



There is something new at MPE!

The museum received a plethora of donations !!!

Donation of specimen cabinets

On Thursday April 8th, 2010, we received a donation of 16 specimen cabinets at the *Laboratory for Conservation and Research – MPE (Laboratoire de conservation et recherche – MPE)*, situated in the South-West borough of Montreal. This donation comes from the **Canadian Museum of Nature (CMN)**, which is replacing their specimen cabinets for their paleontological collection at the Natural Heritage Building in Gatineau. This donation adds to the twelve cabinets previously given by the CMN for a total of 28 !

It is important to note that these specimen cabinets are fireproof. Without this wonderful donation, the MPE would have had to procure similar cabinets, which would have cost at least \$2000 each. We can easily appreciate the value of the donation of the MCN - in the neighborhood of \$ 50 000! M. C.



Alain Arsenault (right) lending strong hands during the delivery of 16 cabinets last April 8th. We also thank David Beaudriault and Martin Dubreuil for their help.

Periodicals, reprints, microscopes, hammers, etc !

In November 2009, Professor Michel A. Bouchard, geologist at the University of Montreal informed us that he wished to donate about 100 boxes containing all sorts of documents concerning geology, paleontology and other natural sciences. Coming from his research library, this donation included, among other things, documents having belonged to Professor John Elson, which Mr. Bouchard had rescued in the past.

Among the documents, we noted complete series of the following periodicals: Canadian Journal of Earth Sciences; Journal of Sedimentary Petrology; Sedimentology. Furthermore, there are a good number of bulletins and memoirs from the Geological Survey of Canada as well as a great many reprints. Also included with this donation were two microscopes, one polarizing made by Zeiss, and one stereoscope with light included, made by Wild. Finally, some memorabilia, including the geologic hammer that belonged to Léo Morin, the first director of the Geology Institute, which became the Geology Department of the University of Montreal in 1942. M. C.





Hans J. Hofmann Research Library

Following the opening of the Hans Hofmann Hall at the Archeological Complex of Pointe-du-Buisson in the fall of 2009, Professor Hofmann informed us that he had the intention of giving us a part of his research library. On December 1st, 2009, we went to collect this donation at McGill University, which consisted of 22 boxes. We found the following periodicals: Geology (GSA); Astrobiology; Journal of Geology. There were a great number of program and abstract volumes of the GSA and GAC/MAC meetings, bulletins and memoirs of the Geological Survey of Canada, reports of the Department of Natural Resources of Québec, etc. This donation is particularly precious due to their “tenure” and the percentage of documents that touch paleontology.

As we write these words, we regret to inform you of the passing of Dr. Hans J. Hofmann, which occurred Wednesday, May 19th, 2010. His death leaves a great



void in the scientific community, locally and worldwide. He was a paleontologist known the world over for his pioneering discovery of Precambrian fossils that clarified knowledge of primitive life on our planet.

M. C.

Professor Hans Hofmann on an excursion to Rivière Ouareau in preparation for the CPC 2006, which was held in Montreal and co-organized by the MPE.

Géographie physique et Quaternaire and Revue de géographie de Montréal

The research library, which is distributed among different rooms in the *Laboratory for Conservation and Research – MPE* received another expansion thanks to the donation of Professor Pierre J.H. Richard, paleobotanist and palynologist at the Geography Department of the University of Montreal. This donation consists of the complete collection of the periodical *Géographie physique et Quaternaire* (1977 to 2007) and also its precursors, the *Revue de Géographie de Montréal* (1964 to 1976) and the *Revue canadienne de Géographie* (partial collection from the early 1940s up till 1964). Professor Richard was the editor in chief of the journal *Géographie physique et Quaternaire* which ceased publication in 2007.

M. C.

150 books on Paleontology, Anthropology, Dinosaurs and Evolution

In the spring of 2010, Martin Dubreuil and Mario Cournoyer sorted about 75 boxes of documents. Among these boxes donated by Martin Dubreuil to the MPE more than 150 books on paleontology, anthropology, primatology, dinosaurs, evolution, etc. were found. We found, among other things, the book of Camille Flammarion: *Le monde avant la création de l'homme* “The World Before the Creation of Man” from 1886!

The rest of the boxes (about 60) contained magazines, photocopies of articles and documents that related to paleontology.

M. C.

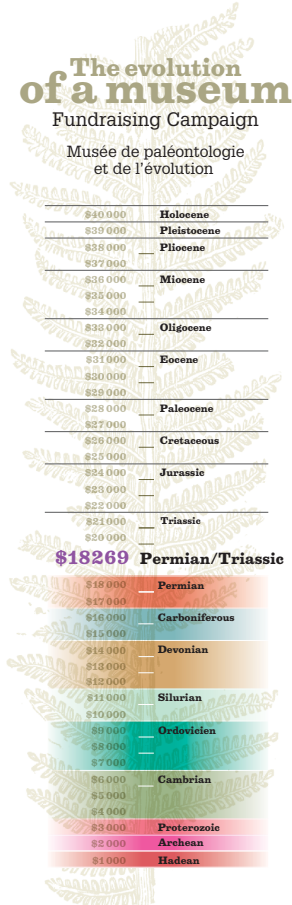


Fundraising campaign "A quickly evolving museum"

There was a lot of advancement for the funding campaign "A quickly evolving museum" since the bulletin of November 15, 2009. We have reached the sum of \$18 269, tripling the previous total. In all, 53 grants have been received. We invite you to consult the list of donors below.

To the total of \$18 269 we must add the contribution of the **Canadian Geological Foundation**: \$8507.73, which is to be used in the purchase of a stereoscope. That brings the actual total to \$26 676.73, and allows our campaign to reach two thirds of the target total of \$40 000.

During the next few weeks, we will adjust the objective and make some changes to the fundraising campaign, in keeping with the success that it generates.
M. C.



2000 \$ and more

Canadian Geological Foundation
Frank Habets
Nathalie Normandeau, Deputy premier and Minister of natural resources and wildlife

De 500 \$ à 1999 \$

Marguerite Blais, Minister of seniors and deputy of Saint-Henri-Sainte-Anne;
Jean-Pierre Guilbault, member of MPE,
Pneu et Mécanique Sylvain Thériault; Clan Panneton - Movers; Diane & Daniel Beaudriault, members of MPE

De 100 \$ à 499 \$

David M. Rudkin of Royal Ontario Museum, Bret Bennington of Hofstra University in Hempstead New York, Sylvie Pinard of Mount Royal College Calgary, Steve Cumbaa of the Canadian Museum of nature, Pierre Richard of the University of Montreal, C. Richard Harington of the Canadian Museum of nature, Alison Murray of University of Alberta, Jim Haggart of Natural Resources Canada Vancouver, Kim Conway of Natural Resources Canada Sidney BC, Karine Boivin-Roy member of MPE, Nathalie Dupont, Jean-Christophe Boitard, Luc Pelland member of MPE, Jean-Yves Pintal member of MPE, Réal Daoust, Elsa Mustière & Christophe Hellman members of MPE, Madeleine Poulin member of MPE, Jacques Letendre member of MPE, Chantal Claude member of MPE, Pierre Cournoyer member of MPE, Nathalie Daoust member of MPE, Stéphane Perron member of MPE, Mario Cournoyer member of MPE.

Moins de 100 \$

Guy Blanchard, Michel Deschênes, Marc Plouffe, Martial Genest, Ingrid Birker of Redpath Museum, Snežinka Koen, Nadia Corneau member of MPE, Michel Chartier member of MPE, Jacques Lachance member of MPE, Véronique Poirier member of MPE, Jean-Yves Landry member of MPE, Martine Lapointe member of MPE, Daniel Zuckerman of Peinture Cité, Pierre Brunel, Sophie Germain, Mélanie Letendre & Patrick Thibault members of MPE, Christian Thériault member of MPE, Centre dentaire Ginette St-Roch member of MPE, Daniel Lapointe member of MPE, Normand Pineault member of MPE, Louis Germain, Pauline Beaudet member of MPE, Ginette Cournoyer member



Donation from the Canadian Geological Foundation



On May 18th, 2010, we received a favorable response to our request for a donation from the Canadian Geological Foundation. We had asked the Foundation to support us financially to buy a Leica brand stereoscope, equipped with a telescopic arm and a digital camera. The Foundation agreed to pay the \$8507.73 needed to purchase the microscope.

Not only will this microscope facilitate our research tool needs, but it will also undoubtedly speed up the scanning of fossils for our cataloging. Also it will simplify the photographing of specimens that will be presented on our website, which should be online this summer.

In another vein, the microscope will also be used to present specimens to visiting youth groups of district day camps this summer.

This gift from the Canadian Geological Foundation in the amount of \$8507.73 pushed the thermometer of the fundraising campaign "A quickly evolving museum"! In addition to jumping over more than eight "geological ages", leading to the Cenozoic (age of mammals), this gift has skipped the Mesozoic: the age of dinosaurs! Not to worry; we will still produce a series of thermometers which will recount the tumultuous history of the rise (and extinction) of dinosaurs and other life forms that populated the Mesozoic.

M. C.



Hiring of a student for the summer

Thanks to the Canada Summer Jobs 2010 program, the MPE was able to hire a student this summer. The federal government will pay the equivalent of minimum wages and social charges for 10 weeks. The MPE has enhanced its offer: the student will be engaged for 12 weeks at \$15 per hour. Thanks to the generosity of its friends, the MPE can afford to be generous in turn. We greatly encourage you to continue to give.

The successful candidate is named Emeline Raguin. She is completing a master's degree in anthropology at the University of Montreal, under the direction of Michelle Drapeau, and begins her PhD in the fall. She has experience in the field of human fossils and is excited to extend her experience to other kinds of fossils.

We had 15 candidates, but two stood out clearly from the lot: we chose the candidate whose qualifications and interests most approached the work, which is primarily to catalog the collection. In addition, she will spend a few days receiving children from day camps of nearby schools, as well as accompany one or two groups to the Hanson quarry in Laprairie. There are currently nearly 40 000 specimens to catalog, and work on the business plan should begin soon. However, it is impossible to plan the museum without a good knowledge of the collections. Emeline's work is invaluable.

We wish to thank Mr. Thierry St-Cyr, MP for Jeanne-Le Ber for his continued support in our cause. Current conditions (first request on our part, budget cuts) were that our bid had little chance of being accepted. But Mr. St-Cyr, who is also a member of the museum, has an important role to play in the granting of awards and has demonstrated great consistency in his ideas. We should consider ourselves lucky to have him as a supporter.

J.-P. G.



A return to *Maclurina manitobensis* from the Gillis Quarry

The contribution of the MPE to the 19th Conference of the Palaeontological Division of the Geological Survey of Canada, from the 10th to 13th September 2009 in Sudbury, was a poster reporting the possible discovery of the largest ever observed Paleozoic gastropod (Cournoyer and Rohr, 2009). It was an incomplete specimen of *Maclurina manitobensis* (Whiteaves) from the Gillis Quarry, in the Upper Ordovician of Garson, Manitoba. We must follow up on this poster as important new data have emerged that contradict this tentative conclusion. Bob Elias of the University of Manitoba and Graham Young of the Manitoba Provincial Museum, wrote us to correct our identification. The bottom photo of the third column in the poster (Fig. 1 here) is indeed *Maclurina manitobensis*, but the largest specimen of the field photos, showing an uncoiling specimen (Fig. 2), would instead belong to the cephalopod *Wilsonoceras mccharlesi* (Whiteaves), in which the uncoiling of the adult shell is typical. They sent us an example - photo Fig.3.

Our objection: how is it that we see no septa in the last whorl? Bob and Graham responded that the test could have been broken along the outer wall, or that the septae of the last whorl were not preserved. They remarked that Garson cephalopods are mostly fragmentary and that the preservation of septae can be very uneven (Fig.4).

The diameter of the specimen in Figure 1 can still be estimated to at least 23 cm with a minimal risk of error. This makes it one of the largest Paleozoic gastropods. The record (25.5 cm, see Cournoyer and Rohr, 2009) is held by another *Maclurina manitobensis* from the Bighorn Dolomite (Upper Ordovician of Wyoming).

We thank Bob Elias (University of Manitoba) and Graham Young (Manitoba Museum) for their constructive comments and David Rohr (Sulross University, Alpine, Texas) for his support.

J.-P. G.

Reference :

Cournoyer, M.; Rohr, David M., 2009. In search of the largest Paleozoic gastropod. Poster, 19th Canadian Paleontology Conference (GAC, Pal. Div.), Sudbury, Ontario, September 10th -13th, 2009.



Figure 1 Photo Mario Cournoyer



Figure 2 Photo Mario Cournoyer



Figure 3 Photo Robert Elias



Figure 4 Photo Robert Elias



Ottawa Visit

On March 10th, Mario Cournoyer and Jean-Pierre Guilbault, respectively president and vice president of the MPE, went to Ottawa to visit supporters and members of the museum. They began their day at the offices of the Geological Survey of Canada, 601 Booth Street, with Mrs. Jean Dougherty, curator of invertebrate collections. The Geological Survey in fact has a collection of hundreds of thousands of fossils stored in the basement of 601 Booth, which is rarely consulted. Much of this material could be lent to any museum that makes a request, except for type specimens, which are obviously untouchable. The MPE is particularly interested in their Anticosti collection because it would ideally fit in an exhibition on the Ordovician. During our visit we had the pleasure of meeting the paleontologist Paul Copper, who has spent many years studying the fossils of Anticosti and is a longtime friend of the MPE. He is now "retired", which does not prevent him from splitting his time between his estate in Cahors, France and his fossils in Ottawa.

In the afternoon, Mario and Jean-Pierre visited Mr. Frank Habets who donated \$8000 last fall. We wanted to thank him and also see his collection of fossils. Frank is obviously a big fan of trilobites, but he also has material from other phyla, almost all of them from the Paleozoic (see bulletins in December 2008 and May 2009). The preparation work was done by an Alberta company whose expertise is evident.

Mario and Jean-Pierre finished their day with Jacques Letendre, member of the MPE, a geologist (exploration for diamonds), and father of two other members (Melanie Letendre and Marie-Soleil). Jacques has expressed his desire to become more active in the Museum in the months to come.
J.-P. G.

Toronto Visit

On Monday 12th and Tuesday 13th of April, Mario Cournoyer and Jean-Pierre Guilbault visited the Queen's city (of traffic) to meet David Rudkin and Janet Waddington, both paleontologists in the Natural Sciences section of the Royal Ontario Museum (ROM). We first met Janet, who had already asked us (at the Sudbury CPC in September) if we would be interested in a piece of Gunflint Chert (Lower Proterozoic of Ontario). The proposal eventually became an exchange of specimens. We brought them a collection of nearly 500 specimens of invertebrates from the Champlain Sea, representing 33 species, mostly from St-Nicolas. In return, we received: a stromatolite from the Pethei Formation (Lower Proterozoic, Great Slave Lake), some *Conophyton* which are Middle Proterozoic stromatolites from Lake Superior, and Gunflint Chert as promised, archeocyathids from the Forteau Region (Quebec/Labrador border), rudists from Jamaica, and classic eurypterids from New York. Janet showed us some of the collection of invertebrates, which was sufficient to occupy a good part of the visit. We also discussed issues of collections and evaluation of specimens, and museum methods of the ROM.



Ms. Janet Waddington (center) and Jean-Pierre Guilbault (right) admire Ediacaran fossils from Australia and Newfoundland.



Toronto Visit (cont.)

In the afternoon, on our own, we visited the galleries of vertebrates: mammals and dinosaurs. These galleries have a total area 15,600 square feet (1450 m²) which accommodate 25 dinosaurs and 30 mammals, far beyond anything that the MPE could ever do.

These exhibitions have a number of interactive touch screens, the same as in the Canadian Museum of Nature. We were very impressed by the composition of the exhibition. The gallery on the Paleozoic and Precambrian (8,000 ft²) is now empty and will soon be completely renovated.

The next morning, we spent two hours with David Rudkin, assistant curator. Jean-Pierre had prepared a long list of questions and David was very patient. To the surprise of Jean-Pierre, we were able to ask all of the questions and get them answered. The questions covered topics as varied as the financing of museums, computer graphics companies, insurance, evaluation of the fossils, business plans, promotion of a museum, exhibition area, the possibility to exhibit on the theme of evolution, etc. David took note of the questions that he could not answer immediately and sent us full information by email on April 22nd. His answers will be very useful for the future of our museum. In conclusion, we think that this visit was a very profitable investment for the MPE.

J.-P. G.

Écho des activités de terrain en 2009

In 2009, the MPE organized, as almost every year for a decade, a visit to the Saint-Nicolas sand pits, near Quebec City. On this tour, which took place on May 2nd, some bones were collected by the participants. However, the most remarkable specimen, without a doubt, is the one discovered by Mrs. Isabelle Roy, from Lévis, Qc. It is a tooth which, due to its small size, probably belonged to a ringed seal (*Phoca hispida*), a species whose presence in the Champlain Sea deposits at St. Nicolas has been documented by other specimens. The tooth is represented by a crown, without the root (the crown was probably detached at one time or another during the ~10,000 years that have elapsed between burial and discovery of the specimen), composed of four sharp cusps characteristic of cheek teeth of these seals, which feed mainly on fish. Surprisingly, this is the first time in more than fifteen years of prospecting that dental remains are found at the site of Saint-Nicolas. The crown, which measures 5.72 mm long by 3.46 mm wide, illustrates the idea that the “smallest” discoveries are sometimes the most important.

M. Ch.



Jean-Pierre Guilbault (left) and David Rudkin (right) attempt to reinvent scientific museology!



Business Plan

Last January 5th, the steering committee for the strategic plan met at the office of Charles Gagnon to conclude this undertaking. The three members from the MPE recalled that the report of Desjardins Marketing was weak on some points, especially on the “evolution” side of the museum. Charles explained that the report was nevertheless sufficient to proceed with the business plan and that there was indeed some urgency to proceed. If we want a space in the *Nouveau Havre* project (“New Haven project”), we have to make a business plan and have technical studies running by January 2011. RESO is ready to make great efforts to help us in this goal. If we miss the opportunity, we must fall back on sites that are much less interesting.

In the days that followed, members of the Board assisted by Jean-Marc Ethier and Nadia Corneau were consulted and concluded that we were not yet ready to launch a museum of 1000 m² within 5 years. In addition to having a collection largely not yet cataloged and with very little transferred to media, we do not feel comfortable with the mission proposed by Desjardins Marketing. Under the direction of Nadia, we made a series of meetings in January / early February where we defined the following mission:

To show and preserve, through exhibitions, collections and research activities, the fossil heritage of Quebec and to make the concepts of evolution accessible.

This formula is certainly shorter than that proposed by Desjardins Marketing, and it differs in one essential point: the emphasis on evolution. Then we asked ourselves how we would present the concepts of evolution in our museum. We concluded that we should involve an experienced popularizer, but in the meantime, Jean-Pierre went on a trip to Africa for three weeks (February 11-March 2) and the whole process stopped. The meetings have not resumed. The recent trend among board members is rather to suggest that, yes, we are ready; but in a museum a little more modest, say 500 to 600 m².

Regarding the new mission, we had one reservation: why were we trying to force ourselves to make acquisitions of Quebec fossils only? We have discussed these issues with various people with experience in museums, particularly in Toronto, and their suggestion was that the mission should not be interpreted narrowly or be an impediment to the acquisition of good material regardless of its origin.

Since we decided to go ahead with the business plan, the first meeting in this direction with Charles Gagnon is now scheduled for June 16. This meeting should enable us to start writing a specification and launch a call for tenders.

J.-P. G.



Rear, from left to right, Jacques Lachance, Michel Chartier, Jean-Marc Éthier, Jean-Pierre Guilbault. Front, left Diane Beaudriault; right Daniel Beaudriault. Missing from the photo: Mario Cournoyer and Nadia Corneau, meetings guide.



Laboratory for Conservation and Research - MPE

In November last year, the *Laboratory for Conservation and Research – MPE* underwent a major improvement: the addition of one room, thus increasing the lab's total surface to 500 ft². This will be dedicated to storing the museum's collections.

In December, we installed the 12 cabinets that the Canadian Museum of Nature had given us in recent years. Finally, our most important specimens could be deposited. Subsequently we organized a series of shelves above the cabinets that will be used to store less important specimens in smaller boxes made for this purpose.

The old area used to store the collection was now free, and with the donations of books, periodicals and reprints we received, the research library of the MPE could be organized. We finished the shelves containing the periodicals. Other documents such as bulletins, memoirs and geological reports can be found in shelves installed in other rooms. We also installed three other cabinets in the main room (see photo - right). This area also remains large enough to hold business meetings, accommodating up to a dozen people. Diane Beaudriault and Mario Cournoyer last winter began the inventory (and entry into the database) of the library of the MPE.

This new area dedicated to collections allowed us to store most of the fossils at the Museum. In addition, having 16 cabinets located in the laboratory allows us to physically organize the classification of fossils.

Our choice was to organize by geological age (Ordovician, Silurian, Quaternary, etc.) and we have also reserved two cabinets for sedimentological and biological samples.

In the cabinets, we will store fragile or rare specimens, and fossils that have been published. Specimens that were identified by specialists and serve as references or even beautiful fossils that can be used in exhibitions will also be given priority. Doubles or poorer quality specimens are stored in solid cardboard boxes and are deposited on top of the cabinets on the shelves.

In the fall of 2009, there were approximately 8000 specimens cataloged in the database. Good efforts have been made in cataloging this winter and we now have 16 226 specimens cataloged and stored in four cabinets and on the shelves. Close to 40 000 specimens remain to be cataloged! Fortunately we have a student who will lend us her hands for cataloging this summer.
M. C.



Fireproof collection cabinets given to us over the last few years by the Canadian Museum of Nature. With these cabinets, our scattered collection was quickly organized!



The old storage room transformed into an office with the MPE research library. On the left are two microscopes given to us by Dr. Michel A. Bouchard.



Meetings

On January 12th, Jean-Pierre Guilbault and Mario Cournoyer were visited by Mrs. Marie-Eve Proulx, a lecturer at the Department of Museology at the University of Montreal. She gives, among other things, a course named "Natural history collections and their development." She was pleasantly surprised to see the extent of our collections and our facilities. She has offered to talk to her students during the winter of 2010 and to her colleagues in the department. Perhaps the MPE could serve as an example for a study on the establishment and startup of a museum of natural history.

On January 14th, Mario Cournoyer and Jacques Lachance met the MP for Jeanne Le Ber, Thierry St-Cyr, in his office. He could not give us money, but he joined the Museum, which indicates a definite interest in our project. In addition, note that his support was crucial for obtaining funds from Summer Jobs Canada 2010.

On March 29th, Josée Demers, Nora Hamadou and Lysbertes Cerné of the Scientifines came to visit the *Laboratory for Conservation and Research – MPE*. This courtesy call was to establish a first contact. The Scientifines, a group of teachers who popularize science among young girls, have been established in the South-West for 21 years. The MPE hopes to organize activities with them in the years to come.

On March 30th, Mario Cournoyer, Jacques Lachance and Jean-Pierre Guilbault met in their office with the borough mayor, Mr. Benoit Dorais and his political aide, Mr. Eric Cimon. The meeting went well and they were both interested in our project. We explained that we needed a little space for a temporary exhibition on fossils of Montreal in about a year and a larger space for the permanent museum. No room was available, but the mayor assured us of his cooperation if an opportunity presented itself.

On May 5th, Mario Cournoyer, Jean-Pierre Guilbault and Michel Chartier had the pleasure of receiving Chris Cameron, professor at the Department of Biological Sciences at the University of Montreal, and two of his master students, Javier Luque and Paul Gonzalez, at the lab. Professor Cameron is interested in the evolution and phylogeny of marine invertebrates (You can visit his web page at:

<https://www.webdepot.umontreal.ca/Usagers/cameroc/MonDepotPublic/Cameron/>),

and wanted to explore the invertebrate fossil collections of the museum. We can say with no exaggeration that Dr. Cameron and his students were impressed by the fossils they could examine and that they were excited by their visit. Hopefully this first meeting will promote the establishment of durable links between the MPE and members of the teaching staff at the University of Montreal.

M. C., J.-P. G. and M. Ch.



Visite to the Electron Microprobe Laboratory in Ottawa

Last fall, Mario Cournoyer and Michel Chartier went to the electron microprobe laboratory at the Canadian Museum of Nature, located in the Natural Heritage Building in Aylmer (Gatineau), Qc, to obtain very high-resolution photographs of some specimens preserved in the collections of the MPE, of the Royal Ontario Museum and of the Cincinnati Museum Center. This work is part of a research project under way on Ordovician eurypterids ("sea scorpions") of the St. Lawrence Lowlands. The images show very fine detail of the cuticle (or carapace) of these fossil aquatic arthropods related to chelicerates (horseshoe crabs, scorpions and spiders).

The photographs were made using an environmental scanning electron microscope (or ESEM). The electron microscope works as follows: an electron beam is aimed at the surface of a specimen with the means of an "electron gun" and most of the electrons penetrate the object, but some of them bounce off the specimen and are captured by detectors, which produce a detailed image of the scanned surface. In the case of fossils or rocks, the ESEM has certain advantages compared to conventional scanning electron microscope (SEM): one can analyze larger specimens (up to a few centimeters, given the size of the vacuum chamber that houses the object to be photographed) and it is not necessary to cover the fossil with a conductive layer (typically, gold deposited by sublimation).

The photographs obtained through the ESEM allow the observation of fine features (tubercles, scales, etc.) on the surface of the cuticle in several eurypterid specimens, which is used in comparison for identification and taxonomic classification purposes. The data collected greatly advances our understanding of the Ordovician eurypterids from Quebec as well as from elsewhere in North America. We thank Mr. Paul Hamilton, Resident Scholar at the Canadian Museum of Nature, for his kind assistance on our two visits.
M. Ch.

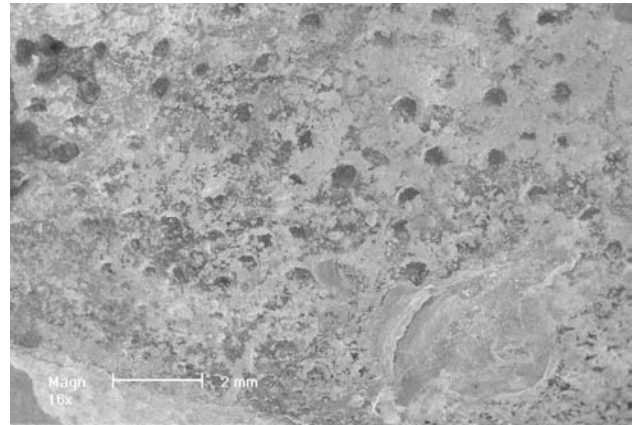


Figure 1. ESEM photograph of the surface of a cuticle fragment of a eurypterid, showing many dark-colored tubercles. Non-cataloged specimen of the MPE collections.

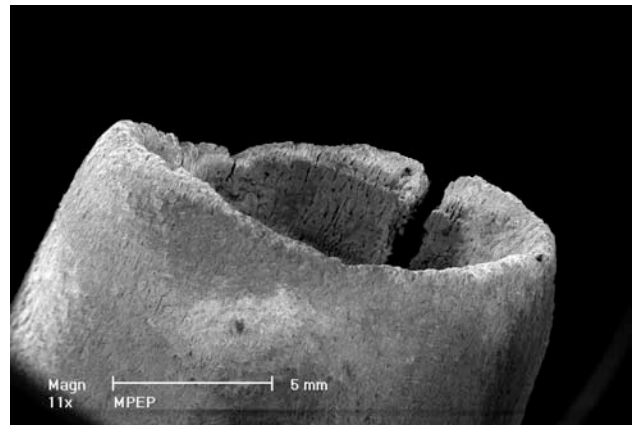


Figure 2. ESEM photograph of specimen MPEP72.4, a fragment of deer antler from the Champlain Sea sediments, Saint-Nicolas sand pit.



Figure 3. Mr. Paul Hamilton places a specimen in the vacuum chamber of the environmental scanning electron microscope.



Fiche descriptive de spécimen

Specimen number:	MPEP44.4
Identification :	Right coxal bone of Walrus
Genus and species :	<i>Odobenus rosmarus</i>
Age :	Pleistocene/Holocene boundary
Geologic formation :	Champlain Sea sands
Locality :	Saint-Nicolas sand pit, Qc
Finder :	Mr. Michel Bovo
Date :	May 10, 1997

This nearly complete right hip bone was found by Mr. Michel Bovo May 10, 1997 at a field excursion organized by the MPE in the pit of St. Nicolas, located on the south shore of Quebec. This bone is the second walrus bone found in the sediments of the Champlain Sea. A skull found in 1990 at Ste-Julienne, in the Lanaudière region, was the first known occurrence (Bouchard et al., 1993). A carbon-14 dating gave an age of 9790 ± 60 years BP (Occhietti et al., 2001). Since 1997, three other bone specimens of walrus were found in the pit: an ulna (MPEP80.1), a metatarsal (MPEP83.1) and a second hip bone (MPEP87.1). The site of Saint-Nicolas once again demonstrates its importance to the knowledge of fossil faunas of the Champlain Sea.

Bouchard, M.A., Harington, C.R. et Guilbault, J.-P. Walrus skull (*Odobenus rosmarus* L.) in late Pleistocene Champlain Sea sediments at Ste-Julienne-de-Montcalm, Quebec. *Can. J. Earth Sci.*, 30 (8): 1715-1719.

Occhietti, S., Chartier, M., Hillaire-Marcel, C., Cournoyer, M., Cumbaa, S.L., and Harington, C.R. 2001. Paléoenvironnements de la Mer de Champlain dans la région de Québec, entre 11 300 et 9 750 BP : le site de Saint-Nicolas. *Géographie physique et Quaternaire*, 55 (1): 23-46.



Membership Cards

Just as at the beginning of every year, we wish to inform you that your membership must be renewed. Attached to this newsletter, you will find a copy of the renewal of membership card. Remember, you can also make a donation; the Museum is a charitable organization duly registered with the Canada Revenue Agency (No. 890282445RR0001) and therefore authorized to issue receipts for tax purposes.

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