

2008 MEDALS & AWARDS

MARY C. RABBITT HISTORY OF GEOLOGY AWARD

Presented to Gregory A. Good



Gregory A. Good
West Virginia University-Morgantown

Citation by Julie R. Newell

The Mary C. Rabbitt Award is presented annually by the Geological Society of America's History of Geology Division to an individual for exceptional scholarly contributions of fundamental importance to our understanding of the history of the geological sciences. Achievements deserving of the award include, but may not be limited to, publication of papers or books that contribute new and profound insights into the history of geology based on original research or a synthesis of existing knowledge."

This year's recipient of the Mary Rabbitt award, Gregory Alan Good, exemplifies the principles spelled out in the official description of the award. Not only does his own scholarship provides us with rich insight and careful analysis, but he has made a tremendous contribution to the scholarship in our field by challenging—and helping—many of us to produce stronger work than we would otherwise have been able to do.

Greg received his B.S. (with highest honors—which will surprise no one who knows him) in Physics from St. Vincent College in Pennsylvania in 1974. From there, he moved on to graduate work in History & Philosophy of Science at the University of Toronto, earning an M.A. and a Ph.D. From the very beginning, Greg's scholarly activity has been characterized by the four C's: content, clarity, context, and connection.

The *content* of Greg's work is broad and yet concrete. From his dissertation on the methodology of John Herschel's optics, through articles and papers on geomagnetism, and on into work on geophysics and geosciences, Greg's work is always rooted in the concrete: the individuals, the institutions, the methodology, and the scientific work that produce our evolving understanding of the small planet on which we all live.

And the story Greg tells in his scholarly work is always one rich in *context*—how the pieces fit together, why time and place and human nature and culture matter in how the science gets done. By exploring a number of adjacent fields—and always insisting that the history of the earth sciences is *plural*—Greg constantly reminds those of us who work only in the history of geology that geology exists as part of a family of sciences.

He tells this story with great *clarity*—both in his mastery of the details and the clarity of his writing. One of his greatest gifts to the scholarly content of the history of the earth sciences is to improve the strength of argument and clarity of writing in the work of others. He has been phenomenally generous—and gentle—with his gifts.

But the "C" that best characterizes the whole of Greg's work is *connection*. His contributions to the scholarship of the history of the earth science are multiplied by the constant connections he creates.

For Greg, the earth sciences is always multidisciplinary. He creates essential connections within the subject matter by drawing together multiple threads of the earth sciences in his own scholarship and by his editorial work. This is evident in the breadth and quality of the work that appeared in *Earth Sciences History* under his editorship (1998–2004). And I can personally attest to the fact that most or all of those papers were better written and their arguments more sound because they were subjected to Greg's keen eye and always constructive feedback. But even more important, and reaching a wide audience, his 1998 two-volume *Sciences of the Earth: An Encyclopedia of Events, People, and Phenomena* is an invaluable resource. Greg's introductory essay, "Toward a History of the Sciences of the Earth," gives the best introductory course in the history of the earth sciences that one could ask for—and in under ten pages. The final two sentences are not only a desideratum for the discipline, but an excellent description to Greg's scholarly work: "Let history be a repository for our memories of what we have tried, of what has been good and what has not. And let this

history be based on an honest, hard-nosed evaluation of what we have known about the Earth."

The degree to which Greg creates connections reaches far beyond the content of his scholarly work. His model of scholarship requires connection to his university community, the broader community in which he lives, and the members of the academic community worldwide. It is this sense of human connectedness that shapes not only his written work but the way he works. Scholarship is conference papers and articles and books—and Greg has given us all of those, but it is also being there, being connected in a community of discourse that creates and disseminates understanding. Greg has given us that, too. And he's given it to us in person in the United States, in Canada, in Germany, in England, in Brazil, in Ireland, in the Czech Republic, in Denmark, and in Italy. He has worked and shared as a Smithsonian Post-Doctoral Fellow, a Carnegie Institution Research Associate, and a visiting scholar at Cambridge University—a tradition he will surely continue when he becomes Director of the Center for History of Physics at the American Institute of Physics this coming January. And he has surely created a community of scholarly discourse among his colleagues and students at West Virginia University.

The 4-Cs may be content, clarity, context, and connection rather than cut, color, clarity, and carat-weight, but it very much was my intent to imply that Greg Good is a diamond in the discipline of the history of the earth sciences. And I've very carefully counted my words so I might conclude with some of Greg's. Greg dedicated *Sciences of the Earth* to a recently deceased friend and mentor, who, he wrote, "taught me that a passion for the world and the living augments scholarship." We have all been enriched because Greg has learned that lesson so well, and because he shares the results so freely—in print and in person.

Response by Gregory A. Good

I am extremely honored that the History of Geology Division of the Geological Society of America has conferred the Mary C. Rabbitt Award in honor of my efforts in history of the earth sciences. This award says volumes about the broadminded tolerance of historians of geology, since so much of my writing lies elsewhere: history of physical optics and scientific method, history of magnetospheric physics, of meteorology,

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and climatology. And I do invite all of you to read my articles, which must seem far beyond history of geology to some. Much that I have written, however, I base on ideas I encountered at meetings of the Geological Society of America. My ideas grew out of contrasting the different views of earth science and its history among geologists, geophysicists, and many others. I strive to integrate – and differentiate – tales from Earth’s core to its cosmic connections.

Don’t, however, look for me to write a version of Alexander von Humboldt’s *Kosmos* for the 21st century! I intend to continue my historical writing on more restricted topics, such as “Magnetic Lives,” currently underway. A large part of this book does concern investigators of rock magnetism and paleomagnetism, but in the context of a broad range of geomagnetic topics. I hope also to write a few scientific biographies, one of the natural philosopher John Herschel and one of Sydney Chapman, aeronomer, theoretical physicist, and magnetician, to use his word. Both Herschel and Chapman contributed greatly to our understanding of Earth as a planet, although neither was a geologist. Maybe someday I will unite these interests into a history of knowledge of the Earth from a cosmic perspective, something like “Earth in the Heavens.”

So you won’t find much about paleontology or sedimentation in my writing. I approach the Earth from space, as a planet, at least back to Copernicus. Before that this approach is anachronistic. Earlier periods require the historian to approach the ideas of alien cultures, whose Earth was not whole, even when it was spherical. That is another story, another time, another historian.

My background differs from that of most historians of geology. As one might guess, I have come to this cosmic view of the history of the earth sciences from a different starting

point. My first scientific love, astronomy, led me to major in physics. Astronomy, I thought, could wait until grad school. But I couldn’t. I bought telescopes and built an observatory on a relative’s farm. I lectured to school children in planetariums and assisted at observing sessions at my college. I eagerly read histories of astronomy. Undergraduate professors introduced me to Kuhn’s revolutions and Polanyi’s tacit knowledge. Then I stumbled on something new: history of science as a professional possibility. When I was filling out applications to grad schools for astronomy, I noticed that three had graduate programs in history of science. Two seconds with an eraser changed my future.

Given my different background, how did I end up spending so much time with geologists and historians of geology? Happy accident contributed somewhat, of course. My roommate in grad school, Tony Green, was a geologist who worked for a while on a mapping project for Tuzo Wilson. Evening discussions with Tony introduced me to plate tectonics. Summers took me to the Canadian Rockies, Newfoundland’s “fiord” country, and various mountain ranges for peak bagging and botanizing. Camp talk centered on glacial rebound, William Logan, and the Franklin search expeditions. My job was to teach my friends about the history of exploration of these places. We also collected rock samples in the Byam Martin Mountains on arctic Bylot Island for a geologist back home.

Geologists, I find, have one advantage over physicists when it comes to history. Geologists, naturally, think about time. They think about a succession of unique events, whereas physicists seek uniform laws. I find geologists quite able to “get” what a historian is trying to do. So many stories told by historians of geology revolve around characters with a wonderful spatial imagination and a substantial appreciation of

processes over geological time. The stories also show individual scientists to have been real people, who worked both the field and the study. All of these attributes of history of geology make this community a natural fit for me, even if I mainly write about histories of geophysics, geomagnetism, and electrical currents throughout Earth and near space.

I have benefited immensely from a series of editorial experiences. When I decided in 1990 to edit the Garland encyclopedia on the history of the earth sciences, I thought of it as a “community-building” activity. I thought it would be done in a few years and I could get back on track, writing the book that would promote me to professor. Eight years later, *Sciences of the Earth* burst from the press, at a price beyond most scholars’ budgets. A tribute to my determination – I’m like a Labrador retriever that will not let go of the duck. But more so, this first-ever comprehensive history of (almost) all the geosciences was a tribute to 140 authors, from dozens of countries. The field needed a “state of the art” book so that the next generation of historians might proceed further. I learned much from all of those authors.

My seven years as editor of *Earth Sciences History* from 1998 to 2004 and then as subject area editor for geology and solid-earth geophysics for the *New Dictionary of Scientific Biography* from 2005 to 2007 provided my crowning experiences working with more wonderful historians of geology. INHIGEO has also widened my experience by putting me in face-to-face contact with many I had previously known only as authors.

I certainly have been privileged to have met and worked with so many good people, inquisitive people. Thank you for these experiences, and for the greatest honor I can imagine for a historian of the earth sciences, the Mary C. Rabbitt Award.