions for future events, please let me know.

Continued on page 3...

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...President's Column continued from page 1

We have also been reducing our society's committees and other appointments to be able to get sufficient volunteers to fill all of our positions. We are always happy to have new volunteers to help support these committees. If you are interested, please let me know. A list of committees can be found here <https://www.geoinfo.org/committees/>

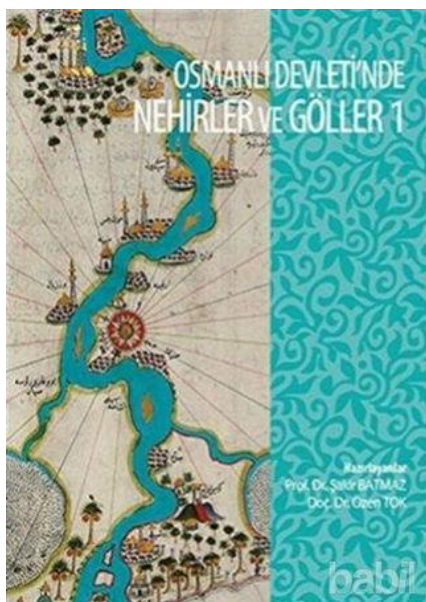
Let's talk about something else now.

Although artificial intelligence has been around for a long time, with the release of ChatGPT in late 2022, AI has quickly become a prominent theme touching on all areas of education and industry. Much of the discussion is hopeful and much of it is not. How has AI impacted your work over the last year? How has it become part of the communities that you work with? When I started my new position last fall, I was surprised, in a very positive way, at how engaged the library was, and continues to be, in

the university-wide discussion of AI. How is your organization engaging with AI? How are you using or providing information on AI in your work? Is there anything that GSIS could and should be doing to support the geoscience information community?

I guess I've posed a lot of questions. I hope that you will think about some of these questions and consider how you would like to see GSIS address these issues and how you might be able to contribute. I would be happy to hear anyone's thoughts on these questions. If you would like to offer your thoughts, please let me know at btoll@udel.edu.

Spotlight on new or interesting works:



Osmanlı devleti'nde nehirler ve goller [Rivers and lakes in the Ottoman Empire]. Edited by Sakir Batmaz and Ozen Tok. Not Yayinlari, Kayseri, Turkey, 2015. 2 v. ISBN: 9786056424946. This two-volume set consists of papers published as part of the proceedings of an international symposium held at Kayseri Eriyes University in 2013. The contents, primarily in Turkish, are organized into themes as follows: transportation, commerce, war, law, travelers' views, mills, irrigation, river projects and improvements. The publication is attractive, printed on glossy paper with high quality images and illustrations. Map images are reproduced in color and are a reminder of the colorful, artistic nature of cartography of the 16th century. Reproduced maps include works by Piri Reis – *The River Nile from its estuaries south* (1521), Matrakci Nasuh - *Eshischin* [Old Town] (ca. 1500s), and others, e.g., *Map of Aleppo* (ca. 1600). Anyone with interests related to the Danube River or the history of the Ottomans will find this set worth reviewing.

The Beauty of Collaboration: A Special and Public Librarian Team Up to Talk About Natural Hazards

By Stephanie Earls, Washington Geological Survey Library

Being a solo librarian for the Washington Geological Survey, I don't often get the chance to collaborate with other librarians. The opportunity presented itself to team up with a public librarian from the Sno-Isle Regional Library District here in Washington State. I had decided to attend the 2024 Washington Library Association (WLA) conference in Spokane at the end of February. WLA has been trying to increase membership of special librarians, and to provide more relevant content at the annual conferences. As part of my attendance, I planned to do a talk about using online tools to learn about geology and geologic hazards in Washington State. The goal was to empower librarians/library staff by introducing them to tools that would help with their geology related reference questions. The WLA conference staff asked if I would be willing to team up with another speaker who was talking about how their library supported a community during and after a wildfire. We were both on board to collaborate!

Jannah Minnix from the Sno-Isle Libraries has a very interesting work background. She has experience as a 9-1-1 dispatcher, along with her work in public libraries over the years. This made her particularly well suited to turn the public library where she worked in northern California into a support hub during and after a wildfire hit her community. Jannah planned to give a talk at WLA about this experience. Her and I met a number of times to discuss the details of what she planned to talk about, and how I could make my talk dovetail nicely off hers. In the end, we co-led a session where she talked about her public library supporting a community through a natural hazard, and I spoke about how a library could help the public prepare for hazards ahead of time through education and preparedness.



Jannah Minnix (left) and Stephanie Earls

Synopsis of my talk—I began talking about my background as both a geologist and librarian, and how I ended up working for the Washington Geological Survey. Then I briefly spoke about the non-traditional services that libraries provide to their patrons based on the unique needs of each community. Jannah's talk was a great example of that, and my talk was encouraging libraries to help prepare their communities for natural hazards. Then I dove into the three steps of preparedness: *Learn Your Hazards, Make a Plan, and Build a Kit*. I spent a few minutes showing how to use the [Washington Geologic Information Portal](#) to determine what types of hazards exist for a location (e.g. tsunami, landslides, earthquakes, etc). I also shared where to find geologic hazard maps like tsunami walk time maps. Next, I spoke about what information you might include in your emergency plan (e.g. important phone numbers, alternate routes to and from work/school,



medical information, etc). As a follow up, I mentioned checking your plan annually to make sure it was still up to date and practicing for hazards (e.g. participating in the WA Great Shakeout, or getting a group together to walk a tsunami evacuation route). Then I talked about building or buying emergency kits, and how they differ based on what it's for (e.g. non-portable home kit for sheltering in place or backpack kit for your car that is mobile). Lastly, I touched on how libraries can prepare, with a focus on *Risk Management, Preparedness, and Response and Recovery*, as outlined by the

[Library of Congress](#).

At the conference it was greatly inspiring to hear Jannah's presentation, and it really felt like my talk paired nicely with hers. What a joy it was to collaborate with someone so passionate about the work they do, and who really brought a unique and helpful perspective to our discussions which led to me including important information I may not have thought of on my own. This experience really hit home the concept of two heads being better than one!

Vice President's Column

By Elise Gowen

As I write my first column as Incoming President, I think about how much GSIS has helped me since beginning my career as an earth science librarian. The 2017 GSIS meeting in Seattle was my first geoscience conference and since then GSIS has reliably been a resource I can turn to for support, ask questions, find and share resources, and look to professional role models in what it means to be an earth sciences librarian.

We're seeing a lot of changes in the library field today, and one of my hopes as incoming president is to ensure that GSIS's programming continues to help librarians navigate these changes.

As in previous years, we are planning a professional issues forum to discuss the topics of interest to you. We will be putting out a call for topic suggestions soon.

We are also planning a separate, special professional issue forum dedicated to one topic in particular, AI. This will be an opportunity to discuss the ways that emerging AI technologies intersects with geoscience librarianship. Some particular

topics we can discuss include the role of AI in creating metadata, the role of librarians in teaching AI literacy and informing the public about the climate costs of AI, and dealing with the privacy and intellectual property questions it raises. We are very open to suggestions on what aspects of AI our members are most interested in.

We will also be planning a Common Read this year, and will be considering suggestions for book titles.

Other programming is still in the works, but we will keep you informed as the programming calendar evolves.

I'm looking forward to planning the events this year, and would love to receive feedback from anyone about their interest in the events I've suggested, or requests for other events.

I am looking forward to serving GSIS for the next three years.



Member News

News from Western Kentucky University - We just launched our new all-access subscriptions to the NYT and WSJ to campus in February, available to all WKU students, faculty, and staff. We hope it will increase usage statistics on both platforms, plus allow students and instructors to engage more with the awesome content found in both. The WKU Libraries is thrilled we can offer these awesome resources to our campus! - Ashley Orehek Rossi

Updates from ASLI - We hosted our 27th annual conference in conjunction with the 104th Annual Meeting of the American Meteorological Society. 27ASLI was held in hybrid format from Baltimore, MD. We held joint sessions with the 40th Conference on Environmental Information and Processing Technologies all week, plus ASLI-specific sessions all day on Wednesday, 31 Jan. The sessions were Keys to the TRAIL (Technical Report Archive and Image Library), Library tools and tips, Science librarianship 101, and Changes in collections. We hosted great speakers for each session. Additionally, 27ASLI conference co-chairs Ashley Orehek Rossi and Denise Wetzel presented at the 33rd Conference on Education, reintroducing educators to their libraries and the resources available to them by using their libraries. Stay tuned for updates regarding our Atmospheric Science Librarianship 101 workshop (tentatively Summer 2024) and the next conference. - Ashley Orehek Rossi

A GSIS Tribute to Sharon N. Tahirkheli

By Michael Noga, MIT (retired)

From the GSIS Special Session in Honor of Sharon N. Tahirkheli, November 16, 2003

Today we celebrate Sharon T's contributions to geoscience information access through here involvement with the Geoscience Information Society (GSIS).

Here are some highlights:

Sharon joined GSIS in 1989.

John Mulvihill, the Director of GeoRef, made annual visits to the GeoRef Users Advisory Group meeting. Sharon substituted at the 1990 meeting and regularly reported on GeoRef developments when John Mulvihill retired.

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Sharon was elected VP/President Elect in 1999.

She organized a very full program for the 2000 GSA/GSIS meeting in Reno.

- A technical session on electronic information co-sponsored by the Association of Earth Science Editors.
- A topical session called the "Electronic Information Summit."

- A database forum on geographic information systems, co-sponsored with the Western Association of Map Libraries.
- A professional issues section featuring our second International Fellow.
- A field trip to Donner Lake where the Donner Party spent the winter and an old western town.

Truly a jam-packed and very topical meeting.

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Sharon served as President in 2001. Most of the year concerned the normal presidential duties of publishing a Proceedings of the Annual Meeting, appointing committees, and dealing with issues.

But in September she was faced with the challenge of finishing her term after planes attacked the Two Towers, including one from Boston.

The 2001 GSA Annual Meeting was scheduled for just a month later in Boston. I worked with her to carry out the GSIS program with tightened security and concerns about air travel. We had less attendees, but met the challenge.

Sharon was involved in major initiatives that impacted the Society.

She was a co-founder of GeoScienceWorld. GeoRef was chosen as the core to accessing the journals. She served a 6-year term on the Board of Directors, including a stint as Secretary. She has returned to the Board as a member.

Sharon added specialized bibliographies to GeoRef, expanded the geographic coverage with joint agreements with other countries for sharing their records.

Sharon participated in the development of the Digital Library for Earth Systems Education.

She provided more access to thesauri.

I am especially grateful that she developed a core list of journals to be indexed quickly with the help of GSIS members.

In 2009, Sharon received the GSIS Mary B. Ansari Distinguished Service Award, only 2 years after John Mulvihill received his award. This shows how much the work of GeoRef was valued by the Society.

Sharon will continue her involvement in GSIS as a new officer.

We appreciated all the work that Sharon T carried out with GeoRef, several initiatives, and direct service to the Society. We could only see her for a short time at most Annual Meetings because of her commitments with AGI. Still, she was a steady presence, always with a smile.

Geoscience Librarianship 101 – Team Report 2023

By Joyce M. Shaw and Clara McLeod

On November 14 and 15, 2023, the Geoscience Information Society (GSI) held its annual GeoScience Librarianship 101 webinar training. The first half day session featured **Emily Wild**, Chemistry, Geosciences and Environmental Studies Librarian at Princeton University, **Alma Elizabeth Parada**, Earth and Environmental Sciences Librarian at Branner Earth Sciences Library & Map Collections, Stanford University, and **Linda Musser**, GIS President and Distinguished Librarian and Head of the Fletcher L. Byrom Earth and Mineral Sciences Library at Penn State University. On afternoon two, featured speakers were **Amanda Bielskas**, Director of the Science, Engineering & Social Science Libraries at Columbia University, Ajatshatru "A.J." Pathak at Hunter College, City University of New York, and Susan Powell, GIS & Map Librarian, Sciences Division - Earth Sciences and Map Library at University of California, Berkeley. Topics ranged from collection development in geosciences to DEIA in a Geoscience Library. Over 200 people registered for the training. The program guide with links to the presentation is linked here <https://libguides.lib.usm.edu/gl101>.

The Planning Committee was co-chaired by **Clara McLeod**, Earth, Environmental, and Planetary Sciences and Environmental Studies Librarian at Washington University in St. Louis and **Joyce M. Shaw**, Head and Professor, Gunter Library—Gulf Coast Research Laboratory at The University of Southern Mississippi, Ocean Springs, MS. It included **Reid Otsuji**, Data Curation Specialist and Faculty Liaison Librarian for Research Data Curation at University of California who managed the registration and **Justin Easterday**, Education, Human Sciences, Health Librarian at The University of Southern Mississippi, Gulf Park Campus in Long Beach, MS who created and maintain the program guide. Each day McLeod welcomed attendees and Shaw hosted the networking time following the sessions. The Marine Education Center at the Gulf Coast Research Laboratory managed the Zoom technology.

The GeoScience Librarianship 101 Planning Committee welcomes volunteers to plan and to present at our next webinar. Committee members invite experts in geoscience librarianship to present, recruit geoscientists who can update attendees about current research and trends in geoscience research, and manage the logistics of outreach, registration, the online program, and Zoom technology. Being a part of GL 101 as a planner, a presenter or attendee is an opportunity that is fun and educational whether you are a new or long-time member.

The Planning Committee thanks its presenters and GIS for their support of this continuing

education activity. We solicit feedback and are grateful for our attendees who bring so much to sessions.

New Open Textbook

<https://open.umn.edu/opentextbooks/textbooks/1595>



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Microbiology for Earth Scientists

[\(0 reviews\)](#)

No ratings

Matthew F. Kirk, Kansas State University

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- Part 2: Environmental Controls on Microorganisms
- Part 3: Impacts of Microbial Activities
- Appendix A: Thermodynamic Data for Select Reactions
- Table of Figures

Ancillary Material

[Submit ancillary resource](#)

About the Book:

Microorganisms are the most abundant form of life on Earth and in recent decades it has become increasingly clear that their collective activities are one of the dominant forces shaping the Earth.

This book provides earth scientists with an introduction to microbiology and a look at the ways microorganisms are important to their area of expertise. The first part of this book summarizes some basic information about microorganisms, including a discussion of their diversity, physical properties, and metabolisms. From there, the second and third portions of the book are organized around the two-way interactions between microorganisms and their environments. The second portion of the book considers the ways that environmental conditions help determine distributions of microbial activity, including chapters focused on thermodynamic, kinetic, and biological factors. The third and final portion of the book examines the impacts of microbes on their environments. These impacts are placed within the context of earth system science, with chapters focused on impacts to the lithosphere, atmosphere, and hydrosphere. In these chapters, emphasis is placed on microbial impacts to greenhouse gas levels and the quality of water resources, underscoring the relevance of microbiology to environmental concerns of keen interest in the earth science community and beyond.

This book is specifically designed for earth science students and can provide a helpful free resource for students in Geomicrobiology courses. However, portions of the book can also have value for students and professionals from any field who are interested in environmental microbiology.

Book Review

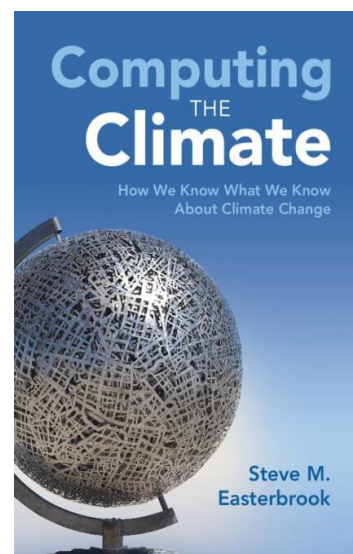
Review: *Computing the Climate: How We Know What We Know about Climate Change.*

By Christopher A. Badurek

Easterbrook, S.M. (2023) *Computing the Climate: How We Know What We Know about Climate Change*. ISBN: 9781316459768, 350 pages, \$34.99.

<https://doi.org/10.1017/9781316459768>

Although many interested in the global climate change challenge have viewed climate model visualizations, how many can explain how the models work in practice? This text reviews the development of climate models from classic physics research to current supercomputing approaches in a highly readable style. The author, an applied scientific programmer, deftly explains dense content on the evolution of climate models and computational approaches. The first four chapters focus on the physics of climate and weather prediction as well as the evolution of computing from ENIAC of the 1950s to present. The final chapters provide context of the climate modeling community with software engineering case studies from leading research labs in the US, UK, France, and Germany. The book concludes with the role of climate modeling within the IPCC efforts and in policymaking. I highly recommend this text as a welcoming introduction to weather forecasting and the challenges of creating coupled climate models. It should be a required resource for undergraduate and graduate students in physics, earth systems sciences, and physical geography. In addition, it could also inspire students in computing disciplines to apply their skills to addressing climate change.



Progress in Open Access in the Geosciences

By Linda Musser

The open access movement had its beginnings in the late 20th century and grew in significance over the last two decades. Since those early years, governments have instituted open access requirements for funded research and many academic institutions have developed open access policies. But how much progress has really been made? I decided to do a quick analysis, based on journal articles indexed in *Web of Science*, in the subject area of geology. I examined the percentage of open access articles of all indexed articles, by five-year intervals, and found that there has been significant progress made, with the rate more than doubling over the last 10 years alone. A more detailed analysis would be required to determine all the factors that contributed to this increase but it is reassuring to know that the open access movement has been successful in improving equitable access to geoscience information.

Date range	Percent of open access articles
2020-2024	48%
2015-2019	37%
2010-2014	22%

GeoScienceWorld Celebrates 20 Years

GeoScienceWorld Celebrates 20 Years of Advancing Geoscience Collaboration and Scholarly Publishing

GeoScienceWorld (GSW), a pioneer in collaborative scholarly publishing within the geoscience community, proudly marks its 20th anniversary. Established in 2004 by leading global geoscience societies, GSW has continually evolved to better serve the discipline and community through collaboration. Today, GSW provides researchers around the world with a single source of access to preeminent scholarly journals and eBooks with specialized and map-based search and discovery capabilities and links to a broad scope of curated earth science research. As a unique and trusted nonprofit, GSW returns 93% of net revenue to membership societies to achieve their scientific missions, and since inception has distributed over \$60 million back to its publishing partners.

GSW's founding mission was to provide a non-profit aggregate for peer-reviewed society research online. GSW's structure, inspired by the BioOne model, involved funding and governance from founding societies. The goal was to create a cooperative advantage, uplifting smaller organizations with the support of their larger counterparts. GSW emerged as an aggregator, offering a single platform for access to thousands of articles, easing the burden on libraries and researchers. What began as a world-class digital platform for journals has expanded to include eBooks, diverse content types, society services such as membership, technology, and administrative support, and Open Access publishing.

"Our 20th anniversary stands as a great testament to all those involved in establishing and fostering the growth of GSW over the years. The journey from a small start-up to a highly respected resource with over 39 society partners serving and supporting more than 250,000 researchers globally is a significant achievement," said GSW CEO Phoebe McMellon. "As we look to the future, our unwavering commitment to innovation and collaboration will enable us to embrace new opportunities to further our mission and advance geoscience research and knowledge on a global scale."

Colin P. North, GeoScienceWorld Board Chair and Senior Lecturer in Geology at the University of Aberdeen also shared his thoughts on the milestone, saying, "The 20th anniversary of GeoScienceWorld is a celebration of collaborative achievement and dedicated service to the global geoscience community. As a nonprofit organization, GSW is truly unique and serves as a guiding light, fostering collaboration, disseminating knowledge, and championing the scientific pursuits of our member societies."

GSW's founding societies included the American Association of Petroleum Geologists (AAPG), American Geosciences Institute (AGI), Geological Society of America (GSA), Geological Society of London (GSL), Mineralogical Society of America (MSA), SEPM Society for Sedimentary Geology, and the Society of Exploration Geophysics (SEG). Faced with the challenge of providing secure and accessible digital journal content, together they envisioned shared technologies, economies of scale, and global dissemination to extend benefits that might otherwise be limited to commercial deals, potentially jeopardizing societies' long-term independence as publishers.

As GSW enters its third decade, the organization remains dedicated to fostering collaboration, supporting scholarly societies, and advancing geoscience knowledge worldwide.

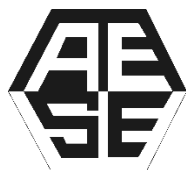
Video: GeoScienceWorld: Celebrating 20 Years of Collaboration and Discovery

<https://community.geoscienceworld.org/gsw-20th-anniversary/> OR

<https://www.youtube.com/watch?v=eB1liDA08n8&t=7s>

About GeoScienceWorld GeoScienceWorld (GSW) is a collaborative, nonprofit organization that provides access to a comprehensive collection of geoscience literature. Founded in 2004, GSW is committed to advancing geoscience research, promoting collaboration among societies, and supporting the independent publishing programs of its founding societies. For more information, visit www.geoscienceworld.org

Association of Earth Science Editors 58th Annual Meeting



Association of Earth Science Editors 58th Annual Meeting October 2 to 6, 2024 – Olympia, Washington

Mark the date! The 58th annual meeting of the Association of Earth Science Editors is set for Olympia, Washington, October 2 to 6, 2024. Meeting headquarters will be the DoubleTree by Hilton Olympia, 415 Capitol Way N. Details are still in the planning stage but will be posted on AESE's website (www.aese.org) as they become available. The meeting is open to anyone and offers two days of technical sessions, a day-long field trip to nearby sites of geologic interest, including the mysterious Mima Mounds, and numerous opportunities to network with other editors, publishers, science communicators, educators and earth-sciences professionals. Please contact meeting organizers at aeseolympia2024@gmail.com if you would like more information about the meeting.

Mount Rainier stands tall in Mount Rainier National Park, located about 60 miles east of Olympia. Photo credit: Susan Schnur.

