
THE LAKE AGASSIZ ROCK HOUND

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Chimps create 'rock music' by throwing stones at trees

by line; Eva Frederick

Find original article at:

<https://www.sciencemag.org/news/2019/12/chimps-create-rock-music-throwing-stones-trees>

In forests across West Africa, scientists have caught some grown male chimpanzees engaging in a strange behavior. As seen in online videos, they pick up a rock, hoot, throw the stone at a tree, and run away. At popular trees, small piles of rocks build up. The reason is still a mystery, but a new study reveals a clue: The chimps seem to prefer to throw rocks at trees that create a richer, longer lasting sound when struck. This suggests the chimps are chucking the stones either as a method of communication—or simply because they like the sound. Ammie Kalan, a primatologist at the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, and co-authors were the first to report the behavior in 2016. For the past few years, Kalan has been trying to figure out why the chimps do it.

She knew that some of the animals “drum” on the buttresses of trees to communicate their whereabouts to members of their group in other parts of the forest. If the rock-throwing had a similar purpose, the chimps might choose trees that sounded the loudest when hit. Kalan contacted groups of researchers in France who study sound perception and acoustics, and together they designed an experiment to test the differences in the timbre of different timber. It involved Kalan herself chucking rocks at 13 kinds of trees and recording the resulting thuds. “It was quite fun, I have to say,” she says. With the recordings, researchers analyzed how percussive the noise was, how bright or muted it sounded, and how long it resonated. The results: chimps’ favorite trees to throw rocks at had a lower, ringing sound, such as the *Treculia* tree, the researchers report today in *Biology Letters*. It didn’t matter much what the trees looked like, although those with tall, raised “buttress” roots tended to be the most popular. [Consider our own use of wood in marimbas or drums.]

So far, researchers have only observed the throwing behavior in four groups of chimps in Guinea-Bissau, Guinea, Liberia, and Ivory Coast. The fact that not all chimps do it—even when plenty of nice-sounding trees are available—is “intriguing,” says Andrew Whiten, a zoologist at the University of St. Andrews in the United Kingdom, who was not involved in the study. “This suggests the behavior is a local cultural tradition.”



Photo'd male chimp in Republic of Guinea



During the experiment, Kalan never caught a chimp choosing a *new* tree to throw stones at—instead they kept banging away at those that already had piles of rocks at their base. In the future, she hopes to find out how the chimps pick out their favorites in the first place. Maybe, she says, the trees locations have something to do with nearby resources like food and water, and the sound is a signal to others of where to find them.



Kalan says the behavior could also be a dominance display. The main throwers are usually adult males who've been seen using noisy items before say at Gombe, even cast-off jugs or cans, as racket makers.

There's also the chance the chimps just do it for fun, although Kalan thinks this is unlikely. “Play behavior is a little more impromptu,” she says. (A chimp trick is grabbing each other's feet so they fall over, she notes.) Still, Kalan can't rule out this idea completely—nor the idea that the stone-throwing behavior is just the chimps' very own version of rock music.

Please Come to the LARC

January 2020 Meeting

Wednesday Jan 8 7:00 pm

Stevens Hall Room 134, NDSU

Program:

Rock Bands Session

Banded Rocks! Bring out your dazzlers

Guests are always welcome!

Lake Agassiz Rock Club

President: Frank Svezia
Vice President: Nina Flippance
Treasurer: Terry Mallick
Secretary: Chris Patenaude
Youth Group/Pebble Pups: Nina Flippance
Program planning ideas/volunteers welcome

What is our Purpose?

To create an interest and promote a knowledge of all phases of geology or earth sciences in an informal setting.

Where and When Do We Meet?

The Geology Lab, Room 136, lower level of Stevens Hall, NDSU, Fargo. Time: 7:00 p.m. This placement may change soon as we are seeking a larger space for our members. Directions meanwhile:

[From N. University Dr. turn West on 12th Ave N. Turn North on Bolley Dr. Drive just past Centennial Boulevard. See **Stevens Hall** on west side of Bolley, 2nd hall from the corner. To park, go into next driveway ahead, on the left. Drive west, then left again behind a lab building to Stevens Hall back-lot. Enter E. door or call a member to hold N. door.

How Much Are the Dues?

Single person—\$20.00; Family—\$30.00; College (any school) students and youth (if not a family member)—\$10.00 per year. Send dues to Terry Mallick, Treasurer; 416 3rd Avenue S., Moorhead, MN 56560. Or contact him during regular meetings.

What Happens at Meetings?

Our youth group The Pebble Pups attend their own separate group meeting, while the adults cover business. The kids join us for the main Program; a silent auction of collectable minerals; and "lunch".

What are some of our Club Activities?

Field trips are taken to areas ND, SD, and MN. We fundraise at the R.R.V. Fair. LARC sponsors a scholarship to an outstanding Geology student at NDSU each year. Personal Info lessons can be arranged for pre-meeting times. Lots of Show & Tell at meeting nights!

What are Our Club Affiliations?

We are affiliated with the American Federation of Mineralogical Societies. (AFMS) We are in the subsector Midwest Federation of the Mineralogical and Geological Societies. (MWF)

How Do We Keep in Touch?

Website: > <http://www.lakeagassizrocks.com/> <
Facebook: > lakeagassizrocks.com/about.php <
The Lake Agassiz Rock Hound is our monthly bulletin e-mailed 7 days before meetings. Paper copy free to active members **without** computer access. \$15 dollar subscription/ yr. for hardcopy to members who want one in addition to their e-addy. **Send news tips and articles** to the editor: Chris Patenaude P.O.Box 434, Perley, MN 56574 or email LakeAgzRC70@yahoo.com. Rock Hound articles may be reprinted if full credit is given, unless otherwise noted.

LARC is an all-inclusive, diverse group. We welcome and respect every person in regard to age, gender, heritage, language, social class or disability. Discrimination or ill will towards another will not be tolerated. We are here to support any and all who love the hobby.

BRADS' BENCH TIPS

MAKING FILIGREE WIRE

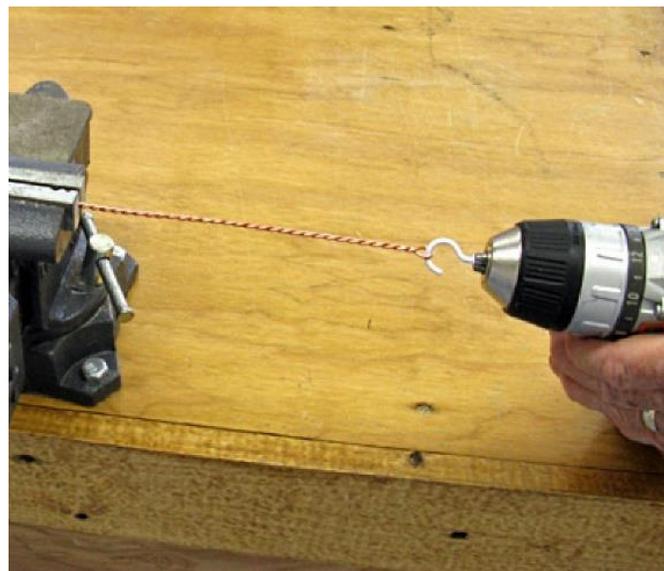
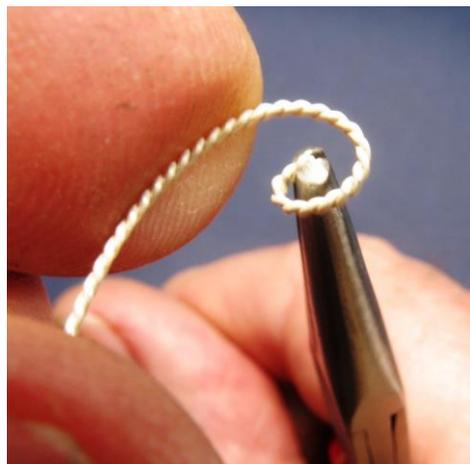
Making wire for filigree is quite simple. Take a double strand of 24-26 gauge silver wire, twist it tightly, and then flatten it a bit. While the basics are straightforward, here's a few tips that will quickly make you an expert with filigree.

Filigree looks best when the wire has a very tight twist. The way I do this is to start with dead soft wire and twist it until it breaks. It always seems to break on one end or the other.

I like to use a screw gun, although a Foredom also works well. You'll need a small hook in the spindle, either a cup hook from the hardware store or a nail that has been bent into the shape.

Be sure to keep a little tension on the wires as you twist. Then to get a real tight twist, I anneal the wire and twist it a second time until it breaks.

The final step in prepping the filigree wire is to flatten it slightly with a planishing hammer or rolling mill. The amount of flattening is a personal preference. I like to reduce the diameter about 25%. The wire will be quite stiff at this point, so it's best to anneal it again before starting to make the filigree shapes.



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NDSU Junior Class Scholarship
Winner announced
She sends a nice Thank You card

THANK YOU

Lake Agassiz Rock Club Members,

Thank you for awarding me your scholarship. I really appreciate your support of my education! I have really enjoyed my time as a geoscience major here at NDSU, and I look forward to my last two years here!

Thanks again,
Emily Nelson

MWF January 2020 Calendar

Found at: <http://www.amfed.org/mwf/Calendar/January.html>

January is a cold and lean month in the northern Midwest to be hounding or holding Shows in general. Weather happenstance could pose a definite risk to attendance! Yet we have some brave contenders holding a showing on the borderline region of chance. On **January 25** there are these advantageous folks betting on lack of competition, eh!

LINCOLN, NE: Lincoln Gem & Mineral Club Rock Swap.
1 - 5 pm. Bethany Park Shelter House, Corner of Cotner & Vine Streets, Lincoln.
Contact: Carolyn Ashmore, (402) 325-8878
Best of showings, y'all.

Here's a Heads Up for March 2020!
**California Federation Mineral Societies & AFMS
Show and Convention**
Ventura County Fairgrounds, Ventura, CA
March 07-08, 2020

CFMS/ AFMS Gem Show & Convention provides the attendees with an opportunity to find wholesale and retail fashion accessories, gift merchandise, lapidary, beads, antique & estate beads, gemstone, glass, crystal, Bali beads, metal beads, tools, jewelry, buttons, lampwork, seed beads, pearls, and more.

See more at: <https://10times.com/gem-show-convention>

LAKE AGASSIZ ROCK CLUB
HOLIDAY PARTY
DOOR-PRIZE WINNERS!
Mineral specimens donated by
Crystal Rock Healing, 4950 – 13th Ave. S. Fgo, ND



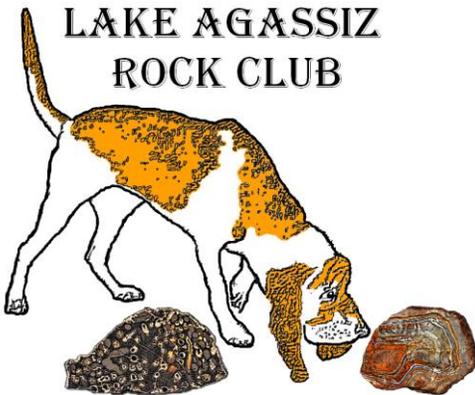
Joe Zelesnik was the happy draw for the fabulous Tri-colored Calcite chunk.

Our Jessie Rock's daughter Hazel Rock Armstrong Pulled the winning ticket for the spectacular Rose Quartz.



Rock Hounds
gneiss
tuff
and a little bit
Wacke.

Lake Agassiz Rock Hound
 P.O. Box 434
 Perley, MN 56574



Different Walks for Different Rocks

Our intriguing planet is created from bedrock-to-stratosphere of differences, occurring side by side, together, in cohesive layers. There are as many ways for brotherhood bands to form as there are elements on the Periodic Table. We are finding more every era, as we study, walk and travel. Here are a few examples of differences coming together to form long lasting structures you can expect to be millions of years old.



A "striped" variety of Rhyolite
Rhyolite: granite cousin, igneous, made of lighter silicates like feldspar, quartz, and micas. Granite cools slowly in chunky crystals; Rhyolite's minerals precipitate & form while stretching as lava. It can form in glassy bands or isolated mineral-spots ("porphyries").



Banded Ironstone
Ironstone is a sedimentary rock, either deposited directly as a ferruginous sediment or created by chemical replacement which contains a substantial proportion of an iron compound from which iron is smelted commercially.

Schist and Gneiss
 Schist and Gneiss are different types yet look a lot alike. Both are metamorphic rock that has formed from deep, pressurized heating and cooling of pre-existing rock types. Schist contains flat, sheet like *grains* in a pattern.

Gneiss is formed by whole *layers* of sheet-like planes. In both types, these layers often alternate in light & dark patterns. Schist weathers out in flakes, goes crumbly. Gneiss is more likely to break off in cleavage plates.



Lake Superior Agates
 (left) not named for the lake, but for the L.S. georift & magma deposit that gives the LS agates and 'Iron Range' w/ deep reds. Smoother 'forting' lines.
Fairburn Agates (right)



found in SW S.D. too far west for Lakers, smooth exterior; melted, cracked look w/"thumb-print" dents; holly-shaped "forted" pattern; lighter reds/tans/greens