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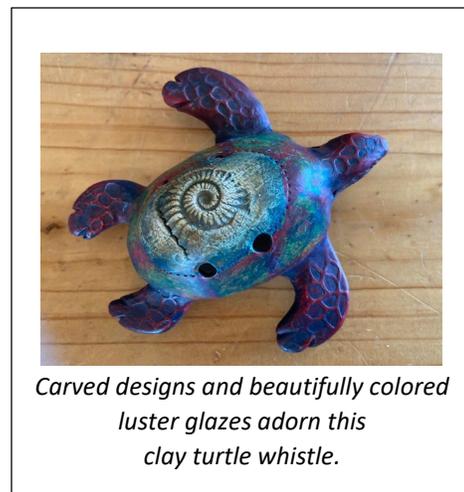
Raven Hill Discovery Center, incorporated in 1991, is a 501(c)(3) tax-exempt corporation.

Mission: Raven Hill provides a place that enhances hands-on and lifelong learning for all ages by connecting science, history & the arts.

To: Friends and Family everywhere
From: Cheri and Raven Hill
Date: March 12, 2022
Re: Whistle while you work! —

Greetings, Everyone!

It is fascinating, when you can make connections that you never thought about before! This week, as I walked through the Great Room where the Smithsonian **Labor Days History of Work** is on display, a couple of clay whistles in a display case caught my eye. From there, my mind jumped to the “work” song, “Whistle While You Work”. The song was written for Walt Disney’s 1937 movie, **Snow White and the Seven Dwarfs**. In the film, the animals help Snow White clean as the song plays. Squirrel tails are used as dusters. Wet clothes are carried on antlers and the shell of Toby, the turtle, is used as a drying rack. Our turtle is named Sheldon **and** he doesn’t function as a drying rack, but connections exist. Raven Hill invites visitors to enjoy connecting work, turtles and whistles, including the many whistle “cousins”, that are found at the Center.



Carved designs and beautifully colored luster glazes adorn this clay turtle whistle.

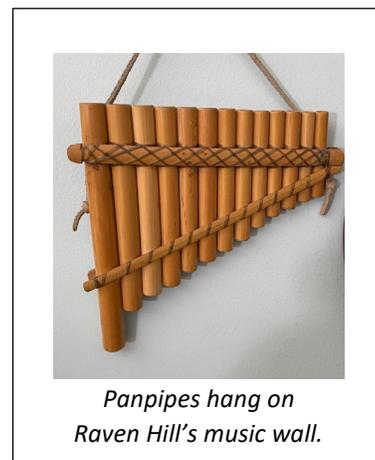
Whistles are a type of aerophone, along with panpipes, recorders, seashell horns, bosun whistles and slap tubes, all of which can be found at Raven Hill. These are all instruments that produce sound by making air vibrate without strings or membranes. A whistle makes sound from forced air. Whistle instruments date back almost as far as man

himself to the Stone Age. Primitive cultures developed the first whistles from bamboo, bone, shell, wood and fired clay. Today, we also use metal and plastic. Some people have even figured out how to make a carrot into a whistle. Check this fun video out: https://youtu.be/ro8xEvYLR_Q

The ancient Greeks played panpipes. In Europe, they were a traditional shepherd's instrument. The panpipe was also common in Melanesia in the southwestern Pacific Ocean and in South America. Panpipes consist of a set of tubes that are bound together, with each tube playing a different note as the musician blows air over the holes. The length of the tubes determines the musical pitch.



This fired clay and burnished bird whistle is elegant in its simplicity.



Panpipes hang on Raven Hill’s music wall.



Participants enjoyed creating their own Native American flutes at a past Raven Hill summer workshop.

Both recorders & flutes are aerophone instruments that have a long tradition. The first recorders were made of hollow bone. The recorder is held vertically, in front of the player, while the transverse flute is held asymmetrically from mouth to right shoulder. Native Americans play an end-blown flute, holding it like a recorder.

Seashell horns or shell trumpets are aerophones made from sea snails. The conch shell is the most familiar to people. Shell trumpets were often blown to sound a warning. Their natural cone shape is used to produce the sound. Shell trumpets have been played in Pacific Island countries, South America and Southern Asia.



This beautiful seashell horn is on display in the Evolving Technology building illustrating a unique form of communication.



A bosun's whistle allows communication on ships.

A boatswain's call or bosun's whistle is a whistle used on naval ships by a boatswain, the ship's officer in charge of the crew. This aerophone has a narrow tube which directs air over a metal sphere with a hole in the top. Boatswain pipes are used aboard naval vessels to alert members of the crew, issue commands and salute dignitaries.

Slap tubes are found in several non-western cultures, especially in regions where bamboo is plentiful, because bamboo is a perfect tube material. These aerophones are referred to as "plosives" and have become popular, thanks to performances of musical groups such as Blue Man Group from New York. Slap Tubes consist of a number of lengths of tubing, open at both ends or closed off at one. When someone strikes the open end of the tube, the hit creates a vibration in the tube that can be easily heard. You can create a musical scale using various tube lengths. The longer the tube, the lower the note it produces. The larger the tube, the louder the sound! The slap tubes in Raven Hill's Earth Tones Music Garden are tuned to play a series of notes using different lengths of PVC pipes. One end gets "slapped" with a flip-flop to create the sound.



Visitors enjoy playing music on the slap tubes in the outdoor music garden.



A pea whistle has a chamber containing a small ball (pea) that moves around in the chamber, changing the airflow to create the classic warbling/shrieking whistle sound.

There are many kinds of whistles, all of which produce sound from a stream of gas, most commonly air. Some are temporary, such as blowing on the edge of a leaf, a technique that I never mastered. Blowing over the edge of a jug or bottle can create a nearly pure tone of low frequency. Whistling telephone wires are an example of aerophone that is particularly irritating to some people, like me! Some whistles are small and powered by the air stream coming from a mouth. Others, such as church pipe organs, are driven by air pressure, steam, or other means.

Whistles can be musical, but can also produce a loud sound that carries over a great distance. That makes them useful for signaling. The boatswain's call or bosun's whistle is used on ships. A dog whistle is used to train a dog. Industrial

plants may use a steam whistle to signal shift changes or as alarms in case of emergencies. The old steam locomotives had train whistles for warning and signaling. A small hole is found on a whistling tea kettle and lets you know, when your water is boiling. A human voice is also an aerophone. Human whistling, without any instrument, can be used as a form of communication over distances too great for clear speech.

If you know someone, who would like to receive weekly updates, I would love to add their names to the list. Just send their email addresses to info@miravenhill.org. Previous updates are all available on our website, which is www.MiRavenHill.org.

Currently, Raven Hill is open to the public noon to 4pm on Saturdays and 2pm to 4pm on Sundays, plus any other time by appointment. You can call 231.536.3369 or email info@miravenhill.org for reservations. Be sure to schedule field trips, birthday parties or scout groups soon.

Note: With the lifting of local mask mandates, visitors can choose to mask or not indoors at Raven Hill. The Center's masking policy may be reinstated, if there is another spike in coronavirus cases.

We look forward to seeing you soon!

Cheri



Fired clay whistles are fun and easy to make! They come in many shapes. From left to right: chicken, owl and mouse.

Save these dates!

For more information or to register, call 231.536.3359 or email info@miravenhill.org

- **Open now until the end of 2022** | The Smithsonian **Labor Days: History of Work** exhibit remains on display during regular hours or by appointment.
- **June 23-24** | Luke Buck's Watercolor Workshop is open to beginners, intermediate and advanced students. This year's topic is "Rowboats". Limited to 10 students.
- **June to August** | Discovery Camp is a go! Campers will experience science, history, art, STEM and nature activities each week.
- **August (date to be determined)** | Great Lakes Chamber Orchestra concert at Raven Hill in conjunction with the Smithsonian **Labor Days: History of Work** exhibit.



Our Sheldon doesn't whistle, but he sure does enjoy his fruits and veggies.



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