



04737 Fuller Rd | East Jordan, MI 49727
231-536-3369 | info@miravenhill.org | MiRavenHill.org

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

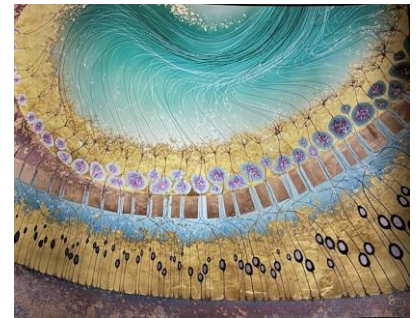
From: Cheri

Date: October 19, 2024

Re: *Connect and engage your senses*

I was so excited this week to get a special package in the mail. Greg Dunn produces beautiful “neuro art” images. I ordered one of his newest prints as much for myself as for Raven Hill. The olfactory system is “...one of the prettiest, most interesting, and downright coolest structures in the brain. It’s sophisticated construction consists of only around 400 different types of olfactory receptors that can combine their graded signals to allow us to discriminate millions, or even billions, of distinct odors...These direct connections into emotional and mnemonic centers gives our sense of smell particularly deep access into our subconscious and is the reason why you would still instantly recognize the exact odor of your grandmother....”

Olfactory System



Greg Dunn neuro art--up close and personal. Who knew our olfactory system was so beautiful?!

See and Touch



Visitors can see and touch replicas and real fossils as they walk along the Exploring Beyond Jurassic Park pathway.

See and Hear



See the fall colors and hear the bell at the Schoolhouse!

Dunn’s image of the olfactory system led me to this week’s update. Think about how important our senses are and how much we use and depend on them here at Raven Hill or wherever we happen to be. Connecting the five senses with Raven Hill Discovery Center’s

mission to link science, history, and art through hands-on learning is a powerful way to immerse visitors in the “Raven Hill” experience.

Sensory experiences reinforce the immersive, hands-on learning at Raven Hill, making abstract concepts in science, history, and art more tangible and engaging for people of all ages. Fall especially encourages us to use all of our senses. We see the leaves turning beautiful colors over the courses of a few weeks or days. We hear the rustle of the dried leaves as we walk. We touch the leaves and feel the raised veins running through the blade of the leaf. We may smell the smoke of burning leaves or taste a fresh apple straight from the tree.

These multi-sensory experiences aren't just relegated to autumn. Spring and summer are filled with field trips and classes that bring entirely different sensory experiences to participants. During the summer, picking berries, making butter, and baking biscuits for shortcake is a set of activities rich in sensory engagement, blending nature and tradition in a hands-on experience for children.

Touch, Smell and Taste



The tradition of making butter and biscuits, PLUS eating them began in 1992 as part of East Jordan eighth grade study of the French Indian War Period.

The visual experience starts as children spot ripe blackberries differentiating them by color from those that are unripe. They physically turn the wheel on the grinder and see the wheat berries turn to a powder—flour. Later they see the changes taking place as the flour, baking powder, butter and milk are mixed into a dough and shaped into biscuits.

Making shortcake is highly tactile for children who love to touch everything. When picking berries, they feel the delicate fruits between their fingers. They are totally involved in shaking the jar of cream to make the butter, while mixing and shaping the biscuit dough offers a different texture—soft yet firm. These activities connect directly with the ingredients, grounding kids' learning and retention process.

There are subtle but significant sounds at each step of the process. Kids hear the rustling of leaves as they push their way in to pick the berries. They listen for the sound of the sloshing cream to stop as the cream begins to change to butter and finally, they can hear a different sound as the butter finally forms a solid ball in the thin buttermilk left over. They hear the oven door open and watch & listen as the cookie sheet holding their biscuits slides into the oven to bake.

This is where the experience becomes deeply reminiscent of the past. The earthy smell of freshly picked berries, the rich scent of cream, and, of course, the irresistible aroma of the biscuits baking in the oven fill the air, connecting you to both nature and the kitchen with sensory smells that bring back memories.

Finally, tasting brings everything together. The individual berries are sampled as they are picked. The butter is tasted before and after salt is added, so kids can taste the difference between unsalted (sweet) and salted butter. The sweetness of the berries, the creamy richness of fresh butter, and the warm, flaky texture of the biscuits create a sensory finale. Taste transforms the process into something deeply personal, connecting history, culture, and nature to the present moment.

By engaging all five senses, picking berries, making butter, and baking biscuits become more than a task—they turn into a full-body experience that taps into science (through physical and chemical changes), history (through traditional methods), and art (through creative cooking). It's a perfect example of how simple, hands-on activities can engage us in a deeper connection with the world AND stimulate all our senses.

Even rocks stimulate the senses. We look for the patterns of Petoskey stones or Charlevoix stones, fossilized remnants of the shallow sea that once covered Michigan. We feel the texture of those coral skeletons preserved in the smooth mud of the background. As we search the ground, looking for those stones, we hear our footsteps on the roadway. We smell the oil that is released as we polish those fossils and we enjoy some rock candy as we work.

Touch and Smell



When you polish a Petoskey stone you break open little pockets of oil, which smells like—YUP, you guessed it, you can smell OIL.

As you explore here at Raven Hill, there are multiple opportunities to use your senses. You may not use all your senses everywhere you go, but your senses of sight and touch will be well used. Picking and eating wild blackberries as you walk to the Treehouse is a special treat and a use of your sense of smell and taste. The Earth Tones Music Garden stimulates your senses of sound as you play instruments created from wood, metal and stone. Next time you visit the Center, be conscious of all your senses and how often you put them to use as you immerse yourself into the experience that we call Raven Hill.

Under Michigan & Beyond

EXPLORE WITH ALL 5 SENSES

SIGHT
Captivating displays

SOUND
Granite lithophone

TASTE
Chocolate river rocks

TOUCH
Touchable artifacts

SMELL
Polishing fossils

*Raven Hill's current exhibit, **Under Michigan & Beyond** gives visitors a chance to use all their senses to explore rocks, minerals and fossils. This special exhibit will remain open through the end of 2025.*

Touch and Hear



Jam sessions are common and often quite loud in Raven Hill's hands-on Discovery Room!

“To perceive the world through our senses is to be fully alive; to engage them is to unlock the depth of experience that surrounds us every moment.” – Unknown

This quote aligns perfectly with Raven Hill's hands-on learning approach. It emphasizes the richness that comes from using our senses to connect with the world around us.

The Main Museum is now open regular **fall/winter hours—12pm to 4pm on Saturdays and 2pm to 4pm on Sundays, plus other times by appointment.** Due to the bridge construction on Fuller Road, access is **via the detour—C-48 to Bergman to Rogers to south Fuller Road.** Plan a visit soon and use your senses to explore the exhibits in the Main Museum and all the outdoor exhibits on

the Main Campus, Connections Trail and in the Ancient World. Raven Hill staff is also available for onsite classes, as well as educational outreach programs that come directly to schools and libraries. Call Cheri at 231.536.3369 or email info@miravenhill.org with questions, for more information or to book a day and time for a family visit, class, field trip or outreach program.

Cheri