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History & Geology of the Rosendale Natural Cement Industry

October 19, 2016

Speaker: Steven H. Schimmrich
SUNY Ulster County Community College

Abstract: The Rosendale natural cement district encompasses a 15 by 3 mile region between the towns of High Falls and East Kingston in Ulster County, New York. In 1818, at a local blacksmith's shop, it was discovered that a local rock unit (the Rondout Formation) made an excellent natural cement. This discovery fortuitously coincided with the construction of the Delaware & Hudson Canal from Honesdale, Pennsylvania to Kingston, New York since it provided both a ready source of cement for construction of the canal but also a way to ship the product to market prior to the advent of railroads. At the time of peak production in 1898, the Rosendale Cement District employed over 1,000 men and produced 3.5 million barrels of natural cement each year or 42% of U.S. national production. Structures built with Rosendale cement include the Brooklyn Bridge, Croton Aqueduct Dam, Brooklyn Navy Yard dry docks, west wing of the U.S. Capital, the pedestal of the Statue of Liberty, and even Fort Jefferson in the Dry Tortugas off the Florida Keys. Geologist Uriah Cummings, in his 1989 book on *American Cements*, claimed that both New York and Boston were likely built entirely from Rosendale Natural Cement. The natural cement industry died out in the 20th century with the growth of Portland cement leaving abandoned mines, quarries, kilns, and industrial ruins as a mute reminder of a once-thriving industry.

O C T O B E R M E E T I N G

About the Presenter: Steven H. Schimmrich is a professor of geology and STEM Department chair at SUNY Ulster County Community College in Stone Ridge, New York. He has a long-standing interest in the historic Rosendale natural cement industry and serves on the board of the Century House Historical Society which acts to preserve the publically-accessible Widow Jane cement mine in Rosendale, New York. Professor Schimmrich earned a B.A. from SUNY New Paltz and an M.S. from SUNY Albany in geology as well as graduate-level work at the University of Illinois in structural geology. In 2007, he was awarded the SUNY Chancellor's Award for Excellence in Teaching.



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program only: Free

Location:	Century House	Time:	Social Hour	5:00pm
	997 New Loudon Road		Dinner	6:00pm
	Latham, NY 12110		Program	7:00pm

Dinner Sponsors receive free dinner, a display table set up for the social hour and a 5 minute presentation to the dinner audience, prior to the presentation. Please contact Jesse Vollick at jesse.vollick@obg.com for more information.

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P R E S I D E N T ' S M E S S A G E

October 2016

I was working in the field this week with newsletter director Josh Gowan, who mentioned it was deadline time for the President's Message to be submitted. So, I'll get busy. Field work is an essential part of the geologist's work, and, I suspect, the reason many of us were drawn to this career. Field work was also the reason I missed our first meeting of the year, which was a joint meeting with the Air & Waste Management Association's Eastern New York Chapter. This was our third joint meeting with AWMA-ENY and based on the attendance, will likely become an annual event. We'd like to thank Mark Lowery of NYSDEC's Office of Climate Change for his presentation on the implications of sea-level rise in New York.

November will be our joint meeting with the New York State Council of Professional Geologists, providing another opportunity to interact with others in the profession who may not be HMPGA members. John Nadeau will be speaking on "Applying for Licensure in New York State", and will provide some important guidance and tips for completing your New York PG application, a process which you may have already started. If you haven't begun the process, for starters, check out the web site of NYSCPG (<https://nyscpg.wildapricot.org/>) and the NYS Education Department's Geology Licensure page (<http://www.op.nysed.gov/prof/geo/>).

Meanwhile, this month's meeting will feature a presentation by Steven H. Schimrich of SUNY Ulster County Community College, who will discuss the Geology and History of the Rosendale Natural Cement Industry. I won't miss this one and look forward to learning how another aspect of our regional geology factored into the early growth of our nation. I hope you will attend also.

Continued on the next page...

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President's Message Continued

To those who solve/attempt to solve the Geo-Cryptociphers, we admit we're still developing our techniques. I do hear the occasional groan when someone solves the puzzle and we try to make the quip a geological one. For an extra hint, this month's puzzle was concocted with the hard rock geologist in mind.

With this short message, I haven't overshot my deadline by too much. I am considering giving one or more of my President's Messages over to espousing some of my opinions, which are many, on topics such as energy resources and climate change. If I do insert one of my rambles or rants in these pages, please know that you are welcome to rebut any or all such opinions. Until then, I hope to see you at the monthly HMPGA meetings.

Kevin
 President 2016-2017

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Tim Johncox

Environmental Compliance & Remediation Manager, Stewarts Shops, VT & NY

Q: How did you become interested in Geology? This is a loaded question, but I'll answer it. As a kid I was always playing outside, half covered in mud collecting all kinds of rocks to bring back to my house. Then in high school I really enjoyed learning about those big picture explanations of our world like plate tectonics, weather patterns, tidal action, and the water and rock cycles. It was like our environment became one big forensic puzzle saying: "Here's what you see... now tell me, how did I get this way?".

Q: What is your current position? Currently I manage the Environmental Compliance & Remediation department at Stewart's Shops. I handle our due diligence, soil and groundwater remediation, and petroleum, chemical, and wastewater compliance programs. I'm pretty fortunate to work with some of the very best people inside Stewart's, at the State of NY & VT, and across our industry.

Q: Do you have a favorite rock or mineral? What is it? I tend to gravitate toward the shiny things. Labradorite was a favorite as a kid after someone suggested to me that a hand sample I found may have gotten here by glacial activity. That really blew my mind. Later in my coursework I really enjoyed looking at those metallic minerals like Galena and Chalcopyrite. Something about the look and heft of them, and the image of men from generations ago mining them for their potential really seemed amazing to me.

Q: What made you decide to pursue this career path? I wish I could say I had a plan all along. My advisor at SUNY Oswego helped steer me at the first big fork in the road. He "turned me to the Dark Side" as he put it by getting me off the secondary education path and on the track for a field degree in Geology. As he said, I could always teach later but with more experience to draw from. I worked as a geological consultant before coming to Stewart's, and now I get to do a bit of teaching in my role here too, which I enjoy tremendously.





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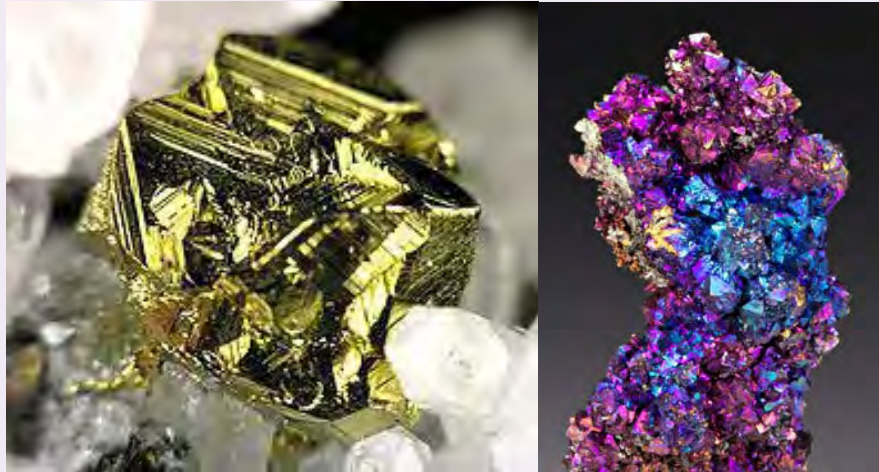
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Chalcopyrite

A major ore of copper. Common in sulfide veins and disseminated in igneous rocks.

Group: Tetragonal • Formation: Typically found as equant to wedge-shaped tetrahedral crystals, often modified by scalenohedral faces • Localities: Worldwide • Chemical Composition: CuFeS_2 • Hardness: 3.5 to 4

Named in 1725 by Johann Friedrich Henckel from the Greek "chalkos", copper, and "pyrites", strike fire. The iridescent colors of weathered chalcopyrite attract attention. Some souvenir shops sell chalcopyrite that has been treated with acid as "peacock ore." However, "peacock ore" is a more appropriate name for the mineral bornite.



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OCTOBER

GEO-CRYPTOCIPHER

CLUE: A = T each letter of the expression is substituted by another letter.

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UNKAQWVZYKCN XOOQXWVSM VS AFVS KQDAVZSK ZE
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Geologic studies are a big part of upcoming space missions

September 14, 2016 by Matt Williams, Universe Today

In the coming decades, the world's largest space agencies all have some rather big plans. Between NASA, the European Space Agency (ESA), Roscosmos, the Indian Space Research Organisation (ISRO), or the China National Space Administration (CNSA), there are plans to return to the moon, crewed missions to Mars, and crewed missions to Near-Earth Objects (NEOs).



Sedimentary outcroppings in the Bressanoe region (left), compared to sedimentary deposits in the Murray Buttes region on Mars (right). Credit: ESA/I. Drozdovsky (left); NASA (right)

In all cases, geological studies are going to be a major aspect of the mission. For this reason, the ESA recently unveiled a new training program known as the Pangaea course, a study program which focuses on identifying planetary geological features. This program showcases just how important planetary geologists will be to future missions.

Francesco Sauro – a field geologist, explorer and the designer of the course – explained the purpose of Pangaea in an ESA press release: "This Pangaea course – named after the ancient supercontinent – will help astronauts to find interesting rock samples as well as to assess the most likely places to find traces of life on other planets. We created a course that enables astronauts on future missions to other planetary bodies to spot the best areas for exploration and the most scientifically interesting rocks to take samples for further analysis by the scientists back on Earth."

You can link to the full article at phys.org here:

<http://phys.org/news/2016-09-geologic-big-upcoming-space-missions.html>

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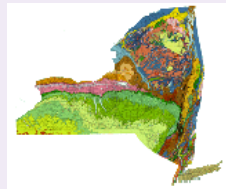
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Environmental Breakfast Club

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Buffalo Association of Professional Geologists (BAPG) conducts regular membership meetings on the third Wednesday of the month, January through June and September through November. Meetings feature distinguished speakers and interesting topics. Field trips and technical seminars sponsored by the BAPG encourage the exchange of scholarship and expertise. www.bapg.org



Central NY Association of Professional Geologists (CNYAPG) conducts regular meetings on the second Thursday of each month, unless otherwise posted, from September to May. Meetings feature dinner and distinguished speakers whose presentations invite comment and discussion. www.cnyapg.org



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