Acceptance of the Mineralogical Society of America Public Service Award of 1998

PEGGY APPLEMAN

Falls Church, Virginia 22046, U.S.A.

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

I would be remiss if I did not correct a couple of errors that crept into the luncheon program. First, our good friend Mac Ross came to Toronto from Washington, D.C., to make the presentation today. And second, Dan studied with Howard T. Evans at the U.S. Geological Survey for much of his dissertation work.

Thank you so much Mac for the lovely citation. And thank you for coming all the way to Toronto to present it. I would also like to thank Jeff Post and Sorena Sorensen for nominating Dan for the award (and I discovered Sunday night, I have Gary Ernst to thank as well) and the MSA, of course, for honoring Dan in this way. It's wonderful to see so many people who have been Dan's and my friends and associates over the years. Thank you for sharing in this special day.

I must say that trying to encapsulate Dan's life in 300 words or less for the program was quite a task. I started out quite flowery and ended up with a bare bones summary. He was a bon vivant—loved good food and fine wines. He loved to explore new places and take in new ideas. He was an excellent violist. He loved to camp and hike and was never so happy as at the top of a mountain. He was a voracious reader of mysteries and the New York Times. He was full of energy and hated inactivity. He was the smartest man I ever met.

But I am supposed to be telling you about his life in public service. By the time I joined the U.S. Geological Survey in 1965, where I was the technician in the crystallography group which included Mac, Dan, Howard Evans, and Jim Papike among others, Dan was well-established in his career. He not only studied the structures of silicate- and uranium-minerals, he became an expert in computers and collaborated with a number of people in the writing of crystallography programs.

Outside of work, he spent a lot of time with the Potomac Appalachian Trail Club helping to keep trails cleared. He went on Justice Douglas's famous walk along the C & O Canal in Washington to make it a national historical park. He judged science fairs for the Geological Society of Washington, a large and very active local group. He led field trips and helped to teach sixth graders at a camp in the Maryland Appalachians. He was interested in and good at teaching and lecturing. He was an adjunct professor at George Washington University for a number of years, and was a guest professor at Princeton for a semester.

He started working on exhibits soon after he went to the Smithsonian in 1974. This really changed the focus of his interest. Whereas his efforts had largely been in classroom teaching before, he became much more aware of the value of exhibits, and he spent much of the rest of his professional career



Daniel E. Appleman

helping to develop ways to communicate major scientific concepts through museums. His last job at the Smithsonian was Associate Director for Science at the Natural History Museum. He had also participated along the way in the museum-wide exhibits committee that helped put together "Magnificent Voyagers," an exhibit about the first U.S. circumnavigation of the globe, and the Geology, Gems and Minerals halls that first opened in September, 1997. He also participated in a number of Smithsonian lectures tours.

We moved to Michigan in 1993 when Dan was appointed director of the Cranbrook Institute of Science, a position which he hadn't sought but was perfect for him. He was very excited about this job because the museum was at the beginning of a building program, which would double its exhibits space. The main thrust of this museum is education and outreach. Thousands of school children visit every year. He was also concerned about reaching out to the adult audience. Dan would be able to put into effect many of the ideas he had developed over the years.

Dan also became involved almost immediately in the scientific and cultural communities of southeast Michigan. He became a member of the board of the Eastern Michigan Environmental Action Council (EMEAC). He was appointed to Governor Engler's commission on AIDS, a cause for which he drove from one end of the state to the other. He was involved in an area-wide group of Chief Operating Officers from all the cultural and scientific organizations in the Detroit. They were working very hard to have an initiative put on the Michigan ballot to get a small percentage of tax money for their organizations. (State funding for cultural and scientific organizations in Michigan has dried up in the last decade.) He had just been appointed to the organizing committee for the international science fair, which is to occur in Detroit in the year 2000, when he became too ill to participate.

Unfortunately all this wonderful activity slowly came to a halt as Dan gradually weakened with the cancer that struck him in December 1996. By mid-fall of 1997, he started to become increasingly incapacitated and he passed peacefully from this world January 2, 1998. The museum which he worked so hard to create opened in June 1998 and the four exhibits for which he was able to do the planning opened in November.

Again I want to thank you for this award. Dan was most pleased last fall to hear that MSA was honoring him in this way.

ERRATA

The Gibbs free energies and enthalpies of formation of U⁶⁺ **phases: An empirical method of prediction,** by Fanrong Chen, Rodney C. Ewing, and Sue B. Clark (v. 84, 650–664, 1999).

The formula and constituent structural components for phosphuranylite in Table 1 should read:

 $KCa(H_3O)_3(UO_2)[(UO_2)_3(PO_4)_2O_2]_2(H_2O)_8 \\ 0.5K_2O_{(1)} + CaO_{(1)} + 4.5H_2O_{(s)} + Ur\varphi_4 + 6Ur\varphi_5 + 2P_2O_{5(IV)} + 8H_2O_{(H)} + 8H_2O_{(H)$

The listing of constitutent structural components for francevillite in Table 1 should replace $_2Ur\phi_5$ with $2Ur\phi_5$.

In Table 2, in the listing for $(UO_2)_2SiO_4$ · 2H₂O, in the column under ΔG , the value should read -3653.0 ± 2.8 .