

Geological Society of America History and Philosophy of Geology Division

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Please mark your calendars for proposals for next year's Mary C. Rabbitt Award. The deadline for nominations is **February 1, 2012**. Please see the HAPG Division website for a description of the materials to include in a complete nomination file < http://gsahist.org/hapg_award/awards.htm >. We are accepting late nominations. Thanks.

Congratulations again to Sally Newcomb and Cliff Nelson who received their awards at the Annual Meeting in October.

Congratulations also to Margaret Rosenburg, Student Award
(Full citations and responses appear further on.)

Mary C. Rabbitt Award

On May 1, 2011, by decision of GSA Council, the Mary C. Rabbitt Award has been given to Sally Newcomb. Sandra Herbert proposed Sally for the Rabbitt Award. Sally was recommended by the Awards Committee of the History and Philosophy of Geology Division (Greg Good, chair, Davis Young, and William Brice), and their recommendation was unanimously approved by the management board of the Division.

The Rabbitt Award was given to Sally Newcomb in recognition of years of publication in the history of geology, and especially in recognition of her monograph *The world in a crucible: Laboratory practice and geological theory at the beginning of geology. The Geological Society of America, Special Paper 449*, 204 pp. This monograph, her most recent scholarly achievement, is rightly admired, not least by those familiar with the difficult and comparatively little studied problems it treats. By shedding light on an aspect of geology's history that few have ventured to explore, this book represents an important step forward and makes a significant contribution to our field. It culminates well over two decades of research contributions Sally has made, through articles and book chapters, to historical understanding of the roles played by experiment and chemical knowledge during crucial phases of geological science's founding period. In addition to her exemplary research contributions, Sally has been extraordinarily active in fostering fruitful activity in history of geology, by arranging sessions and meetings, and animating group activities.

Gerald M. and Sue T. Friedman History of Geology Distinguished Service Award

On February 24, 2011, the Awards Committee of the History and Philosophy of Geology Division of the Geological Society of America recommended that Cliff Nelson be given the Gerald M. and Sue T. Friedman History of Geology Distinguished Service Award. Their recommendation was unanimously approved shortly thereafter by the management board of the HAPG Division.

In their report, the Awards Committee recognized the extraordinary service that Cliff Nelson has contributed over the decades on behalf of the history of geology generally and of the History and Philosophy of Geology Division especially. He served as secretary treasurer, newsletter editor, vice chairman, and chairman of the History of Geology Division of GSA from 1976–88; he chaired the US Committee for History of Geology at the NRC from 1985–90; he is a fellow of GSA, and a member of HESS and HSS. In the spirit of the Gerald M. and Sue T. Friedman Distinguished Service Award, Cliff Nelson was chosen as an excellent exemplar of service to the community of historians of geology.

Student Award for 2011 to Margaret Rosenberg

Citation by Bill Brice:

Margaret Rosenberg is a Ph.D. candidate at California Institute of Technology in Planetary Science, with a minor in the history and philosophy of science. As part of her thesis on the topography and surface processes of the moon, she examined the work of G. K. Gilbert (1843–1918) and his ideas about the origin of Arizona's Meteor Crater, and the influence this and later work had on others in the field, especially as it pertained to the creation of lunar craters.

In 1890, Gilbert undertook a study of the Arizona crater and came to the conclusion that some kind of steam explosion, not meteorite impact, was the mechanism responsible for the feature. Several people took exception to Gilbert's ideas, notably Daniel M. Barringer, whose name is now associated with the crater. Barringer provided counter evidence which strongly supported an impact origin, but Gilbert did not respond. This created uncertainty within the scientific community as to its origin and the debate lasted for decades. Although he did not re visit his ideas about the Arizona crater, Gilbert, instead, turned his attention to the lunar craters, even experimenting with projectiles and soft sand to compare the shapes of the lunar craters to what appeared in the sand after it was hit by a projectile. This study, truly cross disciplinary in character, led him to conclude that the impact theory best fit the observations and his experimental data. Oddly he did not go back and re examine his ideas regarding the Arizona crater in light of these findings; perhaps a topic for further work.

Ms. Rosenberg's analysis of what happened next shows that Gilbert's ideas were welcomed neither by the geologists nor the astronomers, for each group felt that he was working too far outside his accepted area and this led him "dangerously close to speculation." As she described the situation, it was a clash of two different philosophical approaches to doing science. As Ms. Rosenberg put it, "Astronomers, comfortable working purely from visual observations of the surface, tended to propose explanations based on terrestrial analogs, . . . The field of geology, on the other hand, was more firmly rooted in the inductive method of gathering samples, and many geologists rejected any hypothesis for crater formation as mere speculation in the absence of enough empirical data." Her study nicely demonstrates that a person's reputation in one area of study does not necessarily extend into a different one.

Ms. Rosenberg's work is a fine example of integrating the historical development of ideas into a modern study. She has shown that from the examination of these past conflicts universal themes emerge that have timeless application.

The History & Philosophy Division of the Geological Society of America is pleased to present its Student Award for 2011 to Ms. Margaret Rosenberg of the California Institute of Technology.

ABSTRACT: *G.K. Gilbert: Discipline Boundaries and the Impact Hypothesis*

The impact hypothesis for the formation of craters found on the Earth, the Moon, and other planetary bodies has had a long and eventful history from the time it was first proposed in the seventeenth century to the present day, where it forms a pillar of the modern discipline of planetary science. This record has been summarized by several historians of science, particularly with the goal of determining reasons for the apparent delay in acceptance of the theory. Many factors have been suggested to have contributed to a continued skepticism of the impact.

Gerald M. and Sue T. Friedman History of Geology Distinguished Service Award to Clifford M. Nelson

Citation by Ken Aalto:

Today we honor Clifford M. Nelson, geologist and historian at the U. S. Geological Survey, for the extraordinary service that he has committed to over the decades in behalf of the history of geology in general, and of the GSA History and Philosophy of Geology Division in particular. He earlier served our division as secretary-treasurer, newsletter editor, vice-chairman, and chairman; he chaired the U. S. Committee for History of Geology (National Research Council) from 1985–90; he is a fellow of GSA and the Linnean Society of London, and a member of the History of Earth Sciences Society, the International Commission on the History of Geological Sciences (INHIGEO) and the History of Science Society. Dr. Nelson received his doctorate at Berkeley in 1974. He has published over fifty articles in refereed books and journals, principally on the history of ideas and institutions in the earth sciences, especially U. S. Geological Survey and its predecessor agencies. He has recently cowritten *Minerals, Lands, and Geology for the Common Defence and General Welfare, Volume 4, 1939–1961*, and will continue with *Volume 5 (1961–1982)* of this series, started by Mary Rabbitt. Aside from history of science he has research interests in the evolution and distribution of Cenozoic northern marine mollusks, especially Neptunidae. In the spirit of the Gerald M. and Sue T. Friedman Distinguished Service Award, we have chosen Cliff Nelson as an excellent exemplar of service to the community of historians of geology.

Response by Cliff Nelson:

Thank you, Ken, for your kind words. But this award really should go to the U.S. Geological Survey, the agency that has enabled me during the past 35 years to practice and serve, mostly under the aegis of other duties as assigned, the history of the earth sciences.

This year also marks the more important anniversary of the History and Philosophy Division's founding in 1976. The Division's establishment followed by more than a decade the creation of the International Commission on the History of Geological Sciences (INHIGEO) under the umbrella of the International Union of Geological Sciences. Gordon Craig and Endre Dudich recalled in *Episodes* in 1988 that INHIGEO was conceived at New Delhi in 1964 and born three years later during a symposium at Yerevan.

George White and other U.S. historians of geology returned from Yerevan and subsequent INHIGEO symposiums hoping that the Geological Society of America might also wish to actively promote the history of the earth sciences. White led the long effort to establish a new History of Geology Division and the GSA's Council approved it as a formal unit on November 7, 1976. Claude Albritton, Gordon Winder, and Bob Dott served as the Division's original Management Board; they, Cecil Schneer, and their successors took me along for what proved to be an eight-year ride as Secretary-Treasurer.

Mary C. Rabbitt Award to Sally Newcomb

Citation by Sandra Herbert:

Sally Newcomb has been one of the individuals whose efforts over the last thirty years have led to the currently vibrant state within our field of the history and philosophy of geology. Partly Sally's contribution has been from her publications; partly her contribution has been from her presence. As for all of us, her contributions sprang from her life. In my remarks I will try to show how her life and her contributions fit together.

Born in Williamsport Pennsylvania in 1932, Sally Fritz majored in chemistry at Purdue University, where she received her B.S. in 1954. Her chemistry major is important for it was through that door that Sally would eventually enter geology. Also in 1954 Sally married Robert Newcomb, an electrical engineering student at Purdue. Their children Gail and Rob were born in 1955 and 1956. Robert Newcomb took his Ph.D. in Electrical Engineering at the University of California, Berkeley in 1960. His teaching career has spanned continents, allowing Sally to travel as well. She reports that her travels left her with the feeling that "the world is often a friendly place." Sally's later work as an American member of INHIGEO has no doubt reflected that experience. Sally and Bob have been frequent participants in INHIGEO conferences abroad.

Sally first encountered geology at San Jose State University where she was a student from 1964-1967. Her goal was earning a California teaching credential. This required a more diverse major in physical science than chemistry alone. While at San Jose State she took a number of geology courses, in addition to those in physical chemistry. She reports that, "I was 'hooked' when, on a week's field trip to Death Valley, the geologist gathered us at the top of Golden Canyon and 'read' it like a textbook."

With her teaching certificate in hand, Sally began teaching both chemistry and geology, in a variety of settings beginning with the Palo Alto, California public schools and culminating in an eighteen year career at Prince George's Community College in Maryland. Deepening her knowledge of chemistry in its relation to geology was a master's degree in Geochemistry and Education, earned in 1980 from the University of Maryland, College Park.

Sally Newcomb's first publication in the history of the earth sciences was an article in *Ambix* in 1986 entitled "Laboratory evidence of silica solution supporting Wernerian theory." In 1987 she earned her second master's degree, this time in the history and philosophy of science. Her thesis, done under the direction of Stephen Brush, was entitled "Contributions of British Experimentalists to the Discipline of Geology: 1780-1920." Twenty two years later, in 2009, she published *The World in a Crucible: Laboratory Practice and Geological Theory at the Beginning of Geology*. It appeared as *Special Paper 449* from the press of the Geological Society of America.

Please mark your calendars for proposals for next year's Friedman Distinguished Service Award. The deadline for nominations is February 1, 2012. Please see the HAPG Division website for a description of the materials to include in a complete nomination file http://gsahist.org/hapg_award/awards.htm . We are accepting late nominations. Thanks.

Student Award

The deadline for the Student Award is May 1, 2012. Materials should be sent to Jane Davidson, jdhexen@unr.edu . Questions? Please contact Jane.

NEW LOGO??

We, as a Division, have the opportunity to devise a new logo for our Division which fits the newly established guidelines. Ken Aalto has prepared a possible new logo, which appears as the image inside the purple line in the screen shot below: We are also including some possible variations on this logo. Please FEEL FREE to suggest some logo ideas of your own if you wish to do so. The Management Board will have an election for a winning logo next year, probably February 2012 so there is lots of time to offer logo candidates. We have listed the submissions so far at http://gsahist.org/v35n04/v35n04.htm#HAPG_logos . Please take a moment and review these as we will post an election for the logo shortly. Thanks.

Topical Sessions sponsored by HPGD at the 2012 Annual Meeting

The history and legacy of gold mining in the southeastern U.S. 1880–2012. The Great Charleston Earthquake (1886) and the Development of Seismology and Earthquake Engineering.

There is also an overnight post meeting field trip about the earthquake being organized by the College of Charleston which may be of some interest.

Message from Ken Aalto regarding other possible sessions:

Depending upon number of papers submitted, I imagine that we'll have a division discipline session in addition to the two topical sessions at the '12 meeting. I hope that at that, or perhaps at the carbonate topical session honoring Gerald Friedman, someone in our division gives a presentation on Gerald's accomplishments as a historian of science.

Please take note. Questions, suggestions? Please send directly to Ken or to Jane.

Financial Statement for the Division as of December, 2011 This is somewhat abbreviated, if you want a bigger statement, let Jane Davidson know.

Assets cash \$4231.72
Loss/Income \$337.35
Differed Dues Income \$1217.37
Net assets \$4231.72

Nominations for the next Management Board are being accepted now:

Nominations are being accepted. Please send to a member of the nominating committee: They are: Steve Roland; Gary Rosenberg; Ann Given.

Questions or comments please address to Jane Davidson, Secretary/Treasurer Newsletter Ed.
jdhexen@unr.edu