

Helbert Garcia-Delgado
(Syracuse University)

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2023 Election Update

1 February 2023– 7:00 PM - In-Person & Virtual Options Available

Helbert Garcia-Delgado (Syracuse University) will present:

Impact of climate and tectonics on erosion and sedimentation rates in low latitude active orogens: a case study in the Colombian Andes

Late Cenozoic cooling is thought to be the main driver of erosion globally. Glacial/interglacial cycles modify river hydrology and therefore the balance between erosion, transport, and deposition of sediments in active orogens. My research aims to understand the impact glacial/interglacial cycles had on erosion/sedimentation rates in low latitude tropical mountains, like the Northern Andes. The research question addressed is: What is the primary process responsible for the deposition of thick (up to 300m) fill terraces in steep mountain catchments? I hypothesize that (1) these terraces were formed in periods of low river discharge (interglacial) when bedload transport capacity was reduced. An alternative scenario is (2) that sediment production was enhanced by high rock uplift rates via earthquakes. If the climate trigger is feasible, this implies that low-latitude tropical mountain ranges are sensitive to rainfall fluctuations through increase/decrease in sediment production and that climate change may have a greater impact on the future of tropical rivers. Otherwise, erosion rates in low-latitude mountains are regulated by coseismic deformation that overprints climate activity, even over short-time scales.

An application is pending with NYSCPG for this presentation to count for 1 NY PDH towards your NY-PG continuing education requirements

BOTH IN-PERSON and VIRTUAL options are available!

Virtual registrants will receive Zoom login instructions the morning of 2/1/23 and we look forward to seeing in-person registrants at the Spaghetti Warehouse!

Location: Spaghetti Warehouse, 689 North Clinton Street, Syracuse, New York or ZOOM

Time: 5:00 – 6:00p.m. social hour: 6:00-7:00 p.m. dinner; 7:00 p.m. technical presentation

RSVP: <https://cnyapg.org/> or Bonnie (Parratt Wolff) bolney@pwinc.com or (315) 437-1429

Next dinner meeting - March 2023

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).

Officers:

Calvin Prothro, President
c.k.prothro@gmail.com

Sean Pepling, Vice President
SPepling@PWInc.com

Gerry Gould, Treasurer
ggould@gouldgw.com

Will Hackett, Secretary
Whackett@PWInc.com

Curt Lindy, Associate Vice President
curtlindy@gmail.com

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danahimmel@gmail.com

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nkranes@trccompanies.com

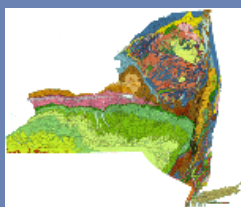
Bill McCune
William.McCune@arcadis.com

Lynette Mokry
l.mokry@fpm-remediations.com

Justin Stroup
justin.stroup@oswego.edu

Guy Swenson
Guy.Swenson@ramboll.com

Keith White
Keith.White@arcadis.com



President's Message— February 2023

Do you believe it's February already? I don't want to jinx us, but the weather has been very mild in central New York, this winter. I am sure you are all with me in wishing our California friends and relatives, all the best in dealing with the weather nightmare they have been enduring the last two months. We are all looking at the beginning of the new seasonal weather trends across the globe. However, something more upbeat for now.

I want to say thank you to Dr. Teresa Jordan of Cornell University for her January presentation on Cornell's Geothermal Heat Aspiration and 2022 Borehole Observatory project. This was a fascinating and thought-provoking talk. Thank you so very much for that. This month, CNYAPG is pleased to announce that our 2022-year student grant recipient and a co-recipient of the 2022 Geological Society of America's John T. and Carol G. McGill Award, Helbert Garcia-Delgado will be presenting his research entitled "Impact of climate and tectonics on erosion and sedimentation rates in low latitude active orogens: a case study in the Colombian Andes." We all look forward to learning about your research.

A couple of updates: CNYAPG is currently working on a Geology Field Days for students and professionals. It will have demonstrations of environmental and geotechnical drilling and field sampling, drones, and other cool field activities that geologists and environmental scientists perform in the field. We are also planning to offer PDHs for those with PG licenses. Stay Tune. This spring, CNYAPG will be holding elections for the positions on the board of directors. If you are interested in helping to promote and assist the Central New York geoscience community, please send us your name and a short bio.

We have received a lot of great student proposals for our 2023 Student Grant, and the review committee will be making an announcement soon. Lastly, I want to give a shout-out to our past President and current board member, Guy Swenson, for winning last month, the AIPG Scenic Wonder Photo Challenge. His photo of the "Ordesa Valley with the *Parque Nacional de Ordea y Monte*

Perdido located in the Pyrenees of Northern Spain” graces the cover of the latest issue of AIPG’s *The Professional Geologist*. Congrats Guy!

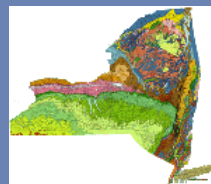
Finally, February is African-American History Month, and as an African-American myself, I wanted to mention someone who has helped pave the way for me to be here, as a Professional geologist. Last year I introduced you to Dr. Marguerite Williams, this year I will introduce you to Dr. Mack Gipson, Jr.

Mack Gipson, Jr. was born in September 1931 in Trenton, South Carolina, a small, rural town with a population (according to the U.S. Census of 1930) of around 400. Mack Gipson became interested in science when he was exposed to geology in junior high school. His grandmother moved him to Augusta, Georgia so he would be able to attend high school and further his education. After graduating high school, Gipson attended Paine College in Augusta, a private, Methodist institution. He studied science and mathematics and received his bachelor of science degree in 1953. The following year he was drafted into the United States Army.

While serving in the U.S. Army during the mid-1950s, Mack Gipson, Jr. decided to pursue a career in geology. After leaving the army he attended the University of Chicago where he earned a Masters in Science in 1961 and a Ph.D. in Geology in 1963, becoming the first African-American male to receive a doctorate in geology in the United States. However, as I mentioned last year, Marguerite Williams was the first African-American of any gender to earn a doctorate in Geology. She did it in 1942.

Dr. Gipson’s research was focused on clay mineralogy and shale deposits, focusing on the relationship of shale porosity to depth of burial as related to the study of potential petroleum reservoirs. Among the many positions Dr. Gipson held during his extensive career, he also worked for Exxon (Now ExxonMobil), Phillips Petroleum, and ERCO industries. He served on the National Petroleum Council, and as part of a program of the National Science Foundation for high school scientists, served as director. He also founded the geology department at Virginia State University, then called Virginia State College. Dr. Gipson was also the first to identify large-scale faceted peaks in

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the equatorial regions of Mars from images returned by Mariner 9 in 1971.

During his long career, Dr. Gipson received many honors, including being honored by Paine College with the Alumni Achievement Award, the President's Award, and the Presidential Citation. The University of South Carolina's School of the Earth, Ocean and Environment offers the Mack Gipson scholarship award to students from groups traditionally under-represented in the Geosciences. For his many years of instruction, contributions to research, administrative abilities, civic service, and professional recognition, he was made a member of the Outstanding Educators of America. Dr. Gipson was one of the founders of NABG (The National Association of Black Geoscientists). Dr. Mack Gipson passed away in March 1995.

I end with my monthly quote: "Education is the passport to the future, for tomorrow belongs to those who prepare for it today." – Malcolm X

Sincerely,

Calvin K. Prothro; P.G., CPG
President, CNYAPG

CNYAPG SPRING 2023 ELECTIONS ARE FAST APPROACHING (APRIL)!

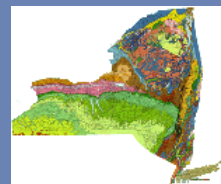
**CNYAPG IS IN NEED OF CANDIDATES FOR THE
FOLLOWING POSITIONS:**

- 1.) SECRETARY**
- 2.) DIRECTOR (THREE OF THESE POSITIONS WILL
BE ON THE BALLOT)**

**Minimal time commitment required– one virtual board
meeting per month!**

**Please email Will Hackett– WHackett@PWInc.com
with questions or interest**

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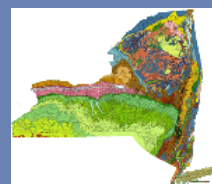
Geochemistry/Chemical Hydrogeology

We assist with evaluation techniques focused on the chemical properties of water and its interactions with rock, soil, or sediment as a compliment to standard hydrogeology techniques, which typically focus on the physical properties and available quantity of water (i.e., flow paths/flow rates)

- ❖ Water Types/Hydrochemical Facies Evaluation
- ❖ Graphical Data Analysis/Mapping
- ❖ Geochemical Calculations/Modeling
- ❖ Statistical Analysis



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Upcoming Events

February 1 2023 7:00 PM– CNYAPG– Helbert Schneider Garcia Delgado – Syracuse University —Impact of climate and tectonics on erosion and sedimentation rates in low latitude active oro-gens: a case study in the Colombian Andes—Dinner Meeting—www.cnyapg.org

March 1 2023 7:00 PM– CNYAPG– Jesse Lubbers– Kimley Horn—Horizontal Directional Drills - Identifying & Mitigating Risks—Dinner Meeting—www.cnyapg.org

April 5 2023 7:00 PM– CNYAPG– Jean Patota—Your PG License and Tips to Keep It— Dinner Meeting—www.cnyapg.org

May 3 2023 7:00 PM– CNYAPG– Dr. David Finkelstein– Hobert & William Smith —Dinner Meeting—www.cnyapg.org



Iguazu Falls

Brazil and Argentina (View from Brazilian side)

Iguazu Falls are the largest waterfalls system in the world. The Iguazu River, which forms the falls, is the boundary between Brazil and Argentina. The Parana Plateau is formed by a 135 million-year-old basalt cap that creates the falls. The principal channel of the river follows one of the many faults that cut the region.

Photo courtesy of Guy Swenson

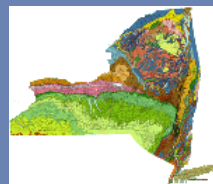
CNYAPG Governance

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.

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