

The 30th Annual Royal Ontario Museum Research Colloquium

Friday, March 06, 2009
Signy & Cléopée Eaton Theatre



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Christian Dior evening dress called *Palmyre* - Automne-hiver 1952 - Paris, France - Gift of Mrs. James Boylen

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PROGRAM

09:15 - 09:30 a.m. **Welcome - Dr. Mark Engstrom, Deputy Director - Collections & Research**

MORNING PROGRAM

09:30 - 09:45 (1) **The First Period Rooms in a Canadian Museum**
Ross Fox, Department of World Cultures, Royal Ontario Museum

In recent years international museologists have given much attention to the definition and relevance of the period room and its place in the modern museum. To date, there has been no equivalent examination in Canada and consequently its place in Canadian museums has not been scrutinized. The Royal Ontario Museum was the first Canadian museum to show an interest in European period rooms when, in 1911, it acquired what is reputedly the first English room in a North American museum. But that was not the first period room in the country. Devoted to early Quebec themes, the first were installed about 1898 in the recently founded (1895) Chateau Ramezay Museum of the Antiquarian and Numismatic Society of Montreal. Significantly, these rooms pre-date the early American rooms of George Francis Dow in the Essex Institute, Salem, and Massachusetts, which have often been incorrectly touted as the earliest in a museum in the United States. Nevertheless the inspiration for the Chateau Ramezay's rooms remains American. This presentation explores some of its probable sources, notably the Memorial Hall of the Pocumtuck Valley Memorial Association in Deerfield, Massachusetts. The motivation for the Chateau Ramezay's period rooms was bound to the burgeoning women's movement of the time, which made great strides in the educational, cultural, artistic, health, and social work spheres. Specifically, they were the creation of the Women's Branch of the ANSM. The real connection between the Deerfield and Montreal organizations would seem to have been the American historian and antiquarian, Charlotte Alice Baker, who belonged to both. She was in fact the first woman member of the ANSM. Baker is best known for her book, *True Stories of New England Captives Carried to Canada During the Old French and Indian Wars* (1897).

09:45 -10:00 (2) Fossil Scorpions from the Silurian (Wenlock) Eramosa Lagerstätte, Bruce Peninsula, Ontario

Janet Waddington, David Rudkin, Department of Natural History, Royal Ontario Museum

Over the past 20 years, finely-laminated shallow marine dolostones of the upper Eramosa Formation (Interbedded Unit) on the Bruce Peninsula have yielded at least nine fossil scorpion specimens representing the earliest appearance of the clade on the Laurentian paleocontinent. Indeed, these are among the oldest and best preserved Paleozoic scorpions known worldwide. Most specimens are of fully articulated animals, with five complete individuals ranging in length (anterior carapace margin to tip of telson aculeus) from 63 mm to 165 mm. Subtle differences between the fossils are likely attributable to taphonomic processes and may not have taxonomic significance; all specimens can probably be accommodated in a single new taxon.

The Eramosa scorpions occur as discrete individuals on bedding planes that reveal no other identifiable biotic elements. One incomplete specimen (a partial abdomen belonging to an individual estimated to have been about 29 mm long) was obtained from within a delimited stratigraphic interval yielding other fossils typical of the marine Eramosa Lagerstätte biofacies, including phyllocarid crustaceans, eurypterids, a 'synziphosuran,' conulariids, and a diverse shelly fauna.

It is suggested that these scorpions were aquatic animals, although preliminary analysis shows that they possessed some features of appendage morphology that are associated with terrestrial locomotion and feeding in post-Silurian mesoscorpions, 'paleosterns' and crown group forms. This potentially separates the Eramosa taxon from all other Silurian scorpions, including the Proscorpiidae, allying it with the poorly known Devonian *Praearcturus* in a separate clade.

10:00 - 10:15 (3) Musings on the Origin of Personification in South Asian Art

Beth Knox, Department of World Cultures, Royal Ontario Museum

Personification in South Asia is the usual device by which weapons or attributes of the deities are represented. The device of personification is recognized from 400 CE in the Hindu tradition when Candrar Gupta II patronized a Visnu shrine at Udayagiri, Madhya Pradesh. At that shrine, Visnu's discus and mace were carved both as weapons and as weapon-personifications.

In my recent research I have shown that personification appears from the time of the first lithic Buddhist shrines at Bharhut (ca. 150 BCE), Bhaja (ca. 90 -70 BCE), and Sanci (ca. 10 – 50 CE). However, among the first instances of personification in South Asia is a coin minted by the Indo-

Scythian king Maues, ca. 90 – 70 BCE, representing the enthroned Zeus reaching to his personified thunderbolt, represented as a small boy with the thunderbolt emerging from his head. Hence, we must now recognize that the device of personification has a longer history than currently acknowledged.

The Greek orientation of this Maues' use of personification raises questions about the origin of personification in South Asia. Does it come from the Greek or is it indigenous? Are there instances in the Mediterranean world which correspond to the manner of presenting personification in the South Asian context? Several examples drawn from the Mediterranean corpus will be introduced in the discussion: Helios and Eros.

10:15 - 10:45

COFFEE BREAK

10:45 - 11:00 (4)

A Passage in the life of a Palampore: Conservation

Shirley Ellis, Conservation Department, Royal Ontario Museum

A previous restoration to an early 18th century Indian cotton palampore (large bed curtain or cover) with a loss required a complex treatment to stabilize it so that it could be displayed safely. Heavy cotton patches adhered to the back with starch paste imposed stresses and tears which needed to be removed. Humidification made removal relatively straightforward, however once removed a residue was left on the textile. Removal of the residue using a methyl cellulose poultice was only moderately successful as the paste was embedded in the fibers. New backing fabric was custom dyed to provide a good colour match, was used to stabilize the upper half. Display on an angled panel provided support while on exhibit.

11:00 - 11:15 (5)

Thick knees, all legs, and fossil “no-bodies”

Dave Rudkin¹, Michael Cuggy², Graham Young³, and Debbie Thompson³

¹Department of Natural History, Royal Ontario Museum

²Department of Geological Sciences, University of Saskatchewan, Saskatoon, SK

³Manitoba Museum, Winnipeg, MB

The “sea spiders” (Pycnogonida) are a poorly known group of marine joint-legged invertebrates whose truly bizarre morphology has confounded biologists since their first formal descriptions over 200 years ago. They are usually considered to share a common ancestry with euchelicerate arthropods (including horseshoe crabs, scorpions, true spiders, and the extinct eurypterids), but the unique anatomy of living sea spiders makes it very difficult to match their basic parts with those of more

familiar relatives. Fossil sea spiders are exceptionally rare, and although recent discoveries have extended the pycnogonid lineage back to the Silurian (about 425 million years before present (MYR BP)), and arguably to the Cambrian Period (about 500 MYR BP), these have shed very little light on the evolution of the group's novel anatomical architecture. In 2007 we recovered a single fragmentary fossil from an Upper Ordovician (445 MYR BP) Lagerstätte deposit in central Manitoba that may hold vital clues to unlocking some of the sea spiders' morphological mysteries. The unique specimen represents the geologically earliest known adult pycnogonid and the first report of the group from the fossil record of North America.

* Presenter

11:15 - 11:30 (6) Surviving Warships of the Period of the Russo-Japanese War of 1904-1905

Corey Keeble, Department of World Cultures, Royal Ontario Museum

Three volumes of drawings and watercolours by W.M. Birchall in the ROM's European Collection document the naval events of the Russo-Japanese War in detail. A small number of actual warships of the same period survive to the present day. They include the battleship Mikasa, Admiral Togo's flagship at the 1905 Battle of Tsushima, and the Russian cruiser Avrora (The latter preserved at St Petersburg, Russia). Some of the fleet units of the Russian navy were U.S. built, and an American cruiser of the period, the U.S.S. Olympia which served in the Spanish-American War, is preserved as a national monument at Philadelphia. A survey of these vessels brings to life the events recorded in the Birchall watercolours, and adds to them a dimension of reality impossible to recover in any other way.

11:30 - 11:45 (7) Holey Aroids – Circular trenching behaviour by leaf beetles (Coleoptera: Chrysomelidae) on Araceae in southeast Asia.

Chris Darling, Department of Natural History

A high percentage of giant elephant ear plants (*Alocasia* and *Colocasia*) plants in Vietnam were discovered to have multiple (up to 50), large (3-4cm), circular holes in the leaves. Field studies in Vietnam, and more recently China, Cambodia, Laos, and Sarawak, have demonstrated that these holes are caused by the feeding behavior of chrysomelid leaf beetles in the genus *Aplosomyx*. The adult beetles use their mandibles to cut circular trenches on the underside of the leaves of their aroid host plants before feeding. Latex is exuded from these cuts and the beetles feed intermittently on these isolated tissues, apparently avoiding the latex. Circular feeding holes occur only in Araceae in which latex is contained in "anastomosing laticifers". The phylogeny of Araceae and the restricted host records suggest the possibility of a coevolutionary arms race and parallel phylogenesis between *Aplosomyx* and its aroid hosts.

11:45 - 1:00 p.m. LUNCH BREAK**AFTERNOON PROGRAM**

- 1:00 - 1:15 (8) A four faced figure from eastern Nigeria. Idol or fantasy?**
Silvia Forni, Department of World Cultures, Royal Ontario Museum

This talk is focused on a peculiar four faced figure collected in Nigeria at the beginning of the 19th century by reverend Gore Munbee Barrow. It was accessioned to the ROM as blood thirsty idol that had seen human sacrifice. While more recent scholarship has demonstrated the bias in such gruesome explanation, this four headed hero remains a rather mysterious figure that challenges the presuppositions of viewers and researchers.

- 1:15 - 1:30 (9) Mayflowers and (false-) Solomon's seals: what's up underground?**
Tim A. Dickinson & Marta Heckel, Green Plant Herbarium, ROM

Walking in southern Ontario woods in the spring, one encounters the inflorescences of mayflowers (*Maianthemum* spp.), Solomon's seals (*Polygonatum* spp.), and false Solomon's seals (*Smilacina* spp.). These leafy flower clusters are just the tips of widely-spreading underground stems (rhizomes) bearing roots as well as tiny scale-like leaves. We expect the cross-sectional anatomy of the stems to differ in characteristic ways from that of the roots. In species traditionally placed in *Maianthemum*, however, this appears not to be the case: their slender rhizomes look more like roots than do the "normal-looking" rhizomes of *Polygonatum* and *Smilacina* species. Is this a reflection of the way in which *Maianthemum* and *Smilacina* species traditionally have been segregated into two genera? Or, is it instead a reflection of differences in size? We will speculate, on the basis of observations made to date.

- 1:30 - 1:45 (10) A Brief Report on the Coffin of a Wab Priest, ROM 910.5 and its Inhabitant**
Gayle Gibson, Education Department, Royal Ontario Museum

Yellow coffins like ROM 910.5 are the most common type remaining from Ancient Egypt. The social status of the men and women buried in them varied from royal to artisan. Many of the lower quality coffins have barely been studied, and the mummies found in them are often left to languish in the coffin or on a shelf in a storeroom. As part of the on-going Royal Ontario Museum-University of Western Ontario Mummy Project, the mummy from the wab priest's coffin was treated to a CT-Scan and other

anthropological investigations, and the coffin was removed from the gallery and opened for the first time in many years. Both procedures have yielded surprising results and added to our understanding of the period of the Early Twenty Second Dynasty. This paper will focus on the coffin.

1:45 - 2:00 (11) Genomics research on extinct and living birds: reconstructing the Avian tree of life

Allan Baker and Oliver Haddrath, Department of Natural History, ROM

The age of genomics has made it possible to obtain sequences of multiple genes from nuclear DNA and use them to reconstruct the relationships among organisms. The resulting field of phylogenomics has been touted as a solution to the problem of estimating species relationships from gene trees, and in some instances has led to radical new hypotheses of species relationships. In this talk I show that this approach is problematical too, because gene trees can be discordant and depict different relationships among species. New methods of analyzing discordant gene trees can help to recover species trees, but it is important to test these trees with independent and rare genomic changes such as retroposon insertions. We therefore used a next generation massively parallel DNA sequencer to help isolate retroposons from an Emu genomic library, and show that recently published trees of relationships of the extinct and living Paleognath birds are incorrect. Both multiple nuclear gene trees and retroposon insertion trees place the flighted tinamous as sister to the flightless ratites, as inferred in traditional morphological trees. Genomics will play a pivotal role in resolving deep branches in the avian tree of life which have puzzled avian systematists for more than a century.

2:00 - 2:30 COFFEE BREAK

2:30 - 2:45 (12) Origins and Biogeography of Bats in South America
Burton Lim, Department of Natural History, Royal Ontario Museum

In spite of the fact that South America was an insular continent during the Tertiary, it has the highest species diversity for many organismal groups, including bats. However, the colonization of South America by bats has been poorly studied, even though they are the second most speciose order of mammals. A review of taxonomy, systematics, distribution, and the fossil record suggest that there were several dispersals to South America within 3 superfamilies of bats. The reconstruction of ancestral areas infers that Africa is the origin for most basal nodes. This implies that the diversification of Neotropical species in (1) Noctilionoidea

occurred after a single colonization of South America from Africa in the Eocene by an ancestor of the families endemic to the New World. Within (2) Emballonuroidea, a similar trans-Atlantic dispersal in the Oligocene gave rise to a tribe in the family Emballonuridae. The situation for (3) Vespertilionoidea is more complex with multiple dispersals from Africa, North America, and the Caribbean beginning during the Eocene in 3 families that have worldwide distributions. After the establishment of the Panamanian land connection in the Pliocene, there were overland dispersals from North America to South America for many species of bats. Although general hypotheses of the origin of bats in South America can be inferred based on previous phylogenetic studies, as new palaeontological data are discovered and comprehensive molecular phylogenies are proposed for more groups, details of historical biogeography, modes of speciation, and times of diversification will be better resolved and corroborated.

2:45 - 3:00 (13) Chinese Yixing (red stoneware) Teapots as a Source of Silver Design, 1675-1825

Peter Kaellgren, Department of World Cultures, Royal Ontario Museum

In the mid-1600s, when tea as a new and fashionable beverage began to be imported into Europe and Britain from China, small red stoneware teapots were included in the shipments. Similar teapots are still made and exported from Yixing in China. The Chinese consider them ideal for brewing the best tea. Imitations in red earthenware and stoneware were made in England, The Netherlands and Germany around 1700. The Yixing teapots also influenced English silver design, initially through rare silver versions imported from China in the late 1600s. In the early 1800s, there seems to have been a renewed interest in Chinese Yixing teapots in England. Certain models inspired a distinctive form of “melon” tea and coffee service which became a classic in English silver and electroplate. This presentation will consider how Chinese teapots affected English silver design.

3:00 - 3:15 (14) Geology and Tourism in Ontario

Vince Vertolli, Department of Natural History, Royal Ontario Museum

Many visitors to Ontario are drawn to the natural beauty of the province including such iconic and world famous sites such as the Falls of Niagara and the Niagara Escarpment. What few realize though is that the physiography or landscape is the product of over 3 billion years of an array of geological processes which include volcanism, sedimentation, plutonism, mountain building, faulting, erosion, burial, uplift, weathering and glaciation.

This presentation will focus on a number of sites throughout the province and describe the geological processes that formed them.

3:15 - 3:30 (15) A Chinese tomb of AD 150 from China's Northwestern frontier in the ROM

Klaas Ruitenbeek, Department of World Cultures, Royal Ontario Museum

In 1925 the ROM acquired a group of stone columns and frieze beams from a tomb of the Eastern Han dynasty (25-220 CE) discovered in 1924 near Lishi, Shanxi province. The stones, decorated in shallow relief, bear inscriptions dated 150 CE that identify the tomb occupant as a man named Zuo Biao, a staff member of the Chinese military envoy who had to oversee relations with the Xiongnu people on Han China's northern frontier. Only part of Zuo Biao's tomb was brought to Toronto; half of the stones remained in China, with little known about them. Only in 2003 was it possible to locate and investigate the stones in China. In that year, the ROM and the two museums in Shanxi that keep stones from Zuo Biao's tomb exchanged rubbings taken from the stones. Using these, and information from excavations of tombs closely related to Zuo Biao's tomb discovered in the 1990s, it was possible to create a reconstruction of Zuo Biao's tomb in the ROM's new Chinese galleries. This paper sketches the historical and religious context of this important Eastern Han tomb, and discusses its position within the corpus of Han-dynasty stone monuments.

3:30 - 4:00 COFFEE BREAK**4:00 - 4:15 (16) The pottery jug that was not eaten (ROM G1779)**

Karin Ruehrdanz, Department of World Cultures, Royal Ontario Museum

This is the story of a small jug made from red clay. It ended up in obscurity because of its modest appearance. There was a time, however, when such plain shining pottery vessels were much sought after. During the 16th and 17th centuries they were part of imperial table ware and kept in collections of marvels (Wunderkammer) because they were believed to have magical properties which could be transferred to the liquid they contained. It is reported that they were also eaten in order to profit directly from the benevolent effects of the clay on health. In the paper, the fate of the ROM jug is explored in the context of early modern natural magic and its impact on the Ottoman and Habsburg Empires and New Spain.

4:15 - 4:30 (17) A new group of cichlid fishes from the Guiana shield highlands – discoveries from the “Lost World” in the field and in the lab

Hernán López-Fernández, Department of Natural History, ROM

The upper Mazaruni river drains the eastern edge of the Guiana Shield in northern South America, one of the oldest highlands in the World, famous for having inspired Sir Arthur Conan Doyle's novel "The Lost World". True to its literary fame, the Guiana Shield harbors flora and fauna that occur nowhere else. Discovery of the extent of this uniqueness and understanding of its origin are still very much incomplete, and this area is a focus of investigation for various researchers at the ROM. The Mazaruni has been known for some time to harbor extraordinary fishes, including several new genera and species. However, this knowledge came mostly from few short visits by European aquarium enthusiasts, and detailed ichthyological survey was long overdue. During April 2008 the ROM-Ichthyology section carried on an expedition to the upper reaches of the Mazaruni River in Guyana. It was the first ichthyological expedition to the area. We explored the main river and two of its largest tributaries, the Kukui and the Kako, collecting a total of 32 species and tissue samples for DNA analysis of all of them. Of these, most are new to science and some represent still undescribed genera in the families Crenuchidae, Loricariidae and Sternopygidae. We also collected three species of the cichlid genus *Mazarunia*, which is restricted to the Mazaruni river. The family relationships of this genus had remained unstudied until now because only two specimens were available for scientific study until the ROM 2008 expedition. Taking advantage of the new collections, I used DNA sequences of all three species to place *Mazarunia* in the cichlid family tree. The results revealed a previously undetected group of cichlids restricted to the Guiana Shield, including *Mazarunia* and the genus *Guianacara*, which occurs in nearly all major river basins draining the shield. It appears that *Mazarunia* has been isolated from all other cichlids for a long time, as have most of the unique fishes of the Mazaruni river. I use models of evolution of DNA sequences from *Mazarunia* to calculate the age of the group, and to estimate for how long the strange fishes of the Mazaruni river have been isolated in one of the most remote regions of the "Lost World".

4:30 - 4:45 (18) Becoming Wari: Creating International Identities in Ninth Century AD Peru

Justin Jennings, Department of World Cultures, Royal Ontario Museum

Understanding the spread of the world's first civilizations is one of the greatest challenges for archaeologists. Long thought to have been the result of great migrations or imperial conquests, it now appears that civilizations were often the result of more complex interactions that included colonization, migration, emulation, and resistance. I describe in this talk the Wari civilization in Peru (600-1000 AD) and show how the civilization was created through a variety of mechanisms. In particular, I describe the impact of Wari in the Cotahuasi Valley in the ninth and tenth centuries AD. Dealing with divisive change during the period, the people

living in the valley sought solace in a broader Wari social identity that linked them to other groups in Peru.

4:45 - 5:00 (19) ROM's Ancient Egyptian Book of the Dead Resurrected

Roberta Shaw and Janet Cowan, Department of World Culture & Department of Conservation, Royal Ontario Museum

Several years ago a scholar from Bonn University came to look at our collection of Egyptian papyrus fragments and discovered that many of them belonged to the same document. Close examination revealed this to be a late period 'Book of the Dead', a beautifully illustrated text of about 8 meters in length. Although very fragmentary, the document is almost complete. Through the generous support of the Friends of Ancient Egypt we were able to bring back the scholar and two specialist conservators to undertake the difficult task of arranging the fragments and unrolling portions that had not been seen since the time of burial. ROM curator Roberta Shaw will discuss the historical context and content of this very fine manuscript and ROM conservator Janet Cowan will outline the conservation work undertaken to preserve it so that this priceless treasure is now available for scholars and museum visitors to study and enjoy.

5:30 - 6:30**VAUGHAN LECTURE:**

Alexandra Palmer, Department of World Cultures, Royal Ontario Museum.

Christian Dior: History & Modernity

The Paris haute couture salon of Christian Dior opened on 12 February 1947, in the aftermath of the Second World War. Overnight Dior was internationally known as the fashion designer who saved Paris couture by designing the New Look, a style with rounded shoulders, cinched in waist and long skirts. He evoked the great historical political and artistic moments of France. Christian Dior was a master of the *avant garde* working in traditional haute couture techniques that reworked historical styles, construction and cut to offer new fashions as well as new techniques for production. Dior's idea of femininity reframed and dominated women's fashion in the post war years.

The name of Christian Dior was a cultural and economic phenomenon. A visit to the haute couture salon or the boutique was a must for tourists in Paris. Within six years, the corporation had expanded to include eight companies and sixteen associated enterprises across five continents. The house of Dior was the first couture enterprise to create and control its own name through extensive licenses that ranged from perfume, stockings, shoes and bathing suits to men's ties. It was an unprecedented growth that made the house of Christian Dior account for fifty-five percent of all Paris exports, and an international household name.

This talk will discuss how Christian Dior became, as Time Magazine noted, "*Atlas, holding up the entire French fashion industry*" in the 1950s.

