

Burgess Shale Collection Storage

by: Jean-Bernard Caron

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[Animated ROM logo appears with sound sting]

[Jean-Bernard Caron stands in the ROM's collections storage for invertebrate fossils]

Hello, my name is Jean-Bernard Caron. I'm the Associate Curator of Invertebrate Palaeontology at the Royal Ontario Museum. And now you are in the core of our collections. And at the core of our collections, we have hundreds of thousands of specimens. Most of them are from the famous Burgess Shale locality in British Columbia. *[Video footage of Burgess Shale location including field research and fossil collections]* We hold this collection for Parks Canada, and this collection is for research and display.

[Video returns to Jean-Bernard, who gestures towards compact storage units]

Today I'm going to show you a few examples of the specimens and how they are stored in, in our collections. First of all, I should mention, because of the sheer number of specimens, we store specimens in drawers and each drawer are on compact storage. So, we are going to go through some of these drawers and show you some examples of fossils.

[Jean-Bernard mechanically opens storage units and uses a turnstile to access a storage corridor]

So now, all these cabinets are full of fossils from the Burgess Shale. *[Jean-Bernard opens a cabinet within the storage unit and gestures towards drawers]* Each cabinet has dozens of drawers and specimens were organized by year of collection. *[Jean-Bernard opens one drawer, revealing slabs. He lifts one out of the drawer and points to several fossils]* So, for example, if I pull a drawer, you will typically find a number of slabs. And, on each slab, you have a few specimens present on the surface. *[Jean-Bernard opens another drawer and holds up an example of a slab that had been split into two, and demonstrates how they fit together]* Most specimens, when they were found in site, were split. So that's the reason why you have a part and a counterpart for the same specimen.

*[Jean-Bernard closes the cabinet, opens another, pulls out a drawer and holds an **autoya** specimen, showing how two fragments fit together]*

This is a very random process, of course. There are so many specimens. Even myself, I don't know exactly what's there. Ah, here on this slab, for example, I can recognize a number of **autoya** specimens. Those worms, those are worms that were living in the mud at the time of the Burgess Shale. This specimen in particular, will still need a bit of restoration, as you can see, it was broken in the field and will need to be glued forever.

*[Jean-Bernard opens another drawer of slabs. He picks up a small slab and points out a *Marrella* specimen]* Let's see what's in this drawer. Well, as you see, there are many slabs and it's difficult in some cases to recognize what's on the slab if you don't look at the slab under a microscope. But, with experience, you can recognize

different individuals. This one is a *Marrella* specimen. It's one of the most common arthropod from the Burgess Shale.

[He closes the drawer and cabinet and stands in the corridor addressing the camera]

And you have to realize the dimension of this collection. It's a very large collection – it's the largest in the world, and it took about 17 field seasons for the ROM to accumulate here in our collection, and this is certainly the most important collection in the world. Since most of the specimens were collected in stratigraphy, in layers, bed by bed, and this was extremely important for the study of early animal evolution. *[Video of shelving units and their cabinets with empty corridor]*

[Video ends with animated ROM logo and sound sting]