

Bulletin of the MPE

24 hours of science — 2016 edition

In terms of things that are repeated from year to year, we must mention the "24 Hours of Science" fossil dig that takes place on the first weekend in May at the Hanson (now called ForTerra) Brick Factory in La Prairie. Remember that this event is organized by "Science pour tous". The weather was ideal and the visitors came in droves. In fact, we had close to 100 participants, mostly people who had never taken part in our digs and even some we had never seen before. In fact, this event was the most popular for the MPE since it has been offering mainstream activities and one of the most popular for the 24 Hours of Science.



Above picture: Alexandre Guertin-Pasquier, our new co-president, explains the immensity of geological time using a simple measuring tape.
Right picture: Participants combing rocks in search of fossils.



Everything went well except Pierre Bédard's drone, which totally refused to function. But as the aim of the operation was to find fossils, not to film the members, most did not even notice the breakdown. The MPE's staff resources were greatly sought after by the participants, who were excited at the opportunity to find their own fossils. Children's enthusiasm is inexhaustible and that of their parents tends to follow suit.
J. P. G. and M. C.

New Board of Directors

At the last Annual General Meeting of members, on April 28, some changes were made to the Board. Jean-Pierre Guilbault, whose background is almost entirely scientific, indicated that he felt less at ease in his role as president during meetings where the main topics under discussion are marketing and social media: he therefore decided to stand aside for a younger person versed in these fields. In order to ensure the availability of a younger, working President, we have opted for a co-presidency: Alexandre Guertin-Pasquier, who was Vice-President, and Ha-Loan Phan, will share the role of President. It should be noted that as vice-president, it was normal, though not mandatory, for Alexandre to become president in the event of the president's departure.

In an overhaul of our general regulations (Statutes of the Museum), the Board proposed to increase the number of its members from 8 to 9 to facilitate quorum (we will still have a quorum of 5 out of a total of 9) and also to have a greater diversity of skills. Lionel Zaba, a member of the Board since 2011, did not intend to renew his mandate, which meant we had to find two new members. We "found" Charles Gagnon, formerly at the RESO (*Regroupement économique et social du Sud-Ouest*) where he was responsible for social economy projects and Yvon Savoie, a resident of the Southwest borough of Montreal who has worked on the boards of various public bodies.

Here is the composition of the new B. of D.:

Co-chairs: Alexandre Guertin-Pasquier

Ha-Loan Phan

Secretary: Sergio Mayor Pastor

Treasurer: Jacques Lachance

Director: Charles Gagnon

Director: Jean-Pierre Guilbault

Director: Vanessa Jetté

Director: José Quiroz

Director: Yvon Savoie

As Director general, Mario Cournoyer is not a member of the Board of Directors, but he attends all meetings.

J. P. G. and M. C.

Fundraiser - "An expanding laboratory"

In the Bulletin of December 8, 2015, we announced that the fundraising campaign for the expansion of the laboratory had reached \$20,872, \$1200 less than the target of \$22,000. Our director Mario Cournoyer launched a final call for help and as a result, several donors, mostly among our regular "big" supporters, made some additional donations and we reached \$24,562. As expenditures totaled \$21,212.80, we ended up with a surplus of \$3349.16. We decided to allocate this surplus to conservation, as this had been the primary goal of the campaign. For the most part, it was used to purchase new cardboard boxes, custom-made for the conservation of fossils, as well as to make drawers for cabinets. We now have at least a few years' worth of boxes in reserve.

We would like to thank the following people for their generous contributions to our "Expanding Laboratory" fundraising campaign.

\$500 or more

Francino and Michel A. Bouchard, members of the MPE;
Jean-Marc Ethier; Mario Cournoyer, Director of the MPE; Kevin Brett;
Nathalie Daoust, member of the MPE; Isabelle Ruiz, MPE member;
Jean-Pierre Guilbault, President of the MPE; François Habets;
Daniel Renaud, ForTerra brickworks (Hanson) ;
Pierre J.H. Richard, member of the MPE; Richard (Dick) Harington;

Less than \$500

Raymond Auger; Jean Barbeau; Pauline Beaudet, member of the MPE;
Isabelle Béchard; Pierre Bédard, member of the MPE;
Marguerite Blais, MNA for St-Henri-Ste-Anne; James C. Brower;
Sylvain Charland, member of the MPE; Michelle Coyne; Réal Daoust;
Michel Chartier, member of the MPE; Margareth Griffin;
Michelle Drapeau, member of the MPE; Robert Holmes;
Edeline Gagnon, member of the MPE; David Rudkin;
Alexandre Guertin-Pasquier, vice president of the MPE;
Marguerite Hayde, member of the MPE; Robert Sensenstein;
Deborah L. Hayek, member of the MPE; Michel Tomassini;
Jacques Lachance, treasurer of the MPE; Bernard Lauriol, member of
the MPE; Jacques Letendre, member of the MPE;
Marie-Louise Héroux, member of the MPE;
Richard Léveillé; Catherine Lorrain, member of the MPE;
Sergio Mayor, secretary of the MPE; Alisson Murray;
Suzie Nantel, member of the MPE; Bruno Landry, member of the MPE;
Edward Patrick, member of the MPE; David Marshall;
Luc Pelland, member of the MPE; Stéphane Perron, member of the MPE;
Ha-Loan Phan, member of the BoD of the MPE; Julie Talbot;
Gilbert Prichonnet, member of the MPE;
José Quiroz, member of the BoD of the MPE; Paul Racicot;
Lucille Sylvain, member of the MPE;
France Thiboutot, member of the MPE; François Therrien;
Elise Thierry, member of the MPE; Sylvie Pinard, member of the MPE;
Lionel Zaba, member of the BoD of the MPE

J.-P. G.

Canada summer jobs 2016

Again last summer, for the 7th consecutive year since summer 2010, we employed a student to work for the Museum. The federal government subsidized us for 7 weeks of employment (compared to 6 in the summer of 2015 and none in the summer of 2014). We supplemented the grant so that the student received \$15/hour, rather than just the minimum wage (\$10.70/hour) that the subsidy covered. Last summer, we hired Lyna Lapointe Elmrbati whom we had previously hired—at our expenses—in 2014 to do cataloging work; again, she contributed to advance the enormous task of cataloging the numerous donations of fossils received during the last few years. Lyna is a student in physical geography at the University of Montreal (palynology). She has just completed her master's degree and starts her PhD in the fall.

J.-P. G.



Left picture: Lyna Lapointe Elmrbati cataloging the last samples from the Allen Petryk collection from Anticosti Island, which fills a dozen "Archive"-type boxes and a few dozen conservation boxes, in short many fossils!

Photo below: a sample of what can be found in Dr. Petryk's collections: tabulate corals, limestone slabs covered with brachiopods, bryozoans, mollusks and sometimes complete trilobites.

Photo bottom left: Lyna also took a little time to affix numbers on fossil specimens. This step may seem trivial, but it is essential to enable the tracing of specimens.



Trainees / Interns

This year the harvest of trainees was plentiful. These are students who are supported by their school or institute to come to study or do a practical internship at the MPE. In addition to those sent to us every spring by Professor Christopher Cameron from the Department of Biology at the *Université de Montréal* (we'll talk about that later in the text), this year we had two master's students from other institutions. Karine B. Fortin, a student in the Department of Art History at UQAM, did a training course in museum conservation. In addition, she was a Master's Candidate in the Department of Anthropology at the University of Montreal, specializing in vertebrate fossils. She helped us inventory the remains of the Daveluyville whale and restore some of its bones.



Above picture: Karine B. Fortin, restoring bones belonging to the whale of Daveluyville. Right picture: Karine is documenting her work on the bones of the Daveluyville whale, which are loaned to us by the *Musée québécois de la culture populaire* in Trois-Rivières.



Left picture: left shoulder blade, damaged in the center and on the upper and medial side. Right picture: vertebra lacking neural process and left transverse process.

Trainees / Interns (cont.)

Aurélia Nguyen, a student in history and art history at the University of Paris VIII, is working on the new website, on a virtual exhibition and on various means of disseminating information (Bulletin, Facebook pages, etc.). In conclusion, we must mention Adrien Poumeyreau of the University of Bordeaux, who wanted to come and help us with our communications, digital and otherwise. Unfortunately, his university refused to finance his internship here, but it is not for lack of enthusiasm on his part. The abundance of trainee candidates, whether accepted or not, shows that the MPE is becoming known and that it is beginning to form academic relationships with universities.

Back to the students from Chris Cameron's lab (Department of Biology of the University of Montreal), their presence in the MPE seems to have become a tradition. Last year, it was Laurence Gagnon who came for an introductory research course. Her project consisted of collecting raw data for a future article on an association between brachiopod and conularid fossils (poorly known fossils, cousins of jellyfish, but with a shell). In July, we enjoyed the visit of Dr. Heyo Van Iten from the University of Indiana, who is leading Laurence on this project. An article should result, of which Laurence will be co-author.

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Photo top left: Chris Cameron (left) and Heyo Van Iten (right) discussing the microstructure of the conularid shell.

Photo on the top right: Heyo Van Iten (left) and Laurence Gagnon (right) try to recognize which of the brachiopod valves (pedicle or brachial?) they see in the photo. Headaches in sight!

Photo bottom left: an example of association between conularids and brachiopods. One can see in this picture three conularids pointing their shell towards a brachiopod. Conularids are related to jellyfish, but unlike the latter, which have only a soft body, the conularids were provided with a shell. The question has long been asked: were they planktonic, floating along the currents, or were they rather attached to the seabed? Our specimens from Ontario are among the most useful to answer this question. Specimen MPEP368.19, *Conularia trentonensis* and *Onniella* sp. (brachiopod), Upper Ordovician, Whitby Formation, Georgian Bay, Ontario.

Public Visibility for the MPE

1° A prize for the MPE!

Since becoming part of the "*Je fais Montréal*" movement, the popularity of our project has been growing rapidly. At one point last winter, a competition for the most popular project was launched by the City of Montreal, popularity being measured by the number of clicks each project received on the "*Je fais Montréal*" website. We asked you to click for us and you clicked. You clicked so much that we won the first prize: \$5,000, leading to the production of a promotional video for the MPE. Opposite: Mario Cournoyer receiving the award on behalf of the Museum. For several years now we have been talking, in the BoD, about the necessity of making such a video, but no one was moving. Now the outside world has caught up with us and we will have to move.



2° Un new website for the MPE

You may have noticed that our website has not changed much in more than a year. In fact, due to incompatibilities between, on the one hand, different versions of the software we use to make the site and, on the other hand, the Mac OSX system, it had become impossible to upload anything onto the site. Mario Cournoyer has made titanic efforts to resolve the problem: without results. So we have decided to build a new site with a more advanced and much more flexible software (WordPress). Fortunately we found a volunteer and competent programmer (Mehdi Bouhalassa) who is gradually building the new site. The launch of the simple version will be this winter, other elements, such as photo galleries will be added later. Please be patient.

3° "Fossil of the week" on our Facebook pages

If you visit the Museum's and the *Amis du Musée's* Facebook pages you will see a new series of posts entitled the "Fossil of the Week". Each week, a new cover photo is shown, illustrating a different fossil from our collection. At the same time, we publish a brief text of a hundred words or so on this fossil, one hundred in French and one hundred in English. A beautiful way to highlight the donations we regularly receive. We wish you much pleasure in following these posts. This is a new MPE production that you may wish to collect. J. P. G. and M. C.



Fossil donations

Since the last bulletin, fossil donors have been relatively quiet, but it should be noted that two of the anonymous donors who have made major donations in the past years have continued to do so, but in a more moderate way. Knowing their collections and their interests, we believe that these sources are not about to dry up. In addition, Kevin Brett, researcher and collector of Bobcaygeon, Ontario, Michel Montpetit, collector from Valleyfield and Albert Cornu, founder and former president of the MPE and former president of the Club de Minéralogie de Montréal, made donations that can only be described as important. Also, our outgoing president, Jean-Pierre Guilbault, has put three fossils from his own collection at the disposal of the Museum for possible exhibition: part of a giant eurypterid from Herkimer, in New York State, an *Olenellus*, Cambrian trilobite from Newfoundland, a giant in its own right, and finally, plant fossils from the Carboniferous of New Brunswick.

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Photo top right: A shale slab preserving a large number of Carboniferous age ferns from New Brunswick.

Photo at the bottom right: A pincer (part and counterpart) belonging to the giant eurypterid *Pterygotus*, from Herkimer (New York State). The animal can be extrapolated to have been 2.5 meters long. Quite a "scorpion"!



Descriptive card of the specimen

Specimen number: MPEP725.1
 Identification : Nearly complete individual
 Genus and species: *Olenellus* cf. *rodnyi*
 Age: Lower Cambrian
 Lithologic unit: Forteau Formation, Labrador Group
 Locality: Great Northern Peninsula of Newfoundland

Barely 50 years ago, the passage from Precambrian to Cambrian was poorly documented. Before the Cambrian, there were vague forms without shells reported only from Australia (now known as the Ediacaran Fauna). Then, all at once, fossils with shells appeared: trilobites, archaeocyathids, brachiopods, etc. The very first to appear was the trilobite illustrated here: the genus *Olenellus*. Its appearance marked the beginning of the Cambrian and therefore of the Phanerozoic Era while its disappearance indicated the end of the Lower Cambrian. The sudden appearance of such an advanced organism, with no traces of earlier forms that could have been its ancestors, was a puzzle that had frustrated generations of paleontologists since Darwin. Today, the Cambrian and the Ediacaran have been studied in much greater detail and it is known that the first shelly fossils precede *Olenellus* by about 20 million years. This is quick evolution indeed, but it is gradual. Concerning this specimen in particular, it should be known that the "average" *Olenellus* is about

2 to 3 cm in length. Look at the scale: the body of this trilobite is about 9 cm long and its caudal spine (which points to the left), 5 cm. It is therefore a giant of its kind and, according to the specialists we consulted, it is extremely rare.



Memberships

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 membership renewal form. Remember that 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 income tax purposes.

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