

Paleontology Day promises fun for the entire family

BY LINDA ANN CROMM
STAFF WRITER

Mark Uhen looks every bit the paleontologist in his dirt-covered white coat. It's hard to keep clean here in the preparation lab of Cranbrook Institute of Science in Bloomfield Hills where he and volunteers work to unearth fossils millions of years old.

Uhen and fellow paleontologists have an evolution theory they're trying to prove about members of the whale, dolphin and porpoise family. He believes cetaceans walked on hind legs at one time. Now Uhen must piece the evidence together like a puzzle. It's all part of the process of digging through rocks to retrieve fossils found as far away as Alaska and New Zealand then cleaning and rejoining the parts to reveal mysteries of the ages.

Visitors can experience a little of the adventure during a Paleontology Day Saturday, Jan. 18, at the museum. Discover what it's like to scrape and brush away dirt from a 30 million-year-old turtle encased in rock. Cranbrook Institute of Science owns a large collection of the fossils and wants visitors to experience a day in the life of a paleontologist. Along with bringing out a dolphin's skull, teeth, ear bone, and a multitude of fossils scattered on tables in the lab, Uhen will talk and answer questions about researching life in former geologic periods.

Originally from Wisconsin, Uhen earned graduate degrees, including a Ph.D., from the University of Michigan in Ann Arbor. In addition to his position as curator of paleontology and zoology at Cranbrook, Uhen is an adjunct research scientist at the University of Michigan Museum of Paleontology and a research associate at the United States National Museum of Natural History (Smithsonian Institution).

RESEARCHING

"As a paleontologist I go to

PALEONTOLOGY DAY

What: Learn what it's like to be a paleontologist, watch as actual whale and turtle fossils are removed from rock, create casts of whale teeth to take home and study, scrape away dirt and clean authentic turtle fossils approximately 30-million years old

Where: 1-4 p.m. Saturday, Jan. 18

Where: Cranbrook Institute of Science, 39221 Woodward, Bloomfield Hills

Admission: \$7, \$5 seniors (age 65 and up) and children ages 2-12, children under age 2 and members free.

Call (877) GO-CRANbrook (462-7262) or visit the Web site at www.cranbrook.edu.

For information on becoming a member of Cranbrook Institute of Science, call (248) 645-3245

other museums to do research," said Uhen, head of science at the Cranbrook Institute.

"Museums are always collecting fossils. There's lots collected that haven't been worked on. Right now I'm doing research at the Smithsonian on fossil dolphin skulls, scanning them to see how big their brains are. Today's dolphins are very big-brained and clever but first you have to prepare them then put them through a CT scanner like they have in hospitals. To take one fossil out of the rock can take months or years. It's a long time coming something. The hardest part of paleontology is preparation. It takes a long time to get even one fossil to the point to study for 20 minutes then we measure the fossils and take pictures of them.

'I love it more than anything. I learn something every time I walk through the door. Mark's a wealth of knowledge.'

Anita Schwartz
Cranbrook volunteer

We try to study what they were like as living animals and we make copies of fossils to distribute to other museums.

"Visitors will be able to work on fossils, and clean them off. They'll get their hands dirty. We'll bring out interesting whale fossils, hind legs and hip bones, and plaster jackets from plaster and burlap and people can work on them, using brushes and picks. We've got lots of turtles 30 million years old so we don't mind them handling them so much. They can get a feel for what a paleontologist does and they'll be able to take home copies of fossil whale teeth. We've made casts before and people love it."

Cetaceans are obviously Uhen's first love when it comes to research. Visitors will learn a wealth of information from him on Paleontology Day. But first he travels to the Smithsonian to use CT scanners to study the size of the brain cavity inside of a dolphin's skull.

BRAIN COMPARISONS

"Besides humans, blue whales have the biggest brain, but relative to body size it's human then dolphins," said Uhen, an Ann Arbor resident. "We want to know where did they get these big brains. Whales are too big to go through the scanner which is only 26 inches wide so we're doing dolphins."

"There have been major transitions. Mammals evolved over time to live in the oceans. The closest relatives of whales are cows, pigs, hippos, giraffe, even toothed animals called Arctodactyls. Until about 10-15 years ago, we didn't have fossils

to back paleontologists theories that they had hind limbs then they began to find early whales in Pakistan and India. In fall 2001, there were significant finds of four-footed animals walking around on land with gills and fins."

The thrill of discovery is what's kept Anita Schwartz volunteering at the lab for 20 years. The Commerce Township resident spent the last couple of months gluing together two halves of a turtle shell for the Treasures of the Institute Collection opening Feb. 8. It is the first special exhibit at the museum in 25 years.

"I love it more than anything," said Schwartz. "I learn something every time I walk through the door. Mark's a wealth of knowledge. It's a wonderful opportunity to uncover fossils from 37 million years ago. I'd pay to do it and have. I've worked in the field before. Cranbrook took a group to Montana about eight years ago. I like being up to my elbows in casting material with no running water. Every new project is an adventure. My most memorable experience was working on a cranium for a Triceratops. That was three years worth of work."

Nancy Mathura understands Schwartz's enthusiasm for paleontology. The Waterford resident began volunteering in the lab every Wednesday nearly five years ago.

"I always brought my children here to the museum and I have loved it," said Mathura. "I called and asked can I help with the fossils. I like taking the sediments off with an air hammer, dental tools, brushes. I go regularly to the White River in Nebraska to dig with a group on a private ranch. I'm excited about being here on Paleontology Day. I'd like to be able to do this before the public so they can see what we do."

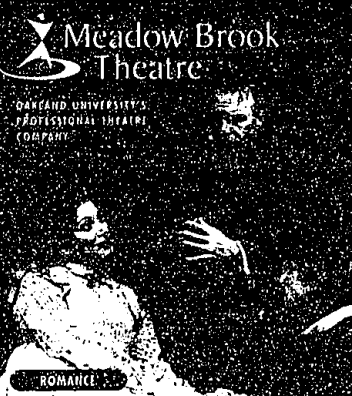
Uhen hopes the day whets the appetite of visitors enough to take the Institute's "Paleontology for Beginners" classes starting Feb. 3. He's now in the process of training

Oakland University graduate students to teach the classes. In the meantime, for more information on paleontology, visit the educational Web pages

Uhen creates for the Society of Vertebrate Paleontology at www.vertpaleo.org.

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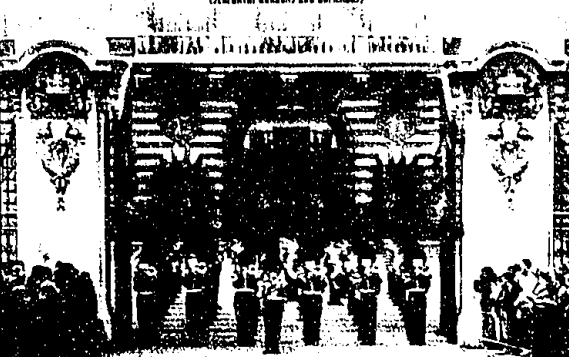
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