ROBERT H. DOTT, JR.
2014 GERALD M. AND SUE T. FRIEDMAN AWARD
for
DISTINGUISHED SERVICE TO THE HISTORY AND PHILOSOPHY OF GEOLOGY

The History and Philosophy of Geology Division, Geological Society of America (HPG-GSA) is privileged to present its 2014 Gerald M. and Sue T. Friedman Distinguished Service Award to Robert H. Dott, Jr., Emeritus Professor of Geoscience, University of Wisconsin, Madison.

Bob's long record of service to the history and philosophy of geology includes a term as Chair, U.S. Committee on the History of Geology, National Research Council (1981-1983); President, History of the Earth Sciences Society (1990); and Chair, History of Geology Division GSA (1990). In addition, Bob was a member of the ad hoc committee to determine guidelines for the Mary C. Rabbitt Bequest, HPG-GSA (2006). In his capacity as a founding member of GSA's Rock Star Series and in additional papers, Bob published on such historically important figures as Lyell, Hutton, Chamberlin, Van Hise, Twenhofel, Sloss, Davy, and Kay. He has also published papers countering creationists' claims of a young Earth and their assertions that geologic history is a series of divinely determined events.

Bob has received numerous awards for his research in sedimentology as well as history of geology. Most relevant here is the History of Geology Award (1995), now known as the Mary C. Rabbitt Award, given by the History and Philosophy of Geology Division, GSA.

Moreover, Bob has had an unmatched ability to get others involved in the history of our science via teaching and mentoring. Numerous chairs of this Division and speakers in our symposia were students of Bob's at the University of Wisconsin, Madison or were colleagues who associated with him at Madison and elsewhere.

Bob designed a potent seminar course, History of Geologic Thought, in which readings from Geike, Albritton, Kuhn, Collingwood, Playfair, Hutton, Van Hise, Chamberlin, and others engaged students in the drama of the development of our science and its philosophy from biblical to contemporary times. For me personally and for decades after first reading Geike, vignettes on Leonardo da Vinci gestated in my mind and compelled me to explore the nexus of art history and history of geology.

Bob's respect for the founders and philosophy of geology informs his text, "Evolution of the Earth." Co authored with Roger Batten and Donald Prothero, "Evolution of the Earth" established itself as contemporary geology's preeminent historical text from the moment it was first published in 1971. I vividly remember the prototype, the maps and sections that Bob had us work on when I was a student at Wisconsin in the '60's, because they involved us in using facies distributions and structural relationships to recreate the past, to find ancient shorelines, cratons, and mobile belts, and to define sea level changes and ancient environments the same way that the founders of geology discovered how to do.

As publicity for the book states, the key word is "involving" students in, "How do we know?" rather than merely, "What do we know?" That inclusiveness engenders a sense of belonging in the science, a sense of understanding not only how geology's founders made connections between the rock and fossil record and the history of the planet, but also why they occasionally bumped up against each other in debate and why the our science has not simply progressed in a straight line towards absolute truth about our planet. Our involvement in the process of geology and insight into our founders' mistakes and triumphs undoubtedly have much to do with the number of us whom Bob inspired.

Bob's teaching and mentoring are vital to acknowledge in the context of our times. There is a troubling trend to devalue historical geology within geology curricula; historical geology is disappearing as a course offering and as it fades so does appreciation of the history of the science,

which is integral to the course. One publisher estimates that approximately 225,000-250,000 undergrads take physical geology at American universities each year, but that only a tenth of those take historical geology and most of those are majors.

This publisher reports a "definite decline" in historical enrollments but an increase in numbers taking "geological hazards," "global change," and "environmental geology" although he believes that enrollments in the last of these are leveling off. He reports that the "death and destruction" courses as he calls them have become preferred options for general education requirements in most states. Oddly, one exception appears to be Texas, a creationist stronghold, where historical remains a "gen ed" option in many areas.

The publisher of Bob's text agrees that institutions are either eliminating historical altogether or offering only small sections of the class. In response, his company is marketing chapters of Bob's book as separates that instructors can assemble into course packs so that even historical for majors can be squeezed into one or two weeks in physical or environmental geology.

I submit that students cannot internalize the concept of deep time during a week or two in an introductory class, let alone when it is reduced to a brief survey in an advanced geology course for majors. Deep time is what makes our science unique. Historical geology is the one course that shows how the past is key to understanding the web of interrelationships of geologic processes operating today and how that understanding came to generate the ethical structure of our science. It's imperative to help students begin to understand early in the curriculum that they are successors and conveyors of that tradition. Geologists, not creationists, speak for the ethics of our science.

Take environmentalism for example. Bob tells me that Aldo Leopold is one of his heroes. As I reported at GSA's 2014 annual convention in Vancouver, Leopold's, "A Sand County Almanac," a founding text of modern environmentalism, is imbued with Leopold's awareness of the long history of the Earth. Leopold uses every mention of deep time to reinforce his assertion that there are profound and unfortunate consequences of the single-minded commodification of the land. As Leopold lamented, the harmony between humankind and nature that has evolved over millennia is being destroyed in a geological instant. Bob reinforces this ethical lesson from Earth history in, "The Best of All Possible Worlds?" the final chapter of his text. And because he has shown that it has taken human beings millennia to comprehend and give voice to this ethic, he compels us not to forget it.

More generally, education in America is suffering a malaise; it has become commodified according to business models that are administratively rather than pedagogically driven and co-opted by political demagoguery that has demonized teachers and diverted resources to privileged groups. All of this runs counter to the role that education has played in American democracy and our democracy will suffer if this trend persists.

We are thus obliged to laud great teachers and fortunately we can say that geology has Bob Dott as preeminent exemplar for historical geology and history of our science. We can confidently assert that Bob's teaching and mentorship serve as paradigms for a bright future for the geosciences because they build on vital lessons from the past and we are delighted to assert this recognition of Bob with the Gerald M. and Sue T. Friedman Award.

Gary D. Rosenberg