The Canadian Mineralogist Vol. 31, p. 772 (1993)

MINERALS, MINERALOGY AND MINERALOGISTS: PAST, PRESENT AND FUTURE; ADDENDUM

FRANK C. HAWTHORNE

Department of Geological Sciences, University of Manitoba, Winnipeg, Manitoba R3T 2N2

In my usual disorganized fashion, I omitted to acknowledge the provenance of several of the figures used in my presidential address (Hawthorne 1993); I apologize to everyone concerned. I am particularly contrite with regard to Figure 3, as I did not acknowledge the locality and current exhibitors of these superb specimens, or the photographers whose talent made them come alive on the printed page. This information follows:

- Fig. 3a. Native copper from Cooper, Keweenaw Peninsula, Michigan, currently in the permanent collection of the Houston Museum of Natural Science; photographed by Harold and Erica Van Pelt, and taken from Wilson & Bartsch (1992).
- Fig. 3b. Native gold from Breckenridge, Colorado, currently in the collection of the Carnegie Museum of Natural History; photographed by Harold and Erica Van Pelt, and taken from Souza *et al.* (1990).
- Fig. 3c. Native silver from Batopilas, Mexico, currently in the collection of Miguel Romero; photographed by Wendell E. Wilson, and taken from Wilson & Panczner (1986).
- Fig. 20. (a) K-edge X-ray absorption spectrum of Mn in MnO₂; (b) scattering mechanisms giving rise to the various parts of the spectrum in (a); from Calas *et al.* (1987).
- Fig. 32. Surface microscopies. a) Scanning tunnelling microscopy, in which an atomically sharp conducting voltage-biased tip interacts with the surface of conducting and semiconducting minerals to produce atomic (or near-atomic) resolution images of the surface. b) Atomic force microscopy, in which a sharp tip senses differences in the "Born" repulsion between the atoms of the tip and the surface, producing an atomic scale "topographic map" of the mineral surface; modified from figures provided by G.S. Henderson and F.J. Wicks (pers. comm. 1993).

REFERENCES

- CALAS, G., BROWN, G.E., JR., WAYCHUNAS, G.A. & PETIAU, J. (1987): X-ray absorption spectroscopic studies of silicate glasses and minerals. *Phys. Chem. Minerals* 15, 19–29.
- HAWTHORNE, F.C. (1993): Minerals, mineralogy and mineralogists: past, present and future. Can. Mineral. 31, 253-296.
- SOUZA, R.A., WILSON, W.E., GANGEWERE, R.J., WHITE, J.S. & KING, J.E. (1990): The Hillman Hall of minerals gems. The Carnegie Museum of Natural History, Pittsburgh. *Mineral. Rec.* 21, 433–468.

WILSON, W.E. & BARTSCH, J.A. (1992): Minerals of the Houston Museum of Natural Science. Mineral. Rec. 23, 33-68.

—— & PANCZNER, C.S. (1986): Batopilas. Famous mineral localities: the Batopilas district, Chihuahua, Mexico. Mineral. Rec. 17, 61–80.