

## Mineral Sciences Section

### **COLLECTIONS MANAGEMENT POLICIES AND PROCEDURES - Rev. 9/11/2007**

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#### **I. INTRODUCTION**

This document is intended to serve as a guide for the staff of the Mineral Sciences Section in fulfilling its responsibilities with respect to the management of the collections in its care. It complements the existing Museum Collection Policy and the Museum Registrar's Procedures and Forms documents, addressing those issues related specifically to the management of mineralogical collections and to the Mineral Sciences Section in particular.

#### **II. DESCRIPTION OF THE COLLECTION**

The Mineral Sciences Section is responsible for all aspects of the curation of the Museum's collection of minerals, gems, rocks, meteorites and related items. This collection constitutes the most important specimen resource of its type in the western United States. The fundamental responsibility of the Section is to manage the specimens in the collection for the uses they serve in exhibition, education and research, and to preserve the specimens for such uses by future generations.

#### **III. ACQUISITIONS**

Specimens are added to the collection which provide improvements in quality and representation, which reflect new discoveries or occurrences, or which support new exhibitions or scientific and educational activities. The objective is to acquire specimens of the highest quality which are relevant to the purposes of the Museum, and to act legally and ethically in all aspects of the acquisition process.

The basic criteria for considering the addition of a specimen are as follows:

- Is the specimen consistent with the collection goals of both the Museum and the Section?
- Is the specimen so noteworthy that it should receive preferential consideration?
- If the specimen is being offered for sale, could a comparable specimen be obtained as a gift?
- Is the provenance of the specimen adequately documented?
- Can proper care be given to the specimen?
- Will the specimen be used in the future and is there a good-faith intention to keep it in the collection for the foreseeable future?
- Is the specimen encumbered with special conditions set by the donor?
- Will acceptance of the specimen give rise to commercial exploitation?

- Are there any special storage or conservation requirements which have to be considered?

Specimens are acquired for the collection by a variety of methods, including purchase, exchange, donation, or by collecting in the field. Each of these methods carries with it a responsibility for maintaining a complete record of the transaction as well as obtaining the necessary approvals, as described below.

### **III. a. Purchases**

1. Purchases are generally made from a Foundation cost center restricted to the use of the Mineral Sciences Section. Acquisition funds from each applicable cost center (principally the Gem & Mineral Council cost center) are generally budgeted for the fiscal year and, at the beginning of the fiscal year, a blanket purchase order is prepared by to cover all purchases for that fiscal year.
2. At the time of purchase an invoice is obtained from the seller. Possession of the specimen is normally taken at this time, although this need not be the case. An IRS W-9 form (Request for Taxpayer Identification Number and Certification) should also be obtained for all vendors who have not provided one previously.
3. The Section Head provides the invoice and any other necessary information to a division secretary who prepares a purchase requisition and attaches the invoice. The purchase requisition is processed in accord with normal procedures.
4. After payment has been sent to the vendor by the Foundation Business Office, a copy of the fully processed purchase requisition and a copy of the check are returned to the Mineral Sciences Section via the Research and Collections office.
5. Purchased specimens are then catalogued and accessioned in accordance with standard procedures. Copies of the invoice, purchase requisition and check are attached to the Accession Data Sheet.

### **III. b. Exchanges**

#### **III. b. 1. Even Exchanges**

1. Outgoing specimens are recorded on a Specimen Invoice form along with information pertaining to incoming specimens.
2. The Specimen Invoice is signed by the (1) Section Head, (2) Division Chief and (3) Registrar.
3. The specimens are sent following this approval.
4. Incoming specimens are processed in accordance with standard procedures, except that the outgoing exchange specimens are recorded on the Accession Data Sheet as well.

### **III. b. 2. Outgoing Open Exchanges**

1. Outgoing specimens are recorded on a Specimen Invoice form.
2. The Specimen Invoice is signed by the (1) Section Head, (2) Division Chief and (3) Registrar.
3. The specimens are sent following this approval.
4. When specimens are subsequently received to fully or partially complete the exchange, they are processed in accordance with standard procedures, except that data pertaining to the original outgoing open exchange specimens are entered on the Accession Data Sheet as well.

### **III. b. 3. Incoming Open Exchanges**

1. Incoming specimens are processed in accordance with standard procedures.
2. When outgoing specimens are subsequently chosen to complete the exchange, they are recorded on a Specimen Invoice form along with information pertaining to original incoming specimens.
3. The Specimen Invoice is signed by the (1) Section Head, (2) Division Chief and (3) Registrar.
4. The specimens are sent following this approval.
5. A copy of the Specimen Invoice is attached to the Accession Data Sheet for the specimens received on open exchange in the Sectional file and the Accession Data Sheet is marked "exchange completed".

A separate Sectional file containing copies of the aforementioned documents is kept for all open exchanges until such time as they are completed.

### **III. c. Donations**

Potential donations will be considered both in terms of the criteria stated in Part III above, as well as the guidelines stated in Part V (Acquisition of Objects for Museum Collections) of the Museum Collection Policy.

No donation will be accepted when there is reason to believe that an abnormally high evaluation is being claimed by the donor.

The staff will not provide appraisals for donations being made to the Museum, but may recommend qualified appraisers, if requested to do so.

All donations must be accompanied by a suitable instrument of transfer, preferably the Museum's Deed of Gift form. As an alternative, a letter from the donor stating clearly the items being donated and that they are being given without restriction, may be acceptable. If for good reason a suitable instrument of transfer cannot be

obtained, a written explanation accompanying the Accession Data Sheet may suffice.

Specimens in longstanding in the collection, which are lacking in any accession data and other background information, may be accessioned as donations from an "unknown donor" after every reasonable avenue for determining their origin has been pursued.

Specimens are processed in accordance with standard procedures. The Deed of Gift or other instrument of transfer is attached to the Accession Data Sheet.

### **III. d. Field-collected specimens**

Specimens collected by Museum personnel while in the field are processed in accordance with standard procedures. If the field collecting was performed while on a Museum field trip that was covered by a travel request, a copy of the travel request is attached to the Accession Data Sheet.

Specimens received by Section personnel while in the field, which are clearly intended as gifts to them in their capacity as Museum representatives and for which it is not practical to obtain deeds of gift or similar transmittal documents, may be processed as field-collected specimens.

All field-collected material not immediately processed will be stored in an appropriate area and clearly labeled as to locality, name of collector, date collected, travel request number and any other pertinent data.

## **IV. DEACCESSIONS**

Deaccessioning is the process of removing permanently a specimen or object from the collection by exchange, donation, sale, transfer to another Section or Division within the Museum, or through loss or deterioration. All such transactions are governed by guidelines established in the Museum's Collections Policy.

A deaccession by exchange is documented according to the procedure as outlined above. All other deaccessions will be recorded on a Transfer and Deaccession Data Sheet, to be approved by the (1) Section Head, (2) Division Chief, (3) Director, (4) Registrar and (5) Alliance Board for Foundation deaccessions or Board of Trustees for County deaccessions.

A file of all deaccessions will be maintained in the Section.

## **V. LOANS**

### **V. a. Incoming Loans**

Loans may be accepted for valid purposes as stated in the Museum's Collection Policy.

All incoming loans will be documented using the Museum's Loan Agreement form, requiring the approval of the (1) Section Head, (2) Division Chief and (3) Registrar.

If a specimen to be loaned to the Section is received prior to the completion of a Loan Agreement, the Registrar must be notified so that insurance will be in effect during the period until the Loan Agreement is completed and signed by the lender.

An up-to-date inventory of all items loaned to the Section, stating clearly a description of the items and their current location within the Museum, will be maintained in the Section.

A specimen submitted for identification and/or scientific study is generally considered expendable, unless the submitting party requests that it be returned. If the specimen is subsequently determined to be suitable for incorporation into the Mineral Sciences collection, a Deed of Gift should generally be obtained from the original submitting party. In some cases where a specimen has been given to a specific staff member with the clear indication that the specimen is not to be returned to the submitting party, the staff member may transfer the specimen to the museum via a Deed of Gift; however, the name of the original submitting party should be recorded in the collection database as a previous owner.

### **V. b. Outgoing Loans**

Loans may be made in accordance with guidelines stated in the Museum's Collection Policy.

Outgoing loans (except exhibit loans to gem & mineral shows) will be documented on a Specimen Invoice. Loans to qualified institutions will require the approval of the (1) Section Head, (2) Division Chief, (3) Registrar and (4) Director. Loans to individuals will also require a statement of justification with the loan form. Temporary transfers of collection materials within the Museum are considered outgoing loans. Specimens sent out of the Museum for photography, preparation, or other purposes which are for the benefit of the Museum and which are at the request of the Museum are considered outgoing loans and will normally be documented on a Specimen Invoice.

The initial loan period is for a maximum of twelve months although longer loan periods may be approved by the Division Chief for a specific transaction. Loans are renewed annually at the recommendation of the Section Head. The Registrar's Office will notify

the Mineral Sciences Section of the approaching expiration of current loans. The Mineral Sciences Section will inform the Registrar whether to recall or renew each loan. The recommendation to extend a loan renewal beyond twelve months must be approved by the Division Chief prior to notifying the Registrar. Notices of renewal and/or recall will be prepared and mailed by the Registrar. Copies of such notices and subsequent responses received by the Registrar's Office will be distributed to the section. The Registrar's Office must be notified in writing of responses received by the Mineral Sciences Section, as well as any change in the status of loaned materials including loss, damage, or relocation of borrower.

Exhibit loans to gem & mineral shows will generally be documented on a Specimen Receipt. It is understood that such loans are for very short duration (typically three, and no more than six days) and that the specimens will only be handled by an authorized representative of the Mineral Sciences Section. The Specimen Receipt requires approval of the (1) Section Head and (2) Division Chief and should be signed by the Sectional representative and an appropriate representative of the show organization at the time of exhibit installation.

A copy of all documents pertaining to outgoing loans will be maintained in the Section so that an up-to-date accounting of all loaned specimens can be readily obtained.

#### **V. c. Objects placed in the temporary custody of the Section**

Objects placed in the custody of the Section are those specimens or other items which are not owned by the Museum but which are left temporarily in the Section for such purposes as identification, or examination for possible donation, purchase, potential exchange, etc. Such items are not technically loaned to the Museum.

Acceptance of such items will be subject to the discretion of the Section Head. A suitable receipt will be provided for the owner on request. Records of such items and their disposition will be maintained in the Section.

The Registrar must be notified if insurance coverage is to be in effect for such items.

### **VI. COLLECTION ACCESS AND UTILIZATION**

It is the policy of the Mineral Sciences Section to encourage utilization of the collection for legitimate scientific, educational and exhibition purposes.

An attempt will be made to accommodate all legitimate requests for utilization of collection specimens in keeping with Part VIII of the Museum Collection Policy. All requests will be carefully evaluated in terms of the potential impact on the security, conservation and long-term preservation of the specimens involved.

When a cataloged specimen is requested for destructive scientific testing, every effort will be made to provide only fragments from that specimen in such a way that the nature of the remaining specimen is not significantly compromised.

## **VII. SPECIMEN STORAGE, SECURITY and EXHIBITION**

The collection is stored in two principal locations, the Mezzanine Collection Area and the Mineral Sciences Section Office. The bulk of the mineral collection is stored in the Mezzanine. Those portions of the collection which are deemed to require greater security are stored in the Security Room within the Office area. Very high value specimens are stored in the vaults within the Security Room. Specimens of very low value may be stored in the area at the Grand Street Warehouse which is assigned to the Section. Radioactive specimens may be stored in secured areas on the Museum premises, which are not frequented by personnel, so as to minimize human exposure. Very large specimens whose size makes them impractical to house within the Museum and which are not deemed security risks may be stored in other areas on the Museum grounds or at the Grand Street Warehouse. Access to Sectional storage areas are carefully controlled and monitored by Sectional personnel to assure the security of the collection.

Specimens assigned to the Mineral Sciences Section's care remain the responsibility of the Section when they are placed on exhibition. Such exhibition is supervised by Sectional personnel to the extent that the proper handling, security and conservation of the specimens are assured.

The decorative exhibition of specimens in other offices in the Museum is, in general, discouraged. It is only allowed, if proper care and security of the specimens can be assured. Such temporary transfers are considered outgoing loans (See section V.a.). The exact locations of any such specimens are recorded and an inventory of these specimens is conducted annually.

## **VIII. RECORDS-KEEPING**

The maintenance of accurate records is a primary obligation of those responsible for the management of collections. This is especially true when dealing with specimens of high monetary value, as is the case in the Mineral Sciences Section. Much of the records-keeping responsibility of the Section involves records associated with the functions of the Registrar's Office. It should be recognized that the preparation of such records is a team effort, requiring the cooperation and mutual support of the staff of the Section with the Registrar.

### **VIII. a. Catalog**

A fundamental responsibility of the Section is to maintain a catalog of the specimens in the collection. This catalog serves as the means of recording permanently the scientific and other critical information known about each specimen in the collection. The catalog

is now maintained only in computer database form, although the previously used hardcopy catalog is preserved for reference. The following procedure will be utilized in the process of cataloging specimens:

1. The documentation is assembled.
2. The required data is entered into the computer database.
3. An Accession Data Sheet is prepared from the computer data.
4. The Accession Data Sheet is signed by the (1) Section Head and (2) Division Chief and is sent to the Registrar.
5. A copy of the submitted Accession Data Sheet is temporarily filed pending receipt of the completed Accession Data Sheet from the Registrar.
6. A label is prepared from the computer data.
7. A catalog number is applied to the specimen.
8. The specimen is moved to an appropriate storage area.
9. When the Accession Data Sheet bearing the accession number is received from the Registrar, the accession number is entered into the catalog database.
10. The completed Accession Data Sheet is filed in the Sectional accession data file.

When a large collection is received, it is generally necessary to delay complete processing for some period. In that event an Accession Data Sheet for the collection as a whole should be submitted in a timely fashion. After determining which specimens will be cataloged and entering the data for these into the computer database, a detailed Accession Data Sheet is provided to the Registrar along with information regarding the portion of the collection which was not cataloged.

Whenever previously accessioned specimens are cataloged, a corresponding Accession Data Sheet should be generated and provided to the Registrar. If the catalog number of an already cataloged specimen is changed, the Registrar should be notified.

#### **VIII. b. Inventory**

It is understood that the large size of the Mineral Sciences collection (a large portion of which is uncatalogued) and the small number of Section staff make it unfeasible to maintain a comprehensive detailed inventory of the entire collection. Nevertheless, it will be the policy of the Mineral Sciences Section to make a determined effort to maintain on a continuing basis a complete inventory of all the catalogued specimens by updating the DISPOSITION field of the computer database whenever the disposition of a specimen changes. High value portions of the collection (i.e. specimens valued at more than \$1,000) will be completely re inventoried approximately every five years. The Section will institute such policies or procedures necessary to insure that this inventory is maintained at the highest levels of accuracy and completeness.

## IX. BIBLIOGRAPHY

Published works on the curation and conservation of mineralogical specimens are scarce. Of those which have been published, the following are recommended as the best general references in the field.

Brunton, C. H. C., Besterman, T. P., and Cooper, J. A., eds. (1985) *Guidelines for the Curation of Geological Materials*. Geological Society of London, Special Paper No. 17. [An excellent manual of working techniques and procedures on a wide variety of topics.]

Croucher, R., and Wooley, A. R. (1982) *Fossils, Minerals, and Rocks: Collection and Preservation*. British Museum (Natural History) and Cambridge University Press, 60 p. [A useful reference, although the coverage of minerals is very brief.]

Dunn, P. J., Bentley, R. E., and Wilson, W. E. (1981) Mineral fakes. *Mineralogical Record* 12, 197-219. [Excellent reference on the techniques for faking mineral specimens and detection methods.]

Embry, P. G. (1987) Mineral curators: Their appointment and duties. *Mineralogical Record* 18, 389-390. [A brief, but insightful, analysis of (and commentary on) the duties and responsibilities of a mineral curator. This document was formally adopted by the Commission on Museums (IMA).]

Feldman, R. M., Chapman, R. E., and Hannibal, J. T. (eds.) (1989; reprinted 1997) *Paleotechniques*. The Paleontological Society, Special Publication no. 4, 358 p. [Great listing of chemical and mechanical preparation techniques that are applicable to rocks and minerals as well as fossils.]

Howie, Frank M. (ed.) (1992) *The Care and Conservation of Geological Materials – Minerals, Rocks, Meteorites and Lunar finds*. Butterworth-Heinemann, Oxford, 138 p. [Excellent chapters on stability of minerals, effects of light on collections, preserving sulfides, and hazards to those working with collections.]

Leavens, P. B., and Berrett, K. R. (1997) Mineral specimen repair and restoration: Techniques and materials. *Mineralogical Record* 28, 87-94. [Good discussion of the techniques and materials used for mineral specimen repair and restoration, with examples. Also some discussion of the philosophical and ethical considerations. See also the editorial “Mineral specimen repair and restoration: An attitude check” by Kile and Wilson in the same issue.]

Pearl, R. M. (1975) *Cleaning and Preserving Minerals (Fourth revised edition)*. Maxwell Publishing Company, Colorado Springs, Colorado, 86 p. [Although intended for the amateur mineralogist / collector, a useful reference for the curator.]

Sinkankas, J. (1972) *Gemstone and Mineral Databook*. Winchester Press, New York, 346 p.  
[A good source for information on the properties of minerals including data on cleaning and preserving minerals and detecting faked specimens.]

Thompson, J. M. A. (1984) *Manual of Curatorship: A Guide to Museum Practice*. Butterworths, London, 553 p. [A comprehensive reference on all aspects of curation, with good treatments of management and conservation of mineral collections.]

Waller, R. (1980) *The preservation of mineral specimens*. American Institute of Conservation, 8th annual meeting, Reprint 116-118. [The best general reference in the field of mineral conservation.]

White, R.D., and Allmon, W.D. (eds.) (2000) *Guidelines for the Management and Curation of Invertebrate Fossil Collections including a data model and standards for computerization*. The Paleontological Society, Special Publication volume 10, 358 p. [Good general reference on managing collections.]

Wilson, W. E., and Currier, R. H. (2001) Mineral specimen mortality. *Mineralogical Record* 32, 329-340. [A sometimes humorous (in a dark sort of way) discussion of the calamities that can befall mineral specimens at the hands of Man. The numerous tragic stories should serve as a reminder of the damage even curators can cause, if we're not careful.]

The following are highly recommended as indispensable references for anyone involved in collections management, regardless of the nature of the collection:

American Association of Museums and the Association of Art directors (1985) *Gifts of Property: A Guide for Donors and Museums*. 25 p.

American Association of Museums (1978) *Museum Ethics*. 31 p.

American Institute of Conservation (1994) Code of Ethics and Standards of Practice, published in the *Directory of the American Institute for Conservation of Historic and Artistic Works*. Washington, D.C., 21-34.

Malaro, M. C. (1985) *A Legal Primer on Managing Museum Collections*. Smithsonian Institution Press, 351 p.