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THE EVALUATION OF NATURAL HISTORY COLLECTIONS: SOME REMARKS.

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Dealing with the problem of evaluation does not mean that a museum has interest in selling its collections. To evaluate might mean make available a tool of diagnosis and management.

For an essentially practical point of view the current needs of evaluation are:

- insurance of collections stored in the museum and/or of loans.
- appraisal of new collections or specimens to be entered in the museum both for purchases and donations (when required by donor).
- in off-museum dealings where the technicians of the museum act as appraisers.
- the adaptation of new models of management that require the evaluation of the heritage.

These needs imply monetary value. Market references (historic or current) with which it is possible to have a guideline in the process of evaluation:

- buying and selling specimens or collections
- auctions
- traffic between collectors
- taxidermists
- hunting evaluations by professionals or by public authorities.
- ...

These references are clearly insufficient to cover the whole of natural history collections. Therefore, the value of replacement is used in these cases. However, this value is very often impossible to calculate because of the singularities of the material. Consequently, monetary evaluation can become valuable in order to avoid bad uses of the specimens. This affirmation is more clear when we consider that museums must not obtain financial profit from their collections.

Nevertheless, an evaluation of the "quality" of the collections in a museum can be more meaningful. The quality could be expressed in an absolute or relative way by means of several measures. These measures would be dimensions of the collections housed in a museum. The variables that can be more or less quantified are:

- size of collections
- number of type specimens
- amount of information attached to the specimens
- number of specimens of rare, endangered or extinct species
- rhythm of consultations of the collections by the staff of the museum and by external consultants
- methods of preservation and their diversity in each species specific series
- condition of conservation of collections
- rhythm of published works based on museum specimens
- grants or funds devoted to the study or conservation of collections
- number of collectors or donors
- ...

These measures would allow direct testing on the "health" of the collections. The measure of the quality in relative terms could be

- other museums ranking
- own history of the museum: when the museum has results of these tests in different times, we would be able to know the temporal evolution of collections
- goals established by the museum: estimation of the effectiveness of development programmes involving collections

The two latter contexts can be interesting ways to obtain static and dynamic diagnoses of collections. An evaluation according to these points of view can be useful and even necessary for planning and managing the collections.

Fortunately, biology has created methods to compare and study different inventories. These techniques could be easily adapted to the analysis of collections, so that evaluation would become a standard process.

EVALUATING THE EARTH SCIENCES COLLECTIONS AT THE ROYAL ONTARIO MUSEUM

Mrs Janet Waddington, Curatorial Assistant, Department of Invertebrate Palaeontology, Royal Ontario Museum, 100 Queen's Park, Toronto, Ontario, Canada, M5S 2C6.

In 1994 the Board of Trustees of the Royal Ontario Museum approved implementation of **ROM 2000**, a vision statement setting out the goals and priorities of the museum to the year 2000. One objective in achieving this vision is to identify, strengthen, and concentrate on excellence in the museum's collections and research activities. An evaluation of the collections was seen as the necessary first step in identifying areas of excellence.

As a pilot project, the collections of the Earth Science departments (Geology, Mineralogy, Invertebrate Palaeontology, and Vertebrate Palaeontology) were assessed, chiefly for their research value, by a committee consisting of members from each of the four departments. The study looked at coherent subsets of the collections and attempted to determine for each one: a) how significant this collection is at an international, national, or regional level; and b) how this collection might contribute to research results that would be judged by peers to be significant on an international, national or regional level.

In attempting to produce an objective assessment, the committee took into consideration the results of recent external peer reviews of departments' operations commissioned by the museum; records of external use of the collections through research loans and academic visitors; levels of recent grant support for collections-based research by ROM scientists; the record of publications citing ROM specimens; and citations of ROM collections published in external surveys.

The collections were also evaluated for their present and potential use in education, display, public programs and for the level of media interest. The Public Programs and Education division of the museum will be carrying out an independent assessment of the value of the ROM's various collections for their programs.

The process developed in the pilot project will be applied to the evaluation of other collections within the ROM. The final results of the collections evaluations will be used to help focus financial and human resources in areas of

demonstrated excellence in keeping with the vision of ROM 2000.

Ms Emma Watson see Professor Stephen Blackmore

A COMPARISON OF METHODOLOGIES FOR ECONOMIC VALUATION OF COLLECTIONS.

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It was recognised that the market value of most natural science collections does not provide a true reflection of their economic value. Exploratory research was carried out by the Canadian Museum of Nature to develop a methodology to estimate replacement costs of collection holdings. In addition, further research was initiated on developing a capitalized value of collections through the analysis of operational and capital costs, and through an analysis of benefits. The methodologies were applied to the fish collection of the Canadian Museum of Nature. The replacement cost approach required the scientists involved to look at three collecting scenarios (local, accessible by road and isolated locations) to estimate the costs and numbers of specimens collected and extrapolate this across the current collection to arrive at a replacement cost estimate. The capitalized cost approach used historical operational cost data to estimate a capitalized total collection value by treating annual costs as carrying costs of a larger investment. Replacement cost methodology produced a result of approximately \$9 million, while the capitalized cost approach gave a result of approximately \$14 million. The analysis of benefits did not produce useful quantitative results. None of the methodologies provide a true economic valuation of the collection, but the cost approaches do provide a base value from which collections management decisions can be made.

Professor P W Wolnitzer see Professor G D Carnegie

Mrs C M Yang see Kevin K P Lim

ABSTRACTS OF PROPOSED POSTER PRESENTATIONS.

COST OF NATURAL SCIENCE SPECIMEN CONSERVATION VERSUS VALUE OF COLLECTIONS

Ms Katherine J. Andrew, Geological Conservator and Collection Care Consultant, 59 The Common, Abberley, Worcs WR6 6AY

A natural science specimen requiring conservation, such as a small broken fossil, will take a minimum of fifteen minutes to conserve where conservation comprises photography, documentation and minimal treatment. Fifteen minutes of work is the bare minimum; most specimens take several hours, even months or years to conserve. The cost of materials, specialised equipment and laboratory facilities have also to be included in the equation. Conservation of a

15 minute specimen is unlikely to come to less than £5 at current prices.

Occasionally, the £5 figure is viewed with horror and said to be too much, but exactly how much is the specimen worth, or put another way, how much has been spent on it already?

Where is it stored at the moment? Presumably in some kind of container in some kind of cupboard, how much did these cost? Where is the specimen stored? City centre rents are high, heating and lighting and climate control are not included in rent and are on-going costs. How much time did the specimen take to document and pack? Finally, how much did the specimen cost to collect in the first place, or how much would it cost to replace if conservation were not carried out?

These calculations will be expanded and examples given. A common ammonite with good data might have cost four times as much as the cost of conservation to collect, curate and pack with on-going costs every year. The cost of conservation in these terms does not seem excessive, but is only worthwhile if the specimen is properly documented and all preventative conservation measures including proper storage are taken to prevent further damage.

Dr T. Backeljau see Dr Jackie L. van Goethem.

NATURAL HISTORY MUSEUM OF THE UNIVERSITY OF LISBON.

Jose M. Brandao, Museu Nacional de Historia Natural, R. da Escola Politecnica, 58 1294 Lisboa codex, Portugal.

The Natural History Museum was formally created in 1919, assembling the three museums (Mineralogical, Botanical and Zoological) which belonged to the Polytechnic School, precursor of the contemporary Faculty of Sciences.

Almost completely destroyed in March 1978 by a tremendous fire, the N.H.M. has started gradually acquiring new collections, by purchase of specimens in the national and international markets, donations and sponsoring research projects on Master's and Ph.D's Thesis.

Sixteen years after the fire, the building is not yet completely restored. There are no conditions to prepare a new permanent exhibition, involving the three branches of Natural History. So, the most significant parts of the collections are available only for researchers and only a small part of the different items have been displayed in several temporary exhibitions.

Vera Lucia M. Callegaro see Dr Maria Helena M. Galileo

COSTING AND TARGETING COLLECTION CARE IN NORTH WEST ENGLAND - THE NORTH WEST (OF ENGLAND) COLLECTIONS RESEARCH UNIT (NWCUR) SURVEY 1990-1993.

Dr Gary Cleland¹, Velson Horie² and Dr Ian Wallace¹
¹National Museums and Galleries on Merseyside, Liverpool, L3 8EN; ²Manchester Museum, Manchester M13 9PL, UK

The cost of physical care and documentation is a value to be attached to natural history collections. The North West Collections Research Unit (NWCUR) survey set about