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Presentation of the Distinguished Public Service Medal for 1998 to Daniel E. Appleman

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Mr. President, members of the society, and guests:

I feel most privileged to be asked by Peggy Appleman, to introduce her husband, Daniel E. Appleman, the recipient of the 1998 Distinguished Public Service Medal of the Mineralogical Society of America. It is also a bittersweet occasion, for Dan passed away in January of this year after a courageous year-long fight with cancer. He is thus with us only in spirit; instead, Peggy Appleman is here to receive the award on his behalf.

Daniel Appleman lived an extraordinary life—a life devoted to the mineralogical sciences, museum directorship, science education, public service, and the arts. His research, management, and curatorial skills were very influential in furthering the scientific and educational programs of three major institutions—the U.S. Geological Survey, the National Museum of Natural History, and the Cranbrook Institute of Science.

Dan was born in Berkeley, California, and he grew up in a stimulating environment furnished by his scientist parents. He received the BS degree in geology from the California Institute of Technology in 1953 and then commenced graduate work within the Department of Geology at the Johns Hopkins University. Here he came under the tutelage of the noted professor of mineralogy and former MSA President, J.D.H. Donnay, a gentleman who initiated Dan's life-long interest in the atomic structure of minerals. His Ph.D. thesis research, started in the summer of 1954, was on the nature of the crystal structure of two uranium-bearing minerals, liebigite and johannite, his Ph.D. degree being awarded in 1956.

Dan became a full-time employee of the U.S. Geological Survey in 1956 and during an 18 year tenure at that organization he described 23 mineral structures, a truly impressive number , while at the Survey and then 7 more while at the National Museum. During the Survey years Daniel also became expert in the programming and use of the first of the big vacuum tube-driven mainframe computers. He spent many hours of his time working on the many problems involved with the purchase and administration of the newer mainframes that were coming online in the 1960s. His colleagues fondly remember those halcyon days when Dan would help nurse to completion their computer runs throughout the night while the big mainframe cranked along for 10 to 15 hours to calculate one cycle of a crystal structure refinement, a calculation that can now be accomplished on a desk top computer in minutes. This unselfish donation of his time to help his fellow scientists was one of the abiding characteristics of Daniel Appleman, a trait contributed greatly to his success in the second and third phases of his professional life.

In 1974 Dan joined the Department of Mineral Sciences at the National Museum of Natural History. Dan's first major effort at the Nation Museum was to initiate planning for the post-Apollo era Moon Hall. From this exhibit's opening in 1976 until its closing for renovation in 1995, millions of museum visitors were able to view the lunar rocks and thrill to this legacy of the Apollo missions to the moon. This first experience with the technical and intellectual problems of museum exhibitions dramatically changed Dan's career goals, and although he still kept his hand in mineralogical research, he devoted more and more time to his newly found love—bringing science to the public's attention. After being appointed to the Museum Exhibits Committee in 1976 Dan became involved with developing the Paleobiology Exhibit Complex and then the Dinosaur Hall, both opening in early 1980s. Dan was one of the several curators engaged in developing the traveling exhibit, "Magnificent Voyagers," which told the story of the U.S. Exploring Expedition of 1838–1842 under the leadership of Lieutenant Charles Wilkes. The "Magnificent Voyagers" exhibit, commemorating of the 75th anniversary of the U.S. National Museum, opened in 1985. It is considered one of the most important exhibits in the history of the Smithsonian Institution and was subsequently viewed at six other United States museums. As part of the "Voyagers" exhibit, the monumental accomplishments of the Wilkes Expedition's geologist-mineralogist, James Dwight Dana were presented; Dan emphasized the importance of geology and mineralogy to understanding the world around us through the "Dana lectures" he gave as he accompanied the "Voyagers" exhibit across the Nation.

In 1989 Dan was appointed Associate Director for Science at the Natural History Museum, supervising all of the scientific research and collections programs. Dan's last major exhibit project, before leaving the National Museum for the third phase of his distinguished career, was to help plan the renovation of the gem and mineral halls. In September of 1989 this project was expanded to include the renovation of the entire Earth Sciences Complex. Eight years later the Janet Annenberg Hooker Hall of Geology, Gems, and Minerals, containing over 20,000 square feet of exhibit space, was ready for public viewing. Dan, although very ill, was able to attend the gala opening ceremonies.

Dan's abilities in working with others and his very broad interests over the whole range of science and the arts were keys to his successful exhibit development activities at the Smithsonian, and prepared him for the final phase of his professional life, the Directorship at Cranbrook Institute of Science, located in the town of Bloomfield Hills, Michigan, part of the renowned Cranbrook Schools and Academy of Art. Dan saw the opportunity at Cranbrook to take a small gem of a

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museum and make into the finest science center in Michigan. He was able to obtain a $1.2 million grant from the National Science Foundation for an exhibit that will offer a full tableau of the Earth's evolution. To house this exhibit the Cranbrook overseers raised $27 million to build an addition to the existing Cranbrook Science Institute museum complex. The addition was designed by the noted architect, Steven Holl, who worked in close collaboration with Dan to bring a truly unique way of viewing the exhibit displays. Steven Holl and Dan wanted the new addition to the museum to be designed so that the visitor would follow a continuous inclined and corkscrew path through the entire exhibit area—without room-to-room breaks as seen in conventional museums. So an architect and a mineralogist, to obtain an insight to such a design, were found one day on their hands and knees on the inclined floor of the Solomon R. Guggenheim Museum of modern art, measuring floor gradients and wall angles.

Although very ill throughout 1997, Dan never gave up on his final mission—to make the Cranbook Science Institute one of the finest in the country. And before he died, Dan was able to see from his office window this grand project, into which he put so much effort, nearing completion.

Dan had a very significant life outside science: he was an accomplished violist who for many years played with a string quartet. He was knowledgeable in the arts and literature and onetime chairman of the Cosmos Club music committee, a connoisseur of good food, wines, and dry martinis, a raconteur on almost any subject imaginable, an enthusiastic runner and hiker, and a devoted family man who went with Peggy and their daughter Rebecca on backpacking trips in the mountains of the western United States nearly every summer—and such a good friend to so many.

Mr. President, I present Daniel E. Appleman as the 1998 recipient of the Distinguished Public Service Medal of the Mineralogical Society of America for his contributions to public awareness of mineralogy and other physical and natural sciences through the design and supervision of numerous museum exhibitions and educational programs.