

**CNYAPG
October 2020**



**Central New York Association
of Professional Geologists**

**Dr. Barbara Tewksbury
(Hamilton College)**

In this Issue:

- **President's Message**
- **October Meeting Announcement**
- **Upcoming Events**

21 October 2020 Virtual Meeting– 6:00 PM

Dr. Barbara Tewksbury (Hamilton College) will present:

***From Orbit to Outcrop and Outcrop to Orbit: Teaching
Astronauts to Think Like Geologists***

Geology training for astronauts goes all the way back to the beginning of NASA's astronaut program. Despite the fact that Apollo astronauts had to carry out significant geologic work on the Moon, only one of the twelve who landed on the Moon was actually a geologist – all of the others were pilots. Pre-mission geology training was intense and highly successful. Fast forward to today, and geology is still part of the training that newly selected astronauts receive in their first two years at NASA.

Because of her expertise in effective course design, Hamilton College professor Barbara Tewksbury was asked in 2009 to help redesign the geology training for in-coming NASA astronauts. Since that time, she has been part of a very small cadre of geologists (and the only one from a liberal arts college) who have been responsible for both classroom and field training for the 2009, 2013, and 2017 Astronaut Candidate classes. Although not remotely as extensive as the mission-specific geology training of Apollo, the current geology training prepares astronauts for viewing the Earth in a knowledgeable way from the International Space Station. In this talk, Tewksbury will take you inside the current geology training program and what it's like to work with astronauts both the classroom at Johnson Spaceflight Center in Houston and in the field on the Taos Plateau in New Mexico.

Please visit: <https://www.hamilton.edu/magazine/fall14/through-the-eyes-of-a-geologist> for more information.

Join The Zoom Meeting:

<https://zoom.us/j/98940451315?pwd=aHNXVXp2c2Uzc1pEdi93M2dqTkdXQT09>

Meeting ID: 989 4045 1315

Passcode: 358699

Next virtual meeting - November 2020

CNYAPG Newsletter

The CNYAPG Newsletter is a monthly publication of the Central New York Association of Professional Geologists dedicated to sharing upcoming events, delivering regular articles of interest and providing the Membership a forum for discussion.

The newsletter is prepared by the Officers and Board of Directors of CNYAPG (listed below).

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President's Message– October 2020

One day at a time! One day at a time is how we all get through this current situation we all are experiencing. I was very young in the nineteen sixties and don't remember much, mostly other than family moments. I didn't understand it at the time, but I remember my family's mood the night of MLK's assassination, the fear, and the anger. With the global pandemic showing no signs of receding and the civil and political environment what it is, it is easy for all of us to surrender to despair. Well, don't! The world and America survived the sixties and we shall survive this period in history as well. Like the nineteen sixties, we will see an explosion in new technologies and discoveries, and our vision will expand. The twenty-twenties will be marked by a great many human and scientific events, that will forever change the discipline of geology and who we are as a people. The sheer amount of geologic discoveries and good geological research being conducted is almost mind-blowing.

You may have noticed that I made a "call to action" plea in September's letter by asking you to volunteer your time, and support the Geosciences in any way you could. I think this will be a theme I will continue in some form as long as we are in the midst of this pandemic. I will for the foreseeable future note how geologists and geoscientists are moving forward in the face of our current reality. Each day geologists get up, get dressed, and help move the discipline forward, in big ways and small ways. Dr. Nick Warner (who will be our November Virtual presenter) motivates his SUNY Geneseo Geology students to move the science forward. Nick and one of his students, Andrew Schuyler, in the middle of this pandemic, published a paper last summer in *Advancing Earth and Space Science*.

The paper compared the crater morphologies and geology at the new Perseverance rover landing site to other basaltic lava plains on Mars. Another one of Nick's students (Margaret Deahn) had a successful internship with NASA-JPL, where she worked on the future sample return mission site locations on Mars. Other faculty in other Geoscience departments across New York State are doing other great things with their students and finding new and innovative ways to give them the highest quality Geoscience education.

A lot of cool things are also happening in the geological-related industries as well. Don't forget the new technologies and techniques developed and learned in the classrooms of our colleges and universities end up driving industry. For example, researchers at the University of Bern are using computer models to test a new hypothesis regarding the formation and tectonic evolution of the Alps. Their work could lead to better and more accurate seismic predictive models for that region of south-western Europe. The mining industry has over the last decade shifted dramatically towards sustainability, employing cool new tools like Augmented and Virtual Reality technologies, and artificial intelligence. Last month a group out at Penn State announced they had developed a treatment process that enabled them to extract more rare earth elements while employing less harmful chemical compounds that could harm our environment. Our discipline is unique among the sciences. We, geologists, are the Swiss army knife of science, and because we are the Swiss army knife of science we are key players in the building of the future. It doesn't matter if you are a field technician collecting groundwater samples in the middle of an abandoned parking lot

or a senior principal geologist overseeing a two-billion-dollar mining project, we are all working to make a better tomorrow.

All of you should know by now that the practice of geology is now a licensed profession in New York State. As of July 1st, there were 1,252 NYS licensed Geologists, 547 from the other U.S. States, and 6 from other countries. Several of the New York state colleges like SUNY Oneonta, SUNY Cortland, and SUNY Potsdam have certified Geology programs that can lead graduates to a license to practice geology in New York State, and in turn support and strengthen the geotechnical and engineering economies in New York State. I encourage all of you who have earned a geology degree in New York State to contact your alma mater(s) and ask them if their program(s) gone through the certification process. A program does not have to be certified, but it just demonstrates to prospective students that the program offers required courses in geology that are covered by the GIT (Geologist-In-Training) part of the ASBOG (National Association of State Boards of Geology) exam. The ASBOG is now required in 32 states including Puerto Rico in order to be a licensed Geologist.

So, in closing, be active in our discipline. Take a few minutes and fire off an email to your alma mater and inquire into how your old department is faring during these changing times. Contact your state, local, or federal representative and let them know your thoughts on a Geoscience related issue. Spend some time to update your knowledge base and skillsets. Continue your personal journey of exploration and learning. I believe it was Eleanor Roosevelt who said, "With the new day comes new strength and new thoughts." The new day is just around the corner.

Keep the faith.

Calvin K. Prothro, P.G.
President of CNYAPG

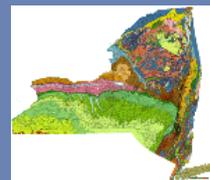
CNYAPG Governance

Membership Renewal

CNYAPG's membership period follows the CNYAPG meeting year from September through August. Renewals are due in September. To renew or become a new member, simply complete the membership form, available on our website at www.cnyapg.org. Membership is only \$25 per year and all money received is used in support of our organization.

Join CNYAPG at our social networking groups on [Facebook](#) and [LinkedIn](#). These sites (always under development) will provide online forums for discussion, as well as another way to inform our members and networking opportunities. For more information about our social media sites e-mail us at admin@cnyapg.org.

The CNYAPG was founded in 1993 to strengthen and advance the geological sciences. CNYAPG conducts regular meetings on the third Wednesday of each month from September to May. Meetings feature dinner and distinguished speakers whose presentations invite comment and discussion.



www.cnyapg.org
[www.twitter.com/cnyapg](https://twitter.com/cnyapg)

Programming Note & Upcoming Events

As noted in the President's Message above, CNYAPG will temporarily transition to a virtual Zoom platform beginning with the October 2020 meeting.

From Orbit to Outcrop and Outcrop to Orbit: Teaching Astronauts to Think Like Geologists

Dr. Barbara Tewksbury– Hamilton College

October 21, 2020– 6:00 PM

Virtual Meeting

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Update on the InSight Mission to Mars

Dr. Nick Warner– SUNY Geneseo

November 18, 2020

Virtual Meeting

We Need Your Input!

Do you have ideas of creative ways to engage members during this unprecedented time?

Interesting experiences to share? Email thoughts and ideas to prothrocc@sunyocc.edu



www.cnyapg.org
[www.twitter.com/cnyapg](https://twitter.com/cnyapg)