

# Bulletin

of the Eastern Section of the National Association of Geoscience Teachers

**STILL DEALING  
WITH THE  
CORONAVIRUS  
EDITION**

Volume 70, Issue 3: Summer 2020



## From the President

by **Michael O'Donnell**

*Blue Ridge Community & Technical College*

From the (by default) President:

I hope that everyone has been able to adjust to all that has been going on in education since the pandemic began in March. There is not much that I have to say for this issue. As we head into the Fall semester of school, each of us faces a different set of challenges. For me, it is adapting to an all virtual environment. For others, it is smaller class sizes and masks. But, as I stated in my spring message, as educators we know how to adapt. And one could say, in the earth sciences we see adaptation for survival as the modus operandi of life from the very beginning. The phenomenal aspect of these times is the way in which we have stepped out of our comfort zones and helped each other.

I wish everyone a healthy and safe school year. I hope that no one experiences any outbreak in their school if you are meeting in a live format. Wear a mask and wash your hands!



## OEST winners

by **Christopher Roemmele**

*West Chester University*

Eastern Section OEST

**Bonnie Keller**, Colgan HS, Manassas, VA

Bonnie is one of the founders of the VA Earth Science Teachers Association (VESTA), and the current Vice President. She is also a member of the NESTA, NAGT, VAST, and NSTA. She is also on the board of the statewide Virginia Herpetological Association. She has created a set of Earth Science Reference Tables for her students to use, developed numerous alternative and authentic assessments for her students to make earth science come alive and show its every day relevance. Perhaps part of Bonnie's teaching philosophy about earth science can be summed in the poster that hangs outside her classroom, "Since you live here, shouldn't you know how it works?"

Pennsylvania OEST – **Donna Kurtis**, Twin Valley Middle School, Elverson, PA

Donna co-authored an article for The Earth Scientist in 2019, "Engaging Students in First- and Second-hand Geoscience Data Exploration to Deepen Their Understanding of the Nature of Science" which was action research she performed in her classroom. She was selected for the Eastern Pennsylvania Innovation Catalyst (EPIC) Master Teacher program under a PASmart grant, especially targeting rural and socioeconomically disadvantaged populations, and is part of UPenn's Graduate School of Education Experiences in Applied Computational Thinking (EXACT) and Computer Science/STEM master educator program.

Donna has presented workshops at BCIU and Kutztown school districts on Computational Thinking Across the Disciplines.

Virginia OEST – **Kristina Brody**, South County HS, Lorton, VA

Kristina previously worked as an editor for Science News and *Geotimes* magazines (1998-2003). She has developed and promoted lessons bringing Get2Green, part of the National Wildlife Federation's Eco-Schools USA program, into AP Environmental Science classrooms, a course that since she started teaching it, has seen enrollment increase four-fold. She has participated in workshops with the Chesapeake Bay Foundation, incorporated ArcGIS into her lessons, and coaches/advises her school's National Honor Society, Ecology Club, and Science Olympiad team.

West Virginia OEST – **Alicen Patton**, Moorefield School, Moorefield, WV

Alicen is trained in the StarLab, 3-D printers, robotics, various engineering design kits, and rocketry and develops a variety of inquiry-based lessons to engage and challenge her students, presenting these at WV EST workshops. She has completed Earth and Space Science Passport Teacher Professional Development, and coaches the First Lego League and WEX Robotics teams. Her inquiry-based approach, positive attitude and patience, technological and leadership skills are noted by colleagues and students alike.

New York OEST – **Kevin Nohejl**, Shoreham-Wading River HS, Shoreham, NY

Kevin has been awarded grants from Cornell Cooperative Extension for his work in a course he developed Long Island Sustainability, which incorporates soil science, human impact, alternate energy forms and landscape/agriculture planning, aquaponics, phytoremediation & bioremediation, biofuels, grafting & propagation, and an environmental stewardship project. He has also received a grant for his work with the Student Spaceflights Experiment Program. He has fostered science community partners with the Cornell Cooperative Extension, Brookhaven National Laboratory, and United States Geological Survey, encouraging a student-driven, constructivist learning environment inclusive of all learners.



# Outcrops #2



by **Steve Lindberg**

*University of Pittsburg at Johnstown*

Beginning in Washington, D.C. and extending for 184.5 miles to Cumberland, Maryland, the Chesapeake and Ohio Canal National Historical Park traverses numerous geologic provinces and exposes spectacular geologic formations along the tow path. A few miles west of Hancock, Maryland the tow path along the Potomac River enters the "Round Top Hill" cut, which has been described as providing some of the most beautiful folds and structures within the Appalachians. The prominent anticline known as the "Devil's Eyebrow" within the calcareous shales and limestones of the upper Silurian Bloomsburg Formation is located at mile marker 127.5. It is well exposed and within a few hundred feet of the abandoned Round Top cement plant located just to the west. The view is from the tow path looking roughly N-NE.

Photographed by Steve Lindberg, June 2019.



**You can contribute to the *Bulletin*!**

Consider writing up your recent teaching triumphs, field trip locations, geoscience-themed travels, or essays. This issue offers a wealth of examples you might emulate for future editions of **our** newsletter.

# SUMMER 2020 EDITION OF "FROM THE ARCHIVES"

by Steve Lindberg,

University of Pittsburgh at Johnstown  
Eastern Section Archivist

Going through the boxes of archived documents from the eastern section always provides some surprises and wonderful insights into the very early years of NAGT. Reproduced here is a typed letter from the section secretary-treasurer to potential members describing the current status of the organization along with an invitation to join. Also included is the handwritten treasurers report for the 1956-1957 year. The fall 2020 edition of "Archives" will include the unique field trip guide that was found along with these documents.

Enjoy.



## ASSOCIATION OF GEOLOGY TEACHERS

EASTERN SECTION

### Treasurers Report

April 5, 1956 to April 19, 1957

#### Income

Cash on hand on April 5, 1956	\$ 266.59	
Receipts from section dues	133.00	
Receipts from National Dues overpayment	266.00 .15	
Total Income	665.74	\$ 665.74

#### Expenditures

To Higgins and Allen (National Dues)	\$ 266.00	
Postage	33.36	
Addressograph Multigraph	7.80	
Stationery	11.25	
Postal Scale	3.95	
Return of overpayment	.15	
	322.51	322.51

Net balance on hand April 19, 1957 \$ 343.23  
Potential assets of current Dues of 9 members outstanding 9.00

Assets on March 1953 - \$123.44  
April 1954 - 162.34  
April 1955 - 211.58  
March 1956 - 266.59  
April 1957 - 343.23

Expenses per member  
1954-55 - 42¢ per member  
1955-56 - 41¢ per member  
1956-57 - 43¢ per member.

FROM  
THE  
ARCHIVES



ASSOCIATION OF GEOLOGY TEACHERS

Eastern Section

February 7, 1957

FROM  
THE  
ARCHIVES

Dear Sir,

The Eastern Section of the Association of Geology Teachers was established in 1951 with 59 members. It has now grown to a present membership of 111 in 33 colleges in the states of N.Y., Pa., N.J., Del., Md., Va., W.Va., and the District of Columbia. The colleges represented are:

Alfred University  
Allegheny College  
Barnard College  
Brooklyn College  
Bryn Mawr College  
City College of New York  
Columbia University  
Cornell University  
Dickenson College  
Franklin and Marshall College  
Hamilton College  
Hunter College  
Lafayette College  
Lehigh University  
Madison College  
Marshall College  
New York State Teachers College

Pennsylvania State University  
Princeton University  
Rensselaer Polytechnic  
Rutgers University  
Rutgers University (Newark)  
St. Lawrence University  
Syracuse University  
The American University  
Union College  
University of Pennsylvania  
University of Pittsburgh  
Vassar College  
Wagner College  
Washington and Lee University  
Waynesburg College  
West Virginia University

The annual dues are \$3.00. This includes a subscription to the Journal of Geological Education. The National group meets once a year and the Eastern Section meets twice, at a formal meeting with papers presented and secondly at an informal meeting at a local college or university to observe the workings of the Geology Department.

I am enclosing some literature about the organization including an application blank. I am sure that you would feel it most beneficial if one or more members of your staff would join the Association of Geology Teachers.

Yours sincerely,

Maurice B. Rosalsky  
Secretary-Treasurer  
Eastern Section  
Association of Geology Teachers

# The Silence of Canadian Cities: The Seismology Impact of Covid19 Lockdown

by Artash Nath

NAGT student member (grade 9), Toronto, Ontario

COVID-19 may have closed school doors but not the windows to education. During this time, I went online and downloaded 10 billion data points from 6 seismic stations across Canadian Cities (Toronto, Montreal, Ottawa, Calgary, Edmonton, and Yellowknife) from the IRIS website. I then used my Python skills to analyze changes in seismic vibrations across the cities.

From the analysis, it was evident that lockdown had an impact on seismic vibrations in almost all the cities I analyzed. In all the cities I analyzed, except Ottawa, the seismic vibrations decreased between 14% – 44% with the biggest decrease in Yellowknife in the North-Western Territories. In the 3 densely packed cities of the population over 1 million -Toronto, Montreal, and Calgary, the seismic vibrations dropped by over 30%. In the case of Ottawa (the capital of Canada), the seismic vibrations actually increased by 8%.

The preliminary results of the study are available [here](#).

I have also created a comprehensive Online Tutorial using Jupyter Notebook for other students



Calgary, AB  
Montreal, QC  
Toronto, ON

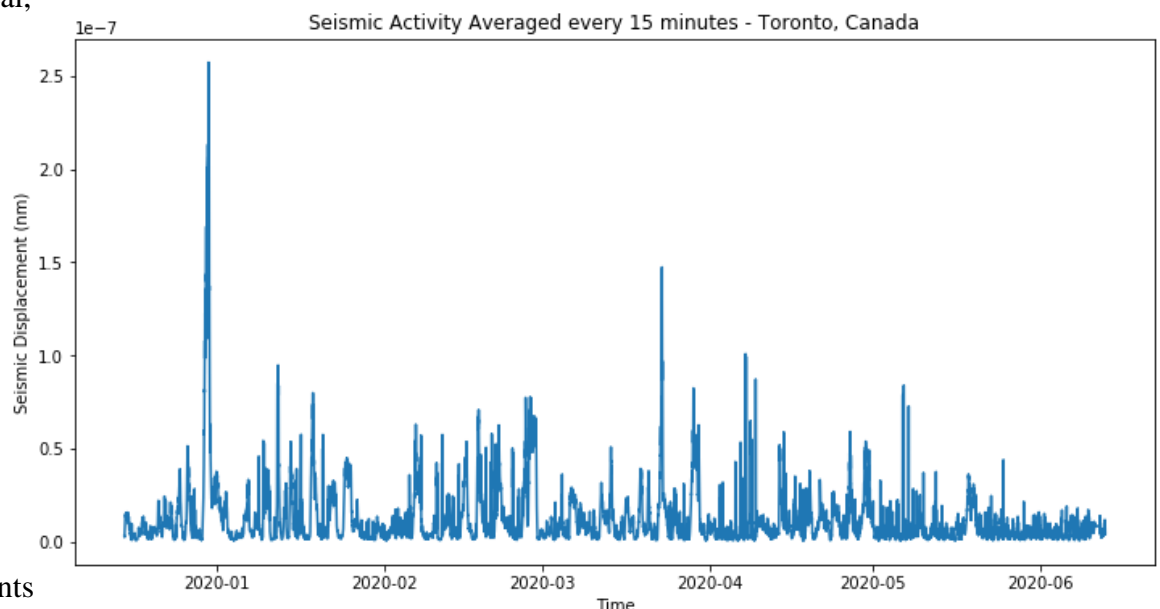
Edmonton, AB  
Ottawa, ON  
Yellowknife, NWT

and researchers to analyze seismic vibrations from their cities.

The tutorial is available on my GitHub: <https://github.com/Artash-N/COVID19-Impact-on-Seismic-Activity>

The study was appreciated by the Canadian Government's Research Agency NSERC: [https://twitter.com/NSERC\\_CRSNG/status/1287825886679650304](https://twitter.com/NSERC_CRSNG/status/1287825886679650304)

If any researcher would be interested in furthering / improving my ongoing study, I would be grateful.



# And the award goes to...

**by Christopher Roemmele**  
*West Chester University*

Greetings to all educators of geology and earth science. I am Christopher Roemmele, your new Awards Chair for NAGTES. I teach at West Chester University in West Chester, Pennsylvania, and taught high school/middle school earth science for 15 years in New Jersey. I know how hard we all work as teachers and getting a proverbial pat on the back and thank you is nicely motivating. Perhaps you work with or know someone whom you feel deserves this recognition. In that case, I strongly urge you to nominate this person for one of our Eastern Section awards, or one of the National NAGT awards. The Eastern Section meeting is a wonderful time to heap praise upon those individuals who have excelled in the work and promoted geoscience education.

Information about all our Eastern Section awards can be found on our section website. Please note the deadline is being/has been changed to February 1! So start thinking and get those forms filled out now! Completed nomination forms should be sent to me at [croemmele@wcupa.edu](mailto:croemmele@wcupa.edu). However, you must place your nomination via the online forms found on the National NAGT web site at <http://nagt.org/nagt/programs/oest.html>

Here is a list of our awards. Perhaps there is one with your (or a colleague's) name on it!



## **OUTSTANDING EARTH SCIENCE TEACHER**

The OEST Awards program was adopted by NAGT in 1971. Its purpose to honor pre-college teachers of earth science, their excellence and commitment to teaching and teaching earth science

## **DIGMAN AWARD FOR EXCELLENCE IN GEOSCIENCE EDUCATION**

The Digman Award is designed to recognize an individual who works to bring geoscience to the general public. We look for individuals who are not teachers, but work in a capacity that educates the general public in areas of the geosciences. Museum directors, curators and assistants, state survey employees, mine and quarry public relations people would all qualify for this award.

The nomination information for this award is also on our section website.

## **JAMES O'CONNOR MEMORIAL FIELD CAMP SCHOLARSHIP**

The James O'Connor scholarship is given to a college geology or earth science major who is attending a geologic field camp course (typically over the summer) as part of their college degree program. The \$500 scholarship assists the student in covering the expenses of their field camp. Nominate a student currently enrolled in your geology program. Nomination information appears on the section website.

## **DISTINGUISHED SERVICE AWARD FOR THE EASTERN SECTION**

The Distinguished Service Award is given to a member of the Eastern Section (still actively teaching or retired) who has, over the years, contributed to the growth and activities of the Eastern Section. This person should have a history of continued service to the Eastern Section. Nomination information appears on our website.

## **JOHN MOSS AWARD FOR OUTSTANDING COLLEGE TEACHING**

The John Moss award is reserved for instructors and professors who, at the college level, model and promote outstanding teaching in the geosciences. Nomination information appears on section website.





# New digs

by **Callan Bentley**

*Piedmont Virginia Community College*

Moving during a pandemic cannot really be recommended, but I did it anyhow. As lockdown commenced this past March, my wife was offered admission to the University of Virginia's graduate program in science education, and I was offered a job as the sole full-time geologist at Piedmont Virginia Community College in Charlottesville.

Motivated by the cultural benefits of living in a university town and the prospect of superior public schools for our eight-year-old son, we sold our house in the Fort Valley, and I resigned from my position at Northern Virginia Community College, where I've taught for 14 wonderful years. Then we had to move.



Finding a suitable new house was one substantial issue, but for a geology professor, moving takes on a whole new level of hassle. I had to pack up my rocks and transport them south to my new lab. It turns out that I've collected a fair number of rocks over the past decade and a half. It ended up taking me five separate daylong trips to drive up to NOVA, pack rocks lovingly into boxes, pack the hefty boxes into my Prius, drive south again, and unload the boxes. So that was a week of full time work just by itself. Unpacking the boxes resulted in

a chaotic situation with thousands of samples covering the tables in my new lab.

Over the course of another week, I unpacked and began to organize. I realized I didn't have to keep the same system of organization I had before. This high-entropy situation was an opportunity for me to re-imagine my lab space, teaching collection, and sample philosophy. I started grouping samples into thematic clusters. This began, of course, with the classics like igneous, sedimentary, and metamorphic. But soon new categories arose, like "rocks and sedimentary structures indicative of hypersaline lagoonal depositional settings" and "Archean greenstone belt rocks." It was exciting!

The creative act of thinking about how samples could fit into the new lab was exhilarating as well as exhausting. Additional, handling the specimens induced in me a wistful trip down Memory Lane. In this year of no travel, I was able to use the rocks as stimuli to my memories of visiting Newfoundland, South Africa, Iceland, and Montana. Like stamps in a passport, the rock collection reminded me of places I've been and experiences I've had there.

Before long, the tables had been cleared and the closet shelves filled with neat arrays of samples. On Tuesday, I welcomed my first batch of students to the room, interviewing them as they entered with questions about their health. We all wore masks and nitrile gloves, and they sat six feet apart. They picked up the rocks, and began to use them as prompts for observation & their own interpretations.

Pleased to see this new vision realized, I smiled.



# EASTERN SECTION NAGT

## Officers

**President:** Mike O'Donnell, Blue Ridge Community and Technical College, 13650 Apple Harvest Dr, Martinsburg, WV 25403;

<MODONNEL@blueridgectc.edu or modonnell@lfcc.edu>

**Vice-President:** Christopher Roemmele; Department of Earth and Space Sciences, 225 Merion Science Center, West Chester University, West Chester, PA 19383610-436-2108; <CROEMMELE@wcupa.edu>.

**Treasurer:** Renee Aubry, 1179 Glen Rd., Shrub Oak, NY 10588; email <raubry@otunet.com>.

**Editor:** Callan Bentley, Northern Virginia Community College, 8333 Little River Turnpike, Annandale, VA 22003; (W)703-323-3276; email <cbentley@nvcc.edu>

**Archivist:** Steve Lindberg; 814-539-7723(H); email <minerlight@atlanticbb.net>.

**Past President:** Jason Petula, Millersville University, 221 Stayer Hall, 51 Lyte Street, Millersville, PA 17551; (717) 872-3422; <jpetula@millersville.edu>

**2nd Vice-President:** Deb Hemler, Coordinator of Geoscience Education, Fairmont State University, 1201 Locust Avenue, Fairmont, WV 26554; 304-367-4393; email <dhemler@fairmontstate.edu>

**Secretary:** Rosemarie Sanders, 914-721-0948; email <Rose.Sanders@me.com>.

**Publicity Chairperson:** Vacant; volunteers welcome.  
**NAGT Geo2YC Division Representative:** Rich

Gottfried; Dept. of Science, Frederick Community College, 7932 Opossum Run Pike, Frederick, MD 21702; 301-846-2581(W); 541-822-5561(H); email <RGottfried@frederickcc.edu>.

### Award Chairperson

All awards currently handled by Christopher Roemmele; 610-436-2108; email <CROEMMELE@wcupa.edu>.

### Awards listing:

- Distinguished Service Award
- John Moss Award
- Outstanding Earth Science Teacher Award
- Ralph Digman Award
- James O'Connor Memorial Geology Field Course Scholarship

### Eastern Section NAGT web site addresses:

<<http://sites.google.com/site/nagtes>>

or just <[www.nagtes.org](http://www.nagtes.org)>.

State Councilors' years of office are in brackets; terms begin and end at the spring section meeting.

## State Councilors

### Delaware

**Lawrence Matson**, Dept of Natural Resources & Environmental Control, 88 Kings Highway, Dover, DE 19901; 302-739-9403; email

<Lawrence.Matson@state.de.us> [14-17].

### Maryland

**Martin F. Schmidt, Jr.**, 2718 Appleseed Rd., Finksburg, MD 21048; (H) 410-526-6685, (W) 443-544-7483; Fax: 410-581-7038; email <mschmidt@umbc.edu> [15-18].

**Rich Gottfried**; contact info in Geo2YC representative listing above [13-16].

### New Jersey

**Margaret (Missy) Holzer**, Chatham High School, 255 Lafayette Ave., Chatham, NJ 07928; (W) 973-635-9075; (H) 732-868-0901; email <mholzer@monmouth.com> [15-18].

**Michael Passow**, 296 Central Ave., Englewood NJ 07631-1651; 201-801-0846 (H); 201-519-1071 (C); email <michael@earth2class.org> [14-17].

### New York

**Renee Aubry**, Port Chester HS, Port Chester, NY 10573; 914-934-7952(W), 914-245-9661(H) email <raubry@portchesterschools.org> or <raubry@otunet.com> [15-18].

**Don Duggan-Haas**, Paleontological Research Institution, 1259 Trumansburg Rd., Ithaca, NY 14850; 607-821-0910; email <dugganhaas@museumoftheearth.org> [13-16].

### Ontario

No Councilors at present; volunteers welcome.

### Pennsylvania

**Randy Newcomer**, Randy's Books, PO Box 214, Akron, PA 17501; 717- 823-0579 (C); email <randy@randysbooks.com>; <www.pageology.info> [13-16].

**Jason Petula**, Millersville University, 221 Stayer Hall, 51 Lyte Street, Millersville, PA 17551; (717) 872-3422; <jpetula@millersville.edu> [14-17].

### Virginia

**Callan Bentley**, Piedmont Virginia Community College, Keats Science Building, K219, 501 College Drive, Charlottesville, VA 22902; (434) 961-5472 email <cbentley@pvcc.edu> [15-18].

**Eric J. Pyle**, Department of Geology and Environmental Science, James Madison University, MSC 7703, Harrisonburg, VA 22807; 540-568-7115 (W); email <pyleej@jmu.edu> [15-18].

### West Virginia

**Angela A. McKeen**, St. Mary's Catholic School, Clarksburg, WV 26301; (C) 304-288-1419; email <amckeen71@gmail.com>. [13-16].

**Deb Hemler**; contact info in 2nd Vice President listing above [15-18].

