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Raven Hill Discovery Center, incorporated in 1991,
is a 501(c)(3) tax-exempt corporation.

Open year-round on weekends – noon to 4pm Saturdays and 2pm to 4pm Sundays.
Between Memorial Day and Labor Day, hours expand to include weekdays from
10am to 4pm. The Center is also open other times, including holidays, by appointment.

MISSION: to provide a place that enhances hands-on and lifelong
learning for all ages by connecting science, history and the arts.

WHERE **SCIENCE****HISTORY****AND****ART** CONNECT

To: Raven Hill friends

From: Cheri

Date: September 7, 2024

Re: Mammoth & Mastodon

Imagine climbing over a ridge in open grassland and spotting a mammoth grazing peacefully in the distance, its massive form towering over the landscape. Now picture yourself, stepping into a dense wooded area, where a mastodon is ripping small branches and leaves from trees to eat. Both of these elephant relatives roamed here in Michigan during the Ice Age, becoming extinct about 11,000 years ago.

Mammoths are more closely related to modern elephants than mastodons. Mammoths and modern elephants evolved originally in Africa. They have similar body structures, including a long curved trunk and large tusks. They also share similar teeth, reflecting the fact that they come from similar environments. Here in Michigan, mammoths were suited to the colder grassy plains of Ice Age Michigan, where they primarily grazed on grasses and other low lying vegetation. To break down fibrous plants, elephant and mammoth teeth are long, narrow and flat with parallel ridges made of enamel plates, for grinding.



A portion of a fossilized mammoth tooth.
--Permanent loan from Roy Wynkoop



Replica mammoth molar
--Raven Hill Collection

On the other hand, mastodons evolved in North America. They belong to a different family which diverged from the ancestors of elephants and mammoths much earlier, around 20 to 25 million years ago. Mastodons have stockier bodies, shorter legs and straighter tusks compared to the mammoths. They preferred more of a forest environment, feeding on trees, shrubs, and woody plants. Mastodons are browsers, so they have teeth that are smaller and sturdier with a few high cone-shaped cusps, ideal for crushing tough vegetation in forest areas. The vast tracts of forest in Michigan may account for the fact that there are more mastodon fossils found in Michigan than mammoth remains.



*Replica mastodon tooth.
--Raven Hill Collection*

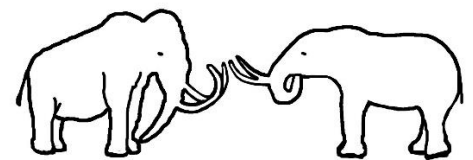


*Fossilized mastodon tooth.
--Raven Hill Collection*

At Raven Hill Discovery Center, you can have the incredible opportunity to get up close and personal with fossilized mammoth and mastodon teeth! Visitors can even touch these ancient relics under supervision—just ask! Plus, don't miss the chance to explore our "Exploring Beyond Jurassic Park" exhibit, where lifelike replicas of these fascinating teeth bring the Ice Age to life!

One day, if dreams come true, you might even get the chance to see life-size, wire sculptures of mammoths and mastodons here at Raven Hill, clearly displaying the differences in their size, stance, and tusks!

Fall hours are now in effect. During bridge construction—September and October or until the road re-opens—the **Pop-up Museum** and outdoor exhibits will be open regular weekend hours—noon to 4pm on Saturdays and 2pm to 4pm on Sundays. Visitors can make an appointment to visit the Main Museum at other times, including holidays. Email info@miravenhill.org or call 231.536.3369 to make your reservations. Hope to see you here soon to visit the **Pop-up Museum**, AKA the **IGLOOS** and explore the items within! Or just stop and check us out as you drive by!



*(Left to right) Mammoth and mastodon
--Drawings by Sally Brayton*

P.S. During bridge construction, please pay your \$5 (half price) admission at the **Pop-up Museum** before driving the detour to explore the outdoor exhibits on the Main Campus. If everything remains on schedule, the road will reopen on Friday, November 1st. Cross your fingers!

Cheri