Abstract: The Finger Lakes region of central New York has long been recognized as an iconic landscape most recently refined by the Ontario Lobe of the Laurentide Ice Sheet. The earlier record of glacial events and the actual age of formation of the Finger Lakes has been studied less and thus are not well known. Detailed geologic field mapping by the New York State Geological Survey as part of an ongoing STATEMAP and Great Lakes Geological Mapping Coalition project has provided the resources to investigate and establish a detailed lithostratigraphic and chronostratigraphic record for deeply buried sediment packages within Great Gully, an expansive east-west oriented gorge on the eastern flanks of the Cayuga Lake near the village of Union Springs in Cayuga County.

Identification of laterally continuous and distinct lithologic units observed from 16 exposures has allowed us to develop a comprehensive type section and confidently assign formal names at the formation and member level lithostratigraphic hierarchy. Newly collected continuous wire-line cores, 50 meters in depth, substantiate continuity and expand the stratigraphic and spatial range of preserved deposits. (continued on back)
Abstract (con'd): Lithostratigraphic units are comprised of alternating packages of diamicton and fluvial\lacustrine facies. The fortuitous abundance of subtil organic provides a metric to establish a robust, internally consistent radiocarbon chronology and assess paleoenvironmental conditions. Strata older than the limits of radiocarbon are constrained by optically stimulated luminescence dating. Together the combined geochronology and lithostratigraphic information provide a unique basis for a chronostratigraphic record of glacial and non-glacial phases in the Finger Lakes spanning Marine Isotope Stages (MIS) 1-6 and possibly beyond.

About the Presenter: Dr. Kozlowski is a native of Cortland and received his undergraduate degree from SUNY Cortland in 1995, and his MS in hydrogeology and Ph.D in glacial geology from Western Michigan University in 1998 and 2004, respectively. Dr. Kozlowski is the Director of the NY Geologic Mapping Program and the NY State Museum Curator for Quaternary Landscape Materials. His research focus utilizes geologic mapping of surficial deposits, primarily glacial in origin to address, societal and land use issues. Specifically his work directing the geologic mapping program in the state museum has focused on understanding sediment – landform relationships to address geologic hazards such as landslides, water quality & resources, and aggregate resources, etc. In pursuit of this objective his long term goal is to develop a better understanding of three-dimensional geologic frameworks of glacial deposits that provide better understanding and resolution of glacial stratigraphy and glacial chronology in New York State.

Reservations are required by Monday

February 13, 2017
Whether attending the dinner or only the presentation.

Register on-line at www.hmpga.org

Call or email Marie Cole at (518) 724-7254 • marie.cole@obg.com

Cost: $10.00 for student members
$20.00 for dormant geologists
$25.00 for members
$30.00 for non-members
program only: Free

Location: Century House  
997 New Loudon Road  
Latham, NY 12110  

Time: Social Hour 5:00pm  
Dinner 6:00pm  
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.
Although we are relatively snowless this year, February often feels like the depths of winter, when we greatly appreciate seeing just a little light remaining in the sky as we leave work. The winter’s chill in February also serves as a reminder that it wasn’t so long ago, geologically speaking, that the Hudson-Mohawk region re-appeared from under thousands of feet of Laurentide ice.

This makes February the perfect time for our monthly HMPGA meeting to host our Annual Donald Cadwell Memorial Lecture on Glacial Geology. For our newer members, Don was the glacial geologist with the New York State Museum/Geological Survey for many years, and an original HMPGA member. In fact, Don was one of our earliest meeting speakers, who described his research at the Bering Glacier in Alaska to the membership at our September, 1995 meeting. After Don’s passing in 2006, the HMPGA Board initiated our annual lecture on glacial geology in Don’s memory.

And it is quite fitting that our 2017 Donald Cadwell Memorial lecture will be presented by Dr. Andy Kozlowski, who is continuing the glacial geologic research and mapping activities at the NYS Museum. Andy will present on recent contributions toward a time-stratigraphic framework for the Late Quaternary of the eastern Finger Lakes area, based on his research into deeply buried sediment packages in the Great Gully area on the east side of Cayuga Lake. The history of pre-late Wisconsinan events in New York has been poorly documented in the past; hopefully, Andy’s findings will fill many of the gaps.

February is also a time when your HMPGA Board of Directors begins to look ahead to next year. We will need some members to step up and volunteer to fill roles in next year’s board and supporting committees. If you are interested in contributing next year, please contact any board member. There are many areas we will need help.

Continued on next page…
President’s Message Continued

Your HMPGA Board recently held initial discussions with members of the New York State Council of Professional Geologists. NYSCPG and HMPGA are planning a joint symposium on issues germane to geologic and engineering professionals. The leading candidate for topic appears to be the issue of emerging contaminants. The PFOA crisis in Hoosick Falls and similar issues make emerging contaminants a topic we can all learn more about. Again, HMPGA and NYSCPG need a lot of support from our memberships to make this event happen. Please consider pitching in.

Kevin
For over a century (1866-1969) Hawaiians with leprosy, or Hansen's disease, were quarantined on the remote Kalaupapa Peninsula on the island of Molokai, Hawai'i.

Molokai, the fifth largest in the Hawaiian chain, was formed in the Tertiary Period. Two separate volcanoes formed islands that gradually merged into one as lava filled the channel between.

The sea cliffs, rising to 3,000 feet, were believed to have been formed 1 to 1.5 mya, after the northern one-third of the island collapsed, extending rubble over forty miles out to sea. It is theorized that between 230,000 and 300,000 years ago, long after the extinction of the volcanoes that formed Molokai, an offshore shield volcano erupted, forming a relatively flat triangle of land through continuous flows of extremely hot and fast spreading pahoehoe lava across this rubble. The land mass created eventually connected with the island, creating the current day peninsula.

Because it was surrounded on three sides by the ocean and cut off from the rest of Molokai by the rugged cliffs, the peninsula was used to isolate people with leprosy. Even though the disease was treatable with sulfa drugs after World War 2, more than 8,000 people with leprosy were sent there between 1866 to 1969, until the laws requiring quarantine were repealed. There are still patients living there who choose to stay on the island; they are provided for by the State of Hawaii. New cases of leprosy still occur in Brazil, Africa, India and Indonesia. It is contagious, but only to those people with a certain genetic predisposition. For further information on Kalaupapa National Historic Park, go to www.nps.gov/kala.
Members, we hope that everyone had a happy and safe celebration for the new year. We wanted to remind you that 2017 brings new opportunities to help the community as geologists. Please keep in mind that during the spring, we will have our Howe’s Cave trips where volunteers can assist local high school field trips that visit the site (dates are still being organized). We also have a high school science fair and the gem & mineral show where we can volunteer to assist at our table. If you have any interest in volunteering, please reach out to Joe Osso!

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Named by Henry J. Brooke and William H. Miller in 1854 for the type locality at Saint Symphorien, Autun District, Saône-et-Loire, France. Autunite, an important ore of uranium, was the most widely used source of the element during World War II. For scientific studies it is recommended to store the mineral in a sealed container to minimize the water loss. Museums are known to have covered the mineral with lacquer to avoid drying of the mineral.
HMPGA PROGRAM DIRECTORS

Being active in HMPGA is a fully volunteer activity that often demands a great deal of attention. The following members chair this year’s committees and we thank them:

Communications/Educational Outreach          Joe Osso          Joseph.Osso@arcadis.com
Membership/Newsletter                         Josh Gowan        jgowan@alphageoscience.com
Program                                         Jesse Vollick    Jesse.vollick@obg.com
Webmaster                                      Scott Hulseapple shulseapple@alphageoscience.com

Ads in the HMPGA Newsletter range from $100-$200 annually. For more information contact Joshua Gowan, P.G., Alpha Geoscience, jgowan@alphageoscience.com
Mr. Phelan’s

February Geo-Cryptocipher

Clue: I = A each letter of the expression is substituted by another letter.

Jihqfsex iqgjizefk eq tivizzfz piqok,

Rnfq wgmoqo gq kfi wzggvk pc xitipzf niqok,

Ymks i wfr nmqovfo hijjik kffq gq gxfiq sviufvkfk,

Xgqwevjfо snis snf tgzfk xiq niuf snfev vfuфvkfk.

January’s Solution

Geo-Cryptocipher

This sedimentary petrology class is so ill-prepared, they did not even know whether to “oo” or “ah” at the professor’s polished specimen of Florida oomictrite.

Send your solutions to kphelan@alphageoscience.com
<table>
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<tr>
<th>Date</th>
<th>Speaker</th>
<th>Presentation/Event</th>
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| February 15, 2017 | Dr. Andrew Kozlowski  
New York State Museum                                                           | "The Great Gully Group: a Time-Stratigraphic Framework for Late Quaternary Events in the Eastern Finger Lakes of New York State" |
| March 15, 2017   | Dr. Jeffrey Chiarenzelli  
James Henry Chapin Professor of Geology and Mineralogy  
St. Lawrence University | Title TBD - Update on the geological evolution of the Adirondack Region             |
| April 19, 2017   | Dr. Les Hasbargen  
Dept. of Earth and Atmospheric Sciences  
SUNY College at Oneonta, NY  
College Student Poster Session | Title TBD - Structure from motion 3D landform modeling  
College Student Poster Session |
| May 17, 2017     | TBD                                                                    | TBD                                                                                |
| Summer 2017 - Date TBD | -                                                                     | TBD - Summer Outing                                                                 |

Information subject to revision.
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As of 2/10/2017
Eastern New York (ENY) Chapter of the Air & Waste Management Association (MASS-A&WMA). They encompass the greater Capital District and Hudson Valley region of eastern New York State. A professional non-for-profit association of engineers and scientists working in the environmental field, with a particular focus on issues related to air and waste. www.awmanenychapter.wildMAYicot.org

The Geological Society of America (GSA) strives to be a leader in advancing the geosciences, while enhancing the professional growth of its members, and promoting the geosciences in the service of humankind. www.geosociety.org

The New York State Museum is a major research and educational institution. It is dedicated to promoting inquiry and advancing knowledge in the fields of geology, biology, anthropology, and history, through the investigation of material evidence germane to New York State’s past, present and future. www.nysm.nysed.gov

New York State Council of Professional Geologists (NYSCPG) strives to strengthen and advance the geologic sciences as a profession, promote the protection of public health and welfare and the environment through the professional practice of geologic sciences, and create high standards of ethical conduct among its members and within the profession of geology, as well as the legal standing of geologists and their ability to practice geology in New York State by promoting the licensing of geologists in New York State through statutory regulation. www.nyscpg.org
The Capital District Environmental Breakfast Club is an informal group of environmental professionals that meets monthly to discuss current environmental issues. Each meeting features a speaker on a topic of interest, a regulatory update, and an open forum. Meetings are held on the first Friday of each month except July and August. The Environmental Breakfast Club meets at the Holiday Inn Turf on Wolf Road in Colonie, New York. Meetings start at 7:30 am. The cost is $15 per person, which includes a full breakfast buffet. [www.youngsommer.com](http://www.youngsommer.com)

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](http://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](http://www.cnyapg.org)

Long Island Association of Professional Geologists (LIAPG) is a not-for-profit professional organization dedicated to the professional and business needs of geologists located in the Long Island / Metro New York area. [www.lipg.org](http://www.lipg.org)
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