

PCPG Newsletter

Communicating Key Information & Concerns
to Geologists and Environmental Professionals

Issue 4 / 2021

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MESSAGE FROM THE PRESIDENT

IT'S BEEN AN HONOR

To the PCPG community,

This is my last message as President of PCPG, since my term ends this year. It has been a true honor to serve such a quality organization as PCPG.

When thinking about the past two years, the old adage about raising children comes to my mind: the days are long, but the years pass so quickly. Covid upended many aspects of our lives, both personal and professional, and sometimes routine things had to be reconfigured. We, as an organization, had many long days investigating virtual education events and designing our new website, comparing virtual platforms, testing procedures and changing protocols, all of which came with lots of trial and error along the way. We traded travel and food expenses for a virtual webinar host and digital storage costs. We also quickly learned that a conference call was no longer adequate for our monthly board of director calls; instead, we realized the importance and need to visually connect with each other.

These two years of pronounced change have flown past yet we accomplished a tremendous amount. Some of these accomplishments include: a new updated website, virtual education (with topics as different as Oil & Gas to urban watershed management, from landslides to water law, from soils to mining to karst to sampling Mars!), the addition of podcasts, virtual student visits and career fairs, a series on "What Does A Geologist Do," several new resources for students, and an online store of webinar replays. We increased engagement with our organization's events by 59% in 2020 and another 47% this year. Overall membership to the PCPG increased by 10%! Several companies even saved 5-20% by consolidating single, individual memberships within the company into a corporate bundle, a true cost saving measure for everyone. I am very proud of our accomplishments in these unprecedented times and how our volunteer community pulled together to build a stronger organization.

Earlier this year, I conducted an informal poll of a dozen or so PCPG members asking for their top three reasons for staying with the PCPG. Many said our continuing education and discounted PDH credits paired with the top-quality courses taught by experts covering a variety of geologic topics. Some members said PCPG has helped



Continued on Page 2

UPCOMING PCPG EVENTS

November 16, 2021

Geology and Geomorphology of the
Youghiogheny River and Laurel Highlands
Webinar: 2:00 - 3:00 PM

December 7, 2021

Using Petrologic, Geochemical, and
Structural Analyses to Unravel the History
of the Ultramafics of Southeastern
Pennsylvania
Webinar: 1:00 - 2:00 PM

March 29, 2022

Hydrostructural Methods in bedrock
Aquifer Characterization and Remedial
Decision Making
(405 mins.)
Coatesville, PA

April 19, 2022

Essentials of Borehole Geophysics with
Field Demonstration
(300 mins.)
Middletown, PA

FOR A COMPLETE LIST OF UPCOMING
EVENTS OR TO REGISTER ONLINE,
CHECK OUR [HOME PAGE](#) EVENT
CALENDAR, OR VISIT [PCPG'S
COURSES AND EVENTS](#) WEB PAGE.

PRESIDENT'S MESSAGE *Continued from Page 1*

them stay up-to-date on professional news from within the geologic profession and new and exciting happenings around the state. One valued member-only feature on our website is our monthly update to the legislation tracker. Another responsibility of the organization is vetting numerous requests from national and state organizations to circulate the most pertinent information through our newsblast, which reaches over 2,700 people.

Another common theme in the feedback I received was how PCPG advocates for and gives back to the geologic community and profession. As an organization, PCPG not only holds numerous outreach programs with college students but our members are often invited to participate on statewide stakeholder committees working on various issues. During the past two years, we've also written many letters in support of proposed legislation, PA's K-12 science standards, supporting geologic projects for National Science Foundation Grants and for individual members nominated for awards, statewide committees or municipal boards.

Overall, the number one reason members said that they stick with PCPG is the networking opportunities. Half the group cited networking to establish connections that could lead to a potential new job while the other half mentioned feeling a sense of community and engaging with fellow knowledgeable professionals. Although I wish I had been able to shake hands and meet face-to-face with more members in the past two years at our normal in-person events, it was fascinating virtually "meeting" so many new and knowledgeable professionals during my term.

I highly encourage anyone looking to give back to the professional geologist community or who wants to enjoy some comradery amongst your fellow geologists to become more involved with PCPG and our various initiatives today! Please send me an email at either bjd641@gmail.com or [PCPG's office](#) and let us know what you liked/disliked and what we can improve within our organization for next year. Also, to all interested in taking a larger role in the organization, consider running for a seat on our board of directors. We will have several open seats at year's end; new faces and creative, innovative ideas are always encouraged and welcome!

[Contact me](#) if you have questions or want to talk about filling a position on the board of this great organization. I plan to stay involved within the PCPG, even though my President's term is ending, and I really look forward to seeing familiar and new faces at a PCPG event soon.

Always proud to serve the PCPG community,



Barbara J. Dunst, P.G., C.P.G.

PCPG SUPPORTS BUDDING GEOLOGISTS

Vincent Carbone, P.G., Chair
PCPG Outreach Services

PCPG continues to help undergraduate and graduate students navigate through the myriad of career opportunities that are available. Recently PCPG attended the Lafayette College virtual career fair held on October 7, 2021. During the career fair, PCPG interacted with several students about their career path in the chat room. Many were interested in how geologists interact with engineers and what pathways were available to geologists who like geophysics. Others were interested in sustainability and coastal geology practices. In summary, our booth was a success having over 150 visits, with 50 unique clicks in the three hours available to us. The booth also had links to the PCPG website where our informational documents are located. Dozens of people explored our salary and geoscience career information, our "What Does A Geologist Do?" series, and how to become a Professional Geologist information. It is part of our mission to help the new generation of geoscientists understand the importance of Geology for the health, safety, protection and well-being of the community. PCPG is happy to support and educate youth in these endeavors.

This quarter PCPG hosted information sessions at West Chester University and Indiana University of Pennsylvania (IUP). At each we provided an hour-long presentation discussing the importance of the geologic profession and how to obtain a Professional Geologist license. At IUP PCPG led a discussion with students in their Environmental Geology class on a geologist's role in Environmental Permitting and new and emerging contaminants like per- and polyfluoroalkyl substances (PFAS).

If you know of any K-12, college or organization that may like to discuss Geology or the application of geology, please reach out to Vincent Carbone at 610-972-8223. PCPG also welcomes member participation on the Outreach committee to support these presentations and provide your own experience to the conversation. Any and all levels of experience are welcome!

...I am a freshman at Lafayette College. We chatted last Wednesday evening during the Virtual Career Fair. I wanted to thank you for taking the time to answer my questions and to provide some insight into the environmental field. I enjoyed learning about PCPG, especially how engineering is utilized to deal with the aftermath of natural disasters...

~Lafayette College career fair student attendee



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THIRD QUARTER 2021 PHOTO CONTEST

by Emily Glick, P.G. and Kurt Frieauf, P.G.

PCPG recently concluded the Third Quarter 2021 photo contest. The theme was “Geological Inspiration and Achievements.” Our sole entry was received from the highly accomplished Dr. William Brice!

Dr. William Brice’s photo is of the upper contact between the Jurassic age dolerite (diabase) intrusion and the Permian age sediments. This cut is along the highway between [Hobart and Kingston](#) (Tasmania, Australia). The diabase (Jd on [this geologic map of Australia](#)) is widespread in eastern Tasmania – part of the massive eruption event that formed the [Karoo-Ferrar large igneous province](#) whose volcanic gas emissions are one proposed cause of the lower Jurassic extinction event. Isn’t it remarkable how concordant the hanging wall of diabase sill is with the overlying sedimentary layers? The intruded Permian sediments are a glaciomarine sequence of mudstones, sandstones, and limestones containing abundant dropstone pebbles that fell to the ocean floor from melting glacial ice as [Permian continental glaciers](#) calved into the sea and floated into warmer waters.



It was seeing views like the one in the photograph that moved Dr. Brice in 1963 to change from teaching high school physics in Taroona to becoming a professional geologist. Maybe being a geologist is something with which we’re each born, but which only germinates when we’re exposed to the “sunlight” of nice outcrops?

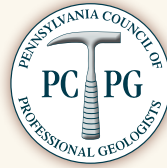
Dr. Brice originally earned his B.S. in Florida in 1958 before moving to Australia to teach high school physics. He finished his educational doctorate work at the University of Tasmania, then moved back to the U.S. where he ultimately earned his M.S. and Ph.D. at Cornell University and served as a professor at the University of Pittsburgh at Johnstown (1971-2005). He is now a professor emeritus and an author who writes non-fiction books about the history of geology and the oil industry. To check out his recent work and publications visit his website at: <https://williamrbrice.com/>. Thank you, Dr. Brice, for sharing this photo and some of your story. Cheers!

Continued on Page 5

PHOTO CONTEST *Continued from Page 4*

Looking ahead: Due to dwindling participation in the quarterly photo contest we plan to announce an **Annual Photo Contest** in the summer of 2022 through the eBlasts and Newsletter.

Many thanks to those who participated in the quarterly photo contests over the last year. Your photos and the stories behind them have provided PCPG members with some entertainment and inspiration through these uneasy times. As PCPG rolled out a new website this year, we were grateful to be able to use many of the photo contest photos as featured content. Until then, be well and don't forget to take some pictures!



PCPG is accepting nominations for candidates to serve on the PCPG board of directors to a three year term ending December 31, 2024.

To be considered for the ballot you must be a PCPG member in good standing with an Individual/Academic, Government, or Corporate membership, and complete and return a **Board Candidate Interest Form** by 5:00 PM, Wednesday, December 1.

Questions?

Email **Tiffani Doerr, P.G.**, PCPG's President Elect, or contact anyone currently serving on the **PCPG board**.

NEW PCPG **CORPORATE MEMBERS**

Please join us in welcoming our newest PCPG Corporate Members:

Carroll Engineering Corporation

Langan Engineering & Environmental Services

Interested in becoming a PCPG Corporate Member? Visit our [Join PCPG](#) page, then [download](#) the Corporate Membership application. Bundling multiple Individual Memberships into a single Corporate Membership provides up to 25% discount for each professional enrolled. Telephone PCPG by dialing (717) 730-9745 for more information.

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SUPPLYING CLEAN DRINKING WATER IN A RURAL PENNSYLVANIA VILLAGE

by Jennifer L. O'Reilly, David V. Linahan, D. Matthew Lyon, and Tim Uhler
(Groundwater & Environmental Services, Inc.)

The identification of a trichloroethylene (TCE) plume impacting groundwater in the Village of Intercourse, Pennsylvania pressed the need for immediate investigation and action. Residents in this local tourist and commercial hub have relied on groundwater as their sole source of potable water for over 250 years. Since there were no known potentially responsible parties (PRPs), the Pennsylvania Department of Environmental Protection (DEP) assumed responsibility for the groundwater remedy under the Hazardous Sites Cleanup Act. Groundwater & Environmental Services, Inc. (GES), as a statewide environmental consultant for DEP, was tasked with investigating the chlorinated plume in the fractured, karst bedrock setting and implementing a permanent alternative water supply for the community. This state-lead water supply project is the first of its kind in Pennsylvania, and it highlights the importance of the Hazardous Sites Cleanup Fund and the need for an on-going supply of resources and funding to address environmental concerns across Pennsylvania.

“Residents...have relied on groundwater as their sole source of potable water for over 250 years.”

GES managed the design, construction, commissioning, and initial system operation of a new public water supply system servicing over 450 residential and commercial properties. Components include three water supply wells, a 900,000-gallon-per-day water treatment plant, 500,000-gallon water tower, ten miles of distribution pipeline, and water service connections to the individual properties. During the installation of the water service connections, and again during abandonment of the private potable wells, on-site personnel continuously interfaced with the private homeowners, local business owners, and local municipality personnel. Maintaining strong public relations was critical to the continued success of the construction activities.

As they say, “it takes a village,” and this multi-faceted project benefited from close coordination between DEP, Leacock Township officials, GES, and a wide range of contractors to achieve the goals of supplying clean drinking water to the community, ensuring the health and safety of the project team and the public at large, and being cost-effective and responsible stewards of state funding. DEP formally dedicated the system to Leacock Township in a public ceremony on September 14, 2021.



Left to right: DEP Southcentral Regional Director Rod Nesmith, DEP Secretary Patrick McDonnell, GES Senior Operations Manager Jennifer O'Reilly, and Leacock Township Supervisor Frank Howe raise a glass of clean drinking water and toast the dedication of the Leacock Township Public Water System. [Photo Courtesy of PADEP]



PCPG 2022 Corporate Renewals will be emailed in early December to the primary contact on the Corporate membership.

Be sure to make necessary changes on the form before returning according to instructions. This is also an ideal time to consolidate and bundle other Individual PCPG memberships within your company.

KIDS' GEOLOGY EDUCATION: FOSSIL CAST PROJECT

Modified from: [Science Kids](#)

Find an interesting object and set it in stone, letting its impression live on in the form of a fossil.

Have fun making your own fossil and learning how scientists use them to unlock secrets of the past, including those that provide a remarkable insight into life in the age of dinosaurs.



What you'll need:

- Modeling Clay (Plasticine, Sculpey, etc.)
- Two paper cups
- An object that you would like to use as the fossilized impression
- Plaster of Paris
- Water

Instructions:

1. Flatten a ball of modeling clay until it is about 2 cm thick while making sure the top is smooth.
2. Put the plasticine inside a paper cup with the smooth side facing up. Carefully press the object you want to fossilize into the plasticine until it is partially buried.
3. Carefully remove the object from the plasticine. An impression of the object should be left behind.
4. Pour half a cup of Plaster of Paris into the other paper cup. Add a quarter cup of water to the plaster and stir until the mixture is smooth. Leave it for around two minutes.
5. When the mixture has thickened pour it on top of the plasticine in the other cup. Leave the mixture until the plaster has dried (leave it for 24 hours if you want to be sure).
6. When the plaster has fully dried, tear away the sides of the paper cup and take out the plasticine and plaster. Keep it in a warm dry place and enjoy your very own fossil.

What's happening?

Fossils are extremely useful records of the past. In your case you left behind an impression of an object you own, but fossils found by scientists around the world can date back to before there were dinosaurs! These fossils allow paleontologists to study what life might have been like millions of years ago. Fossils such as the one you made can leave delicate patterns and a surprising amount of detail.

FUN FACT!

The word fossil comes from the Latin *fossilis*, which means, "dug up."

Trilobites, which are relatively common fossils, have been extinct for 250 million years!



Further research and information:

Research more about fossils, how they are formed, the study of paleontology, petrification and more at Science Kids [facts about fossils page](#).

DEADLINE FOR OUR NEXT NEWSLETTER IS JAN. 10, 2022

For more information, contact our PCPG Newsletter Editor and Communications Committee Co-Chair - Tiffani Doerr, P.G., by [eMail](mailto:tdoerr@pcpg.org) or telephone at 302-477-1305.

2021 PCPG ASSOCIATE AND CORPORATE MEMBER SPONSORSHIP RATE

(Rates are listed as amount per issue)

Size	Commitment:	1x	4x
1/2 Page Horizontal (8" x 4.7")		\$225	\$150
1/2 Page Vertical (3.875" x 9.375")		\$225	\$150
1/4 Page Horizontal (4.7" x 3.875")		\$140	\$95
1/4 Page Vertical (3.875" x 4.7")		\$140	\$95
Business Card (H or V)		\$75	\$50

2021 OTHER SPONSORSHIP RATES

(Rates are listed as amount per issue)

Size	Commitment:	1x	4x
1/2 Page Horizontal (8" x 4.7")		\$300	\$240
1/2 Page Vertical (3.875" x 9.375")		\$300	\$240
1/4 Page Horizontal (4.7" x 3.875")		\$185	\$150
1/4 Page Vertical (3.875" x 4.7")		\$185	\$150
Business Card (H or V)		\$100	\$80

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AND MUST BE PRINT-READY, 300 DPI**

FILE FORMATS ACCEPTED: .PDF, .TIF, .JPG, OR .PNG

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