

Collections and Research

The Royal Ontario Museum (ROM) is a collections based museum, with an international reputation based on the strength of its collections and research. Numbering nearly six million objects, the Museum's diverse collections of world cultures and natural history holdings makes the ROM one of the largest museums in North America. Curatorial staff study artifacts and specimens to further our understanding of the collections and the world. Since its founding in 1912, the Museum has continually added to its collections of artifacts and specimens through acquisitions, donations and fieldwork. These holdings constitute an invaluable resource for further research and comparative study. Selected artifacts and specimens, chosen for their significance or suitability for display, are on long term display in the public galleries. Artifacts that require short term display may be exhibited as part of a program of gallery rotations; these requirements are typically due to conservation concerns such as risk of degradation from light. Artifacts and specimens not on display comprise a vast study collection that researchers can examine further, use as comparative samples while analyzing new items, or retain for future analysis as new diagnostic technologies become available.

ROM curators are published regularly in peer-reviewed academic journals, produce academic books, monographs and exhibition catalogues, and write many articles in popular magazines, including the ROM Magazine and, at the request of journalists, appear in newspapers and on television addressing a wide variety of subjects. The Museum also hosts the Annual ROM Research Colloquium, a day long event where Collections & Research staff present highlights of their on-going research or news of recent discoveries. The highlight of the Colloquium, the Vaughan Lecture, is the final presentation of the day.

World Cultures

The Museum's Department of World Cultures studies a diverse range of subject matter with a concentration in the geographic areas of West Asia, Far East, Africa, Europe, North America, Central and South America, Ancient Egypt, Greece and the Roman Empire. Curators actively conduct research as art historians, archaeologists, ethnologists and material culture specialists. The diversity of their work is a reflection of the wide variety of objects and collections found in the ROM, ranging from Stone Age implements from China and Africa, arms and armour from Europe, Middle East and Japan, kayaks and costumes of Canada's First Peoples, ceramics from ancient Peru, sculptures from Southeast Asia and mummies from Egypt to 20th-century art and design, including one of the finest and most comprehensive collections of textiles in the World.

Natural History

The Department of Natural History is comprised of 12 collection and research areas: Botany, Entomology, Herpetology, Ichthyology, Invertebrate Zoology, Mammalogy, Mycology, Ornithology, Invertebrate Palaeontology, Vertebrate Palaeontology, Geology, and Mineralogy. Natural History staff are involved in studying the diversity, evolutionary relationships, distribution, and conservation of species from all over the world, including researching and displaying fossilized plants and animals. The department also acquires and studies the best examples of minerals, gems, meteorites and rocks from our planet and solar system.

Research

The ROM, in addition to being a premier tourist destination, is an important research institution. Collections and Research Department staff continue to enhance their expertise by studying existing items in the ROM's collections as well as conducting original scientific or academic research. Many of the ROM's curatorial staff also have cross-appointments with universities where they teach and participate in other joint research projects. Through this connection, many university students and postgraduate students are engaged in curatorial and research projects at the ROM as part their degree programs or as postdoctoral fellows.

The ROM conducts research and field-work activities on a wide variety of subjects in locations that span the globe. Examples of recent fieldwork include the study of bats in the savannahs of Suriname, archaeological field research of ancient cities in north-eastern Syria and off the coast of New Zealand on a research vessel studying parasites of chondrichthyan fishes.

The Museum has numerous labs for conducting analysis of materials. The ROM's renowned Laboratory of Molecular Systematics enables researchers to conduct DNA analysis on biological material. The ROM has a Frozen Tissue Storage Room which is used to preserve genetic resources collections, these specimens constitute a world-class collection and are the most actively studied portions of the ROM's life sciences holdings, with loan requests to conduct DNA sequencing received from labs around the world. The lab known as the Bug Room is used to remove flesh from small animal carcasses, where a colony of Skin beetles (Family Dermestidae) meticulously strip the flesh, revealing the tiniest and most delicate of bones. The X-Ray Lab is used for performing X-ray crystallography on mineral samples to reveal the atomic structure of a crystal. The Scanning Electron Microscope Lab performs elemental analysis of sample materials and is used by various departments at the Museum, such as Mineralogy or Conservation.

Conservation

The ROM, in addition to increasing its collections, also has a duty to conserve and protect them for future generations. The Conservation department is involved in the scientific examination, research, preservation and display of all objects in the Museum. The emphasis of conservation work is to prevent damage and slow natural degradation with much of the effort directed at the care of sensitive artifacts in the World Cultures department. Conservators work collaboratively with curatorial staff to define standards and advise on appropriate conditions for the storage and display of objects, including light, temperature and humidity levels, and air quality standards. Conservators examine objects before they are accessioned, confirming materials and fabrication techniques, identifying previous repairs, investigating the causes of deterioration and noting

vulnerabilities that would affect study, exhibition or loan and they are active participants on exhibition and gallery planning teams.

Conservation treatments are undertaken when objects are damaged by age, accident, history or inherent instability. Objects are stabilized, repaired and restored by Conservators specializing in textiles, paper, decorative art, stone, ceramics, metals and ethnographic objects. Intervention is kept to a minimum to ensure that the objects are safe today, and will remain so for years to come.

Library & Archives

The ROM's Library includes the Main Library & Archives, located on Level 1 as well as the H.H. Mu Far Eastern Library, located on Level 6 of the Louise Hawley Stone Curatorial Centre. The catalogue of the Library & Archives is accessible on-line through the University of Toronto Libraries.

Support for Collections and Research

The ROM's research is supported in several ways including, endowments and external organizations. Among the external organizations that have supported ROM Collections and Research are the Natural Sciences and Engineering Research Council of Canada, Genome Canada, National Science Foundation (USA), World Wildlife Fund, Ontario Ministry of Natural Resources, Department of Fisheries and Oceans, the Nature Conservancy, the Social Sciences and Humanities Research Council of Canada, Australian Research Council, Harvard University and the Canadian Cultural Property Export Review Board (CCPERB).

Several ROM curatorial positions are supported through endowments, including the Louise Hawley Stone Chair of Far Eastern Art, the Bishop White Chair of Far Eastern Art, Bishop White Curatorship of Japanese Art and Culture, Nora E. Vaughan Curatorship of Costume & Textiles, Mona Campbell Chair of Decorative Arts, Curatorship of South Asian Art, and the Canadiana Curatorship.

Collections and Research, as well as other Museum activities, are supported through Named Endowment Funds. Currently there are over 60 named endowment funds that are related to various museum priorities, including the Louise Hawley Stone Charitable Trust, a \$49.7 million fund bequeathed by the late Louise Hawley Stone for the purchase of objects and the production of Museum publications. Louise Hawley Stone's support of the ROM spanned over 50 years and included serving on the Museum's Board of Trustees from 1968 to 1972.