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ACCEPTANCE OF THE ROEBLING MEDAL OF THE  
MINERALOGICAL SOCIETY OF AMERICA

MAX H. HEY, *British Museum (Natural History), London, England.*

*Mr. President, ladies and gentlemen:*

When I look at the list of previous Roebbling medallists, I feel indeed a pygmy among giants. I can, I hope, claim to be a real mineralogist, but only by apprenticeship—at Oxford I read chemistry, with a marked bias toward organic chemistry, but there were several things about my Oxford days that have stood me in good stead: my tutor laid very little stress on attendance at lectures, but a great deal on learning to find one's way through the literature and on learning to write a logical, concise, and coherent résumé of the result of such a search; then I was not encumbered with lists of compulsive lectures, but left free to organize my time as I thought fit, which meant acquiring a wonderful miscellany of information, much of it of no practical value, but including many items that have come in very useful indeed. There were, and I believe still are, two supplementary subjects open to chemists, crystallography and mineralogy, and I chose crystallography, which in 1921 didn't mean structure factors and atomic positions, but a thorough grounding in morphology and crystal optics. Finally, I had the advantage of an unconventional but very valuable course in chemical analysis under J. J. Manley; his students were forbidden to wear the usual white lab coats, on the grounds that anyone who needs a lab coat to protect his clothes will never make a competent analyst, and I may confess to holding to that tradition.

In 1928 I had the good fortune to be appointed an Assistant in the British Museum (Natural History). My time was shared between analytical work and work on the slip catalogue of the collection—and there could be no better training in mineralogy. The slip catalogue was started in 1904, and by 1928 it had progressed from the elements to midway through the silicates; I was started on the zeolites. For each specimen we had to collect all its history, to check the identity of the mineral, and to determine all the accompanying minerals; and in those days determinations weren't a matter of sending a fragment for an X-ray powder photograph; appearance, hardness, density, optics, and confirmatory chemical tests were the tools, and excellent tools they are; I still feel guilty when I have to send a specimen for an X-ray determination.

There was very little specialization and the variety of the work was its greatest attraction to me, together with the challenge to make some sense out of the chemistry of the zeolites, then a little understood group of minerals. But long before my program of zeolite work was complete it was



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interrupted by a new task, as I was called on to compile an appendix to Dr. Prior's *Catalogue of Meteorites*, a job that has since expanded enormously, and to prepare the meteorite collection for its wartime evacuation. Having had no petrological training whatever, my work on meteorites has perforce been mainly in the field of analytical techniques; it has been a long, slow task with many interruptions, but at last we are arriving at some useful methods that will, I believe, not be wholly superseded by the development of the electron microprobe.

Parallel with this work on meteorite analysis has been work on the microanalysis of minerals: I am convinced that many, perhaps most laboratories demand unnecessarily large amounts of material for analysis; 10 to 20 milligrams is ample for almost any mineral, and when the qualitative composition is known a good analysis can sometimes be made on 1 to 2 milligrams. There really is no excuse for the chemist to demand more, and I hope mineralogists will press for a revision of obsolete notions in this field.

Another activity that began as a small sideline and has developed into a major task started out of an enquiry into what silicates of magnesium were known in nature; this enquiry prompted the institution of a card index of minerals arranged by their principal constituent elements, an index originally intended for internal use in the Department of Mineralogy, and from this the *Chemical Index of Minerals* has grown.

Finally, in 1956 I was asked to succeed Dr. Spencer as editor of the *Mineralogical Magazine*, a job I accepted with some trepidation. To maintain Dr. Spencer's standards of editorial practice was, I felt, a daunting task, but I am happy to say that almost without exception the amendments, excisions, and compressions I have asked of authors have been accepted without demur and often with thanks. To my mind, every scientific paper can benefit from firm and thorough editing, and the editor's principal tasks are to keep all papers as concise as possible, and to ensure that the author says what he means—it is surprising how often experienced authors write a passage that could easily be misread. Indeed, to my mind far too few scientists today realize that the English language is a very delicate precision instrument capable of the finest distinctions, and handle it like a sledge hammer. I was brought up on a famous little book—Fowler's *The King's English*. I don't mind whether an author writes the King's English or the President's English, but I do object to new-fangled private versions like the verb "to filtratate." But perhaps an editor's most difficult task is to ensure that his journal is adequately indexed and cross-indexed; certain well-known journals are indexed in a very perfunctory fashion, and I for one would never submit a paper to one of these journals. I hope neither the *Mineralogical Magazine* nor *The American Mineralogist* will ever fall into this category.

Looking back at close on 40 years of mineralogy, I have often felt disappointed at the small proportion of original work I have accomplished; today I feel greatly encouraged that my American colleagues should have felt my work worthy of the Roebling medal. In accepting this award, with the deepest gratitude, I hope my ego may not be inflated like the friend of whom Richard Barham wrote:

A friend met some half hour since  
 Good morrow, Jack, quoth I.  
 The new-made knight, like any prince,  
 Smiled, nodded, and passed by.  
 Then up comes Jim: Sir John, your slave!  
 Ah, James, we dine at eight  
 (Low bows the supple knave)  
 And pray, don't make My Lady wait!  
 The King can do no wrong? As I'm a sinner  
 He's spoilt an honest tradesman and—my dinner.

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PRESENTATION OF THE MINERALOGICAL SOCIETY OF  
 AMERICA AWARD FOR 1966 TO DAVID B. STEWART

WILLIAM T. PECORA, *U. S. Geological Survey, Washington, D. C.*

*Mr. President, fellow members, and guests:*

I am honored on this occasion to deliver the presentation address of the Mineralogical Society Award. I have always considered this the Junior award of the Society, and would like to keep my remarks on an informal basis in order to decrease the discomfort that the recipient may be experiencing in anticipation.

Dave Stewart is a good friend, and has been for many years. I remember my first meeting with him in the summer preceding his freshman year at Harvard, when he was introduced to me by Professor Frondel as a knowledgeable mineral collector who had a lot of potential. During his undergraduate years he worked as a summer field assistant for the Geological Survey, and it was here that I got to know him very well indeed. Within a few summers he rose to the rank of Party Chief, which is a designation we give to those with the ability and wisdom to direct a field party, irrespective of age or position. He could have used his original work in the western Bearpaw Mountains of Montana as the basis of a doctoral dissertation that would have been acceptable to his University committee; instead, he preferred to do a project entirely on his own, and so later undertook a study of rapakivi granite in Maine.