

# Construction workers find 445-million-year-old fossils

By Nathan Howes  
OAKVILLE BEAVER STAFF

An Oakville-based construction crew has unearthed a 445 million-year-old chunk of Ontario's past.

About two weeks ago, construction consultants Bala Rock were in the middle of digging a basement near Chartwell and Cornwall roads when they struck unusually hard rock formations with mysterious impressions on them.

At first, Bala Rock President Keith Lahou thought it might have been the remains of a dinosaur.

"I've been doing this for a long time and I've never seen anything like this stuff. I knew it was different," said Lahou. "I didn't want to be filling in something that might have been academically significant."

So he contacted the experts at the Royal Ontario Museum (ROM) in Toronto.

As it turns out, the fossils have been buried beneath limestone, soil and dirt for 445 million years and are from the late Ordovician period, according to Janet Waddington, assistant curator and collection manager from the Department of Natural History-Palaeobiology at the ROM.

"They were interesting. There was nothing academically important there, but they're a nice interesting glimpse into Ontario's ancient past," said Waddington. "They're a part of the bedrock underlining the Toronto area, The Georgian Bay Formation."

Waddington said the rocks are a part of the top of the bedrock and represent a gap in the geological history of Ontario where there was no fossil records between these rocks and the softer, non-liquefied sediments that were laid down by the last Ice Age.

"There's a huge gap that goes straight back to 445 million years. They show just a glimpse of what the sea floor looked like at the time because Ontario was south of the equator and that mud was on the bottom of the ocean," said Waddington.

Lahou said the rocks were found beneath a sheet of limestone they normally wouldn't expect to find in that part of Oakville.

Lahou said they came into contact with the rocks at a depth of 12 feet.

Waddington said that this type of rock is common and can be found throughout various locations around Ontario. For example, the rock outcrops in places along the Humber River,



MICHAEL IVANIN #/ OAKVILLE BEAVER

**FOSSIL FIND:** Keith Lahou, of Bala Rock, shows unearthed fossils and remains that are 445 million years old. The fossils were discovered while digging for a basement on property in the Linbrook Road and Chartwell Road area.

16-Mile Creek, Etobicoke Creek, the shore of Georgian Bay, Nottawasaga Bay and slightly older rocks can be found to the east of those locations.

"You do get rocks outcropping, but for the most part, southern Ontario is covered with a huge thickness of soft sediment clays, shales and clays and sands and dirt," she said. "There are areas in Ontario where the rock is very close to the surface and there's bare rock exposed at the surface up around Lake Simcoe areas."

There was virtually no fossil record of life ever having existed on land during the era of these rocks, Waddington said.

"At that time, southern Ontario was under water and marine. It was under a sea, rather than freshwater. There would have been algae; there would have been seaweeds, several different kinds, and there were invertebrate animals," said Waddington. "Swimming in the sea, the major predators would have been cephalopods, which were squid-like animals."

The rocks also predate the existence of all dinosaurs, almost twice as old. The oldest dinosaurs are about 225 million years, she said.

The impressions left on the rocks are the remains of soft mud that turned into rock, but that mud was laid down as sediment on a sea floor that had a rippled surface, Waddington said.

"It's just an impression of what was at the time the surface of the sea floor. Some of the ripple, undulations were probably actual ripples in

the mud caused by sediment along the sea floor," said Waddington.

She also said there are some lines and finer bumps in the smooth surface that may be trace fossils and tracks left by animals that actually lived in the mud.

"There's another layer, sort of darker, with some white kind of branching structures in it, those are actual fossils of bryozoans, which are animals that actually lived on the sea floor," said Waddington. "They were colonial creatures (that) basically make rock; they take calcium carbonate out of the water and use it to build their skeletons



SUBMITTED PHOTO

**LASTING IMPRESSION:** Fossil shows an impression of the surface of the sea floor from 445-million years ago.

or their structures."

"The rocks represent the environment at the time and the ecology, including the animals and plants and what they lived on."

Lahou plans to keep a few samples for himself and donate the rest to a silent auction this fall with proceeds going toward the ROM and other charitable organizations.

Every two months the ROM holds clinics for people with fossil remains that wish to have them identified.

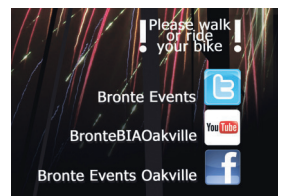
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