

## How the National Meteorite Collection Supports Astromaterials Expertise in Canada

Richard K. Herd

Natural Resources Canada, Earth Sciences Sector, 601 Booth Street, Ottawa ON K1A 0E8

[herd@nrcan.gc.ca](mailto:herd@nrcan.gc.ca)

### Summary

The National Meteorite Collection of Canada (NMTC) is the largest such collection in Canada, begun in 1854 by Sir William Logan, and is currently composed of about 2700 specimens of 1100 different meteorite falls and finds. It is among the most important resources for astromaterials studies in Canada. The specimens are used for education and public outreach, display, and research in collaboration with other governmental, university and industrial partners across Canada and sometimes internationally. The collection grows by donation, trade, and purchase. An ideal is that there be representation of every Canadian meteorite in the NMTC.

Natural Resources Canada (NRCan), Earth Sciences Sector (ESS), where the NMTC resides is designated as a Category "A" institution under the Cultural Property Export and Import Act, (CPEIA) 1977. It is part of a limited network of collections, in institutions so designated because of their long-standing scientific and curatorial expertise, to hold Canadian cultural property (of which meteorites and tektites of any mass are a part) in perpetuity on behalf of Canadians, according to set standards of handling, curation, public access, environmental conditions and display requirements. This cultural property designation also acknowledges that expertly trained staff are in charge of the collection. The collection and the cultural property designation cannot be easily devolved to any other institution, i.e. it is unlikely that the NMTC could ever be loaned, or transferred to any institution but another designated as Category "A" with respect to minerals and meteorites. It is part of a respected network of Canadian cultural property repositories and expected to be maintained as such.

The NMTC engages in partnerships in Canada, especially in non-destructive and innovative uses of meteorites, to prepare Canada for space exploration and extraterrestrial sample returns (Herd, Samson and Christie, this meeting). A few meteorites are on long loan for display in Québec, Ontario and Alberta. Displays of NMTC material are planned at the Royal Ontario Museum (ROM) and Canadian Museum of Nature (CMN) later this year. The NMTC is open to multiple partnerships with many other institutions, to build curatorial and analytical capacity to improve Canadian astromaterials expertise.

The curator of the NMTC maintains expertise in meteorites and related materials to contribute to the community context of the NMTC. This includes knowledge of: the worldwide meteorite and space exploration literature; the commercial market; and the contents of other collections.

Liaison with other scientists, dealers and collectors has resulted in a doubling of the representation and the number of samples in the NMTC since 1992. The curator also acts as a media spokesperson for NRCan, contributes to research articles and popular information, gives scientific and public talks, identifies samples sent in by the public, sits on advisory committees, including those for the Canadian Space Agency, and helps the astromaterial community to monitor twice-yearly meetings of NASA's Curation and Analysis Planning Team for Extraterrestrial Materials (CAPTEM). The curator is an Expert Examiner for minerals and meteorites under the CPEIA, and prepares and obtains evaluations and certifications of donated or purchased Canadian meteorites as cultural property for income tax purposes.