# TC ROCKHOUNDS

**June 2026 issue**

The next regular meeting will be on Thursday, June 18, 2026, at 6:30 p.m. at the VFW Post at 3400 Veterans Drive in Traverse City. The program will be the annual silent auction. See details below.

## May Highlights

**T**he program was: “Earth’s Geological Time Scale” by Jim Thompson. There were a record 27 Pebble Pups at their meeting. Thank you to Steven Veatch, Michelle Peters and others that have helped to make this program such a great success!

## Food Pantry Donations

Linda Keely oversees the food pantry supplies collection and Donna Kukla, the clothing donations. The successful program will continue at every meeting. Non-perishable food items, ***(Please no expired dates on food items, they can’t be used by food banks),*** personal hygiene products, children’s new underwear, for elementary to teens, toothbrushes and toothpaste.

## Facebook Page

Visit the club’s Facebook page at this web address. There is also a link on our club website. https://www.facebook.com/TCRockhounds

## Upcoming Field Trips

June 27 – Norwood Township Park (Antrim County), collecting and cookout picnic.

July 18 – Michigan Geological Repository for Research and Education – Kalamazoo
July 19 – Behind the scenes tour of the Bonsai collection at Frederick Meijer Gardens in Grand Rapids

Please forward ideas for field trips to Dave Regalbuto at:

Dave Regalbuto
GTARMC Field Trip Coordinator
517-256-4716
E-mail: dregs9727@yahoo.com

## June 18 Silent Auction

At our regular meeting on June 18, we will feature the annual silent auction. Members are asked to bring one or more items to donate to the club for use in the auction. Items can be rock, jewelry, lapidary related or other interesting or tasty items like baked goods. We will most likely have two rounds of bidding which consist of approximately 15 to 20 minutes of looking and bidding on the items. When the rounds are done, you will take your successful bid sheets to the treasurer with your cash or check. This is always a fun event. The money raised is used for various club needs.

## Class Opportunity

### Upcoming Classes: Wire Weaving Basics

We're excited to welcome Alinka Lipchinsky, who will be teaching two hands-on wire wrapping classes on August 8 and 9 at the New Approaches Center in Traverse City. Whether you're new to wire weaving or looking to refine your skills, these classes offer a wonderful opportunity to create beautiful, wearable art.

**Saturday, August 8, 12:30 – 4:30 PM – Three-Wire Bracelet**
**Cost: $45**
This class explores a variety of simple wire weaving patterns used to create a custom three-wire bracelet. You'll leave with a finished piece and the confidence to continue weaving on your own. All materials and instruction are provided.

**Sunday, August 9, 12:30 – 4:30 PM – Wrap Your Rock**
**Cost: $45**
In this class, students will focus on creating a pendant using a wire frame and bail. Techniques will include wrapping rocks, girdled and flat cabochons, and other flat objects. Participants are encouraged to bring their own rocks, cabochons, or found objects. Materials and instruction are provided.

Each class runs for 4 hours, and participants may register for one or both sessions.
**Class size is limited to 10 people, and registration is filled on a first-come, first-served basis.**

Participants must be current GTARMC members to attend. Payment must be made in advance, as spaces are not confirmed until payment is received. Electronic payment is preferred. Those paying by check should mail payment to Cathy Kowaleski, 801 S. Garfield Avenue #241, Traverse City, MI 49686. Payment must be received by Friday, July 17. After signing up, you will receive an email with a link to the electronic payment page if you are accepted, or notification if you have been placed on the waiting list.

Class Location:

5123 N Royal Drive
Traverse City, MI 49684

Note: Parking and entrance is at the back of the building.
Sign up here: https://forms.gle/NhJuX5ANnyfnRo9h8

## The end of an era !

**After 60 years of business, the C & M rock shop on US-31 between Interlochen and Honor will be closing at the end of the season.**

For the entire summer, almost everything inside and outside is being sold at 50 percent off. Visiting early would be a wise idea since once it's gone,

it's gone. Store hours are Monday through Saturday from 10:00 am to 5:00 pm. They are closed on Sundays.

# Rockhound of the Month

Dr. Glen Johnson was chosen as Rockhound of the Month for May for his assistance in finding a new location for our club workroom and space for classes.

## President's Message

What a meeting we had in May. Our presentation on geologic time certainly sparked conversation. For some, the topic felt like it touched on Biblical versus evolutionary perspectives, and subjects like that can naturally stir strong feelings. We are a club made up of people with many different backgrounds, beliefs, and levels of geological experience, and that diversity is part of what makes our group special.

With that in mind, it's important that we handle disagreements with respect. If an attendee disagrees with part of a presentation, the appropriate way to address it is to speak with the presenter privately during the break or after the meeting. Shouting or using profanity during a program is never acceptable and only disrupts the experience for everyone. I'll be honest—at times the interruptions left me unsure of how to proceed. Our presenter came prepared for a thoughtful, civil discussion, and that is something we should all strive to uphold. Regardless of our personal viewpoints, we must appreciate the time and effort our presenters invest in preparing their programs. No one should walk away feeling attacked or discouraged from sharing their knowledge in the future. VP Bob White continues to work hard to bring engaging speakers to our meetings, and as a club we have a responsibility to show courtesy, decorum, and gratitude. Let's move forward with the shared goal of learning from one another and creating an environment where every presenter—and every member—feels respected.

Eric Hallman
Current President

## Membership Information

From Cathy Kowaleski, Membership Chair:

You must be a paid member to continue to receive club benefits (participation in classes, outings and receiving club newsletters.) Dues are $20 per Adult, Students (8-17) $5, and those under 8 are free with an adult membership. Name badges are $8 per badge.
Thank you!

Make checks out to GTARMC.

Membership dues may be mailed to:

Cathy Kowaleski, Membership Chair
801 S. Garfield Avenue #241
Traverse City, MI 49686

### Club Email Addresses

gtarmc@tcrockhounds.com (is our main club email address)

To send a request for classes or workroom time, please send an email request to our club scheduler.

scheduling@tcrockhounds.com

If you have any photos that you would like to share of club events or members, those can be sent to:

noonanjohntc@gmail.com

To view club photos on Flicker, enter the following web address:
GT Rock & Mineral | Flickr

| **President** | **Vice President** | **Secretary** | **Treasurer** |
|---|---|---|---|
| Eric Hallman | Bob White | De Elder | Callee Newhouse |
| 231-620-6567 | 231-676-3644 | 231-463-3793 | |
| ehall686@gmail.com | bluerockcreative@gmail.com | jde123123@yahoo.com | Callee.newhouse@gmail.com |

| **Field Trip Coordinator** | **Education & Training** | **Workroom & Classes** | **Facebook Page** |
|---|---|---|---|
| Dave Regalbuto | Pierre LaFoille | Renee Libby | Jenny Burcroff |
| 517-256-4716 | 586-907-3512 | | 231-499-4714 |
| dregs9727@yahoo.com | pals0210@gmail.com | scheduling@tcrockhounds.com | burcrofj@gmail.com |

| **Newsletter & Website** | **Membership** | **Refreshments** | **Club Show Chair** |
|---|---|---|---|
| Lauren Vaughn | Cathy Kowaleski | Pat Captain | Lauren Vaughn |
| 231-276-6150 H | 231-633-0700 | 231-946-3026 H | 231-276-6150 H |
| 231-342-3613 C | ctkowaleski@gmail.com | 231-342-6674 C | 231-342-3613 C |
| maple2b@aol.com | | cappat@aol.com | maple2b@aol.com |

The above contact list will be included in each newsletter so that you know who to contact for various items.

## Help Wanted

The club is still in need of a secretary. It is a position that does not require a huge time commitment. Notes are taken at club meetings and then the minutes of the meeting are created and shared with the club. Please see President Eric to volunteer for this important club position.

Also, Dianne Hallman needs a helper or two for the Kid's Table preparations for the annual September show. Please see Dianne to volunteer. Also, they need items donated for the Kid's Table. Things like Petoskey Stones, Leland Blue, small and medium polished stones are all welcome.

# Pebble Pups News

For more information about the Pebble Pups, check out their website.

**https://traversepebblepups.blogspot.com/**

## Calling All Rockhounds: The Pebble Pups are Hitting the Road!

Get ready to rumble! Our Pebble Pups have been officially invited to take center stage at **five area libraries** this summer! We're bringing the world of geology to the community, and we need **YOU** to help us make it a smashing success.
To make this hands-on experience unforgettable, we are providing a fossil, mineral, and rock "dig" for the kids, and we need a mountain of specimens.


**What We're Looking For**

We need items that are small but mighty! Please check your stashes for specimens **no larger than the size of a quarter**:

- **Tumbled Stones** (Smooth and shiny!)
- **Small Crystals** (Quartz, calcite, you name it.)
- **Crinoid Stems** (The classic "cheerio" fossils!)
- **Fossils** (Brachiopods, trilobite bits, chain coral, Favosites, Petosky stones)
- **Unique Specimens** (Anything cool that fits the size limit!)

**How to Donate**

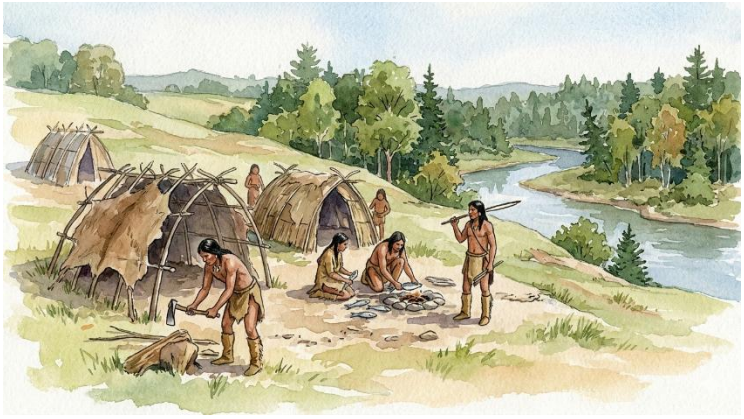
Pack up your treasures and bring them to the **next meeting**.

**Drop-off Point:** Please hand your donations directly to **Steven Veatch**.

Let's show these libraries why our club rocks! Thank you for supporting the next generation of geologists and the growth of our club.

**PEBBLE PUP FIELD TRIP**

## The History and Archaeology of Samels Farm



**YOU'RE INVITED:** A Deep Dive into Samels Farm!

An exclusive archaeology and ancient history adventure for the GT Area Rock and Mineral Club's Pebble Pups.

Attention Pebble Pups! Are you ready to trade your rock hammers for archaeology tools? Samels Farm cordially invites the Pebble Pups to a private, hands-on exploration of their historic grounds. Pebble Pups aren't just going to look at the surface—they will dig into the stories hidden beneath it.

**On the Agenda for Visiting Pebble Pups:**
**The "Dirty" Work** (shovel testing): Put your observation skills to the test! The Samels Farm will set up a special shovel-testing station where Pups can learn to screen soil for artifacts. They have "seeded" the area with replica treasures to teach the professional techniques of archaeological recovery.

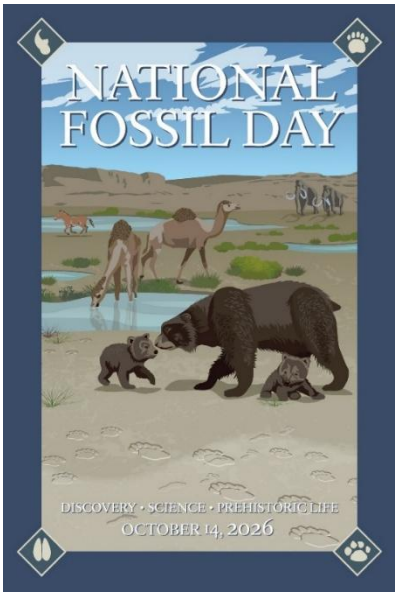
**The Forest Secrets:** Join in on a trek into an Old Growth Forest. Then hunt for Cache Pits—ancient storage features—and discuss how the geology of the land influenced how people lived hundreds of years ago.
**Artifact Show & Tell:** Get up close and personal with genuine and replica artifacts found on the farm. Their experts will discuss the history of the farm and archaeology.
**Grounds Tour:** Experience a guided walk through the farm's immediate footprint to see how the landscape has changed (and what stayed the same) over the centuries.

**When & Where**
🗓️ **DATE:** August 5, 2026
⏰ **TIME:** 1 pm to 4 pm
📍 **LOCATION:** Samels Farm, 8298 Skegemog Point Rd, Williamsburg, MI 49690
🥾 **What to bring:** Wear your favorite hiking boots or sturdy shoes and water. Dress for a summer afternoon.
**Note to Parents:** This is a fantastic opportunity for Pebble Pups to see how artifacts and this ancient occupation site tell the story of human history. It's interactive, educational, and—most importantly—a lot of fun.
**RSVP**
Please let us know if your family will be joining the expedition by **July 20, 2026**
Contact: Steven Veatch, steven.veatch@gmail.com
We can't wait to see what the Pebble Pups Learn!

**SAVE THE DATE**
**EARLY ANNOUNCMENT**
## Earth Science Week and National Fossil Day Celebration

**When:** Wednesday, October 14th from 5:30 - 7:30 pm
**Where:** Boardman River Nature Center
**Registration:** Free, registration is required through the Boardman River Nature Center
**Audience:** Families and children

**Celebrate Earth Science Week** (October 11-17) **and National Fossil Day** (October 14) with Pebble Pups and the Boardman River Nature Center!
This celebration will showcase the incredible ways Earth science is conducted by a diverse range of people and professions, as well as how they work together to solve critical problems that our planet and communities face. Through this year's theme, "Critical Minerals for a Thriving Society", minerals that are essential for modern life and how professionals source them responsibly will also be highlighted. Marvel over a collection of truly amazing fossils and uncover the secrets they hold about ancient life and Earth's history. You won't just learn about fossils – you'll leave with one of your own to start your personal collection!




Next is an interesting article by Pebble Pup – Wyatt Maeder

# Investigating an Ancient Roman Architectural Artifact

By: Wyatt Maeder

This Roman tile fragment was found in the Roman Empire. The exact location is unknown. The tile may have covered a Roman home or business. It looks like a type of tile called a *Tegula,* a flat rectangular tile with raised flanges on the sides. The analysis of the artifact is in the following table.

| **Artifact Analysis: Roman Ceramic Tile** | |
|---|---|
| **Probable origin** | Roman |
| **Estimated age** | Circa 1,926 years old (100 CE) |
| **Classification** | *Tegula* (flat roof tile) with a raised flange on its side |
| **Physical Dimensions** | |
| **Weight** | 0.54 kilograms (1 lb. 3.1 oz) |
| **Length** | 14 cm (5½ in) |
| **Width** | 11 cm (4¼ in) |

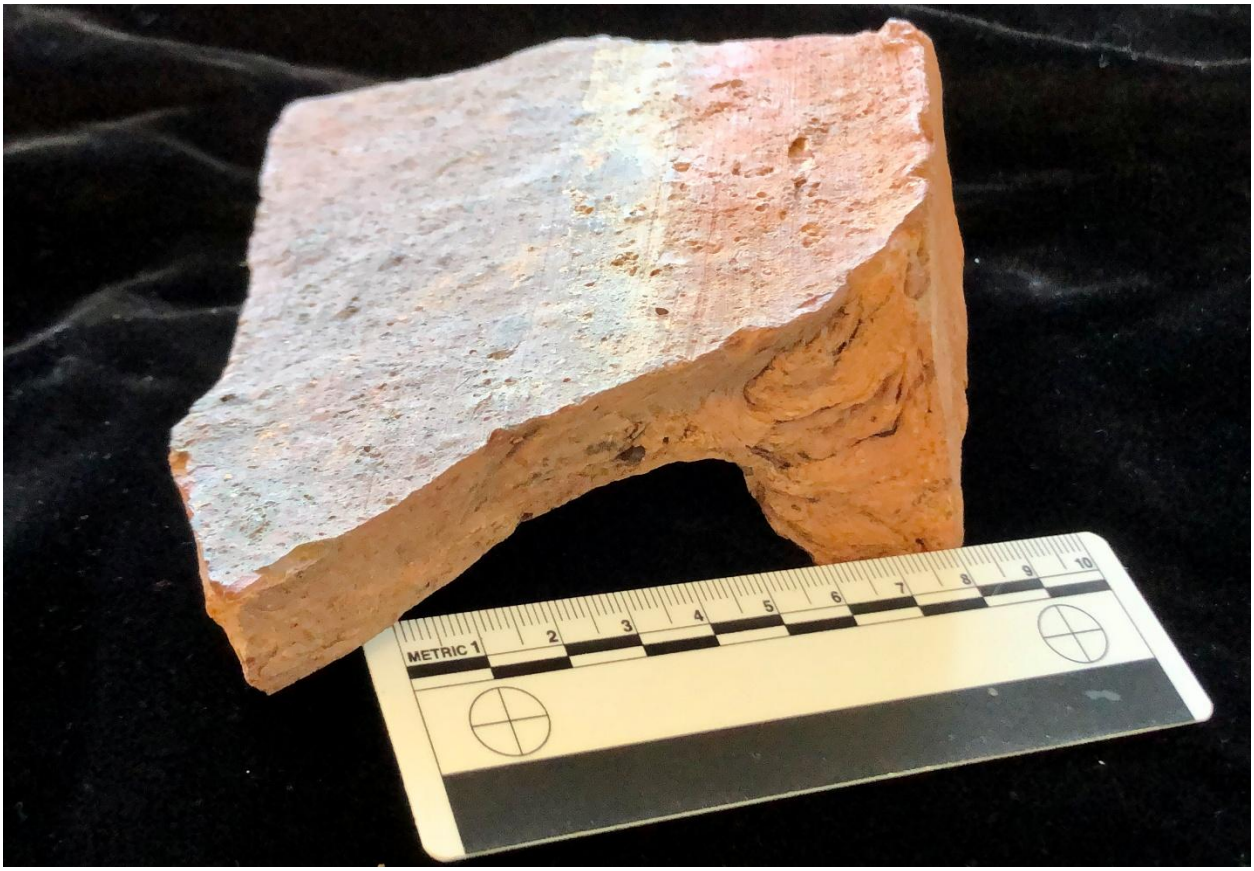



**Figure 1.** Side view of a fragment of a Roman tile, likely a roofing (tegula) tile. Photo date 2026 by W. Maeder. From the collection of Wyatt Maeder.

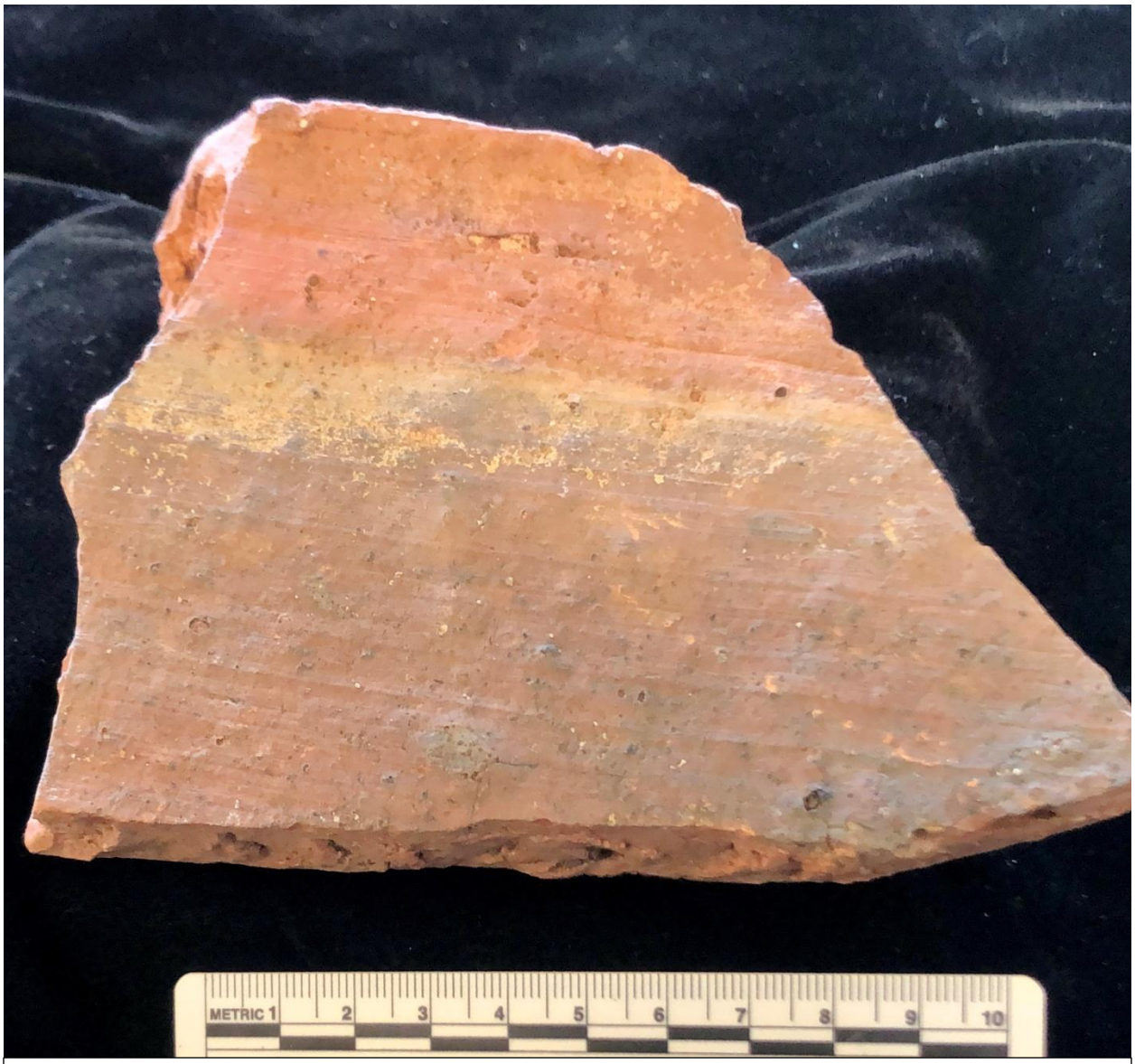



**Figure 2.** View of the top of the Roman tile. Note the red coloration and thickness of the tile. Photo date 2026 by W. Maeder. From the collection of Wyatt Maeder.

Visual inspection suggests a fabric rich in quartz grains and iron oxide, which gives the ceramic tile its characteristic hue. The presence of dolomite is also suspected, likely introduced via sand temper.

The tile may also contain natural clay from the Moza Formation, however, to determine this it would require laboratory analysis. Without a kiln-site test, it remains unclear if the material is refined clay from Rome or the Levant (Roman Judea). If is from Rome, it would likely be made from volcanic clays or muddy deposits from the Tiber Valley. Clays from around Rome are heavily influenced by the volcanic history of the Lazio region. Under a microscope, you would expect to see volcanic minerals such as augite (pyroxene), biotite, and sanidine (feldspar). Some Roman bricks even contain tiny fragments of volcanic tuff. If it is from the sedimentary Moza Formation there would be dolomitic sand and you would see dolomite crystals and limestone fragments, but you would find zero volcanic minerals like pyroxene. Moza clay typically fires to

a light pinkish-orange, yellow-brown, or buff color. Because it is often rich in calcium carbonate (marl), it has a "creamy" look when fired at standard temperatures. Roman (Tiber) clay: Often has a deeper red to reddish-brown hue due to the specific iron oxides found in the volcanic-rich Italian soils.

**Manufacturing Process**

Making a Roman roof tile was a lot like a professional version of making a clay project in a classroom, just on a much larger scale. First the workers dug up natural clay and mixed it with water. They added a little sand or crushed old bricks (called "temper") to keep the tile from shrinking or cracking when it got hot. Then the workers shaped the tile, they pushed the wet clay into a wooden frame, sort of like a large brownie pan. For a flat roof tile (*tegula*), they would use their fingers to create raised edges (flanges) on the sides so the tiles could lock together (see figure 1. and 3). Next it was time to stamp and dry the tile. While the clay s still soft, the workshop would often press a stamp into it—like a brand name—to show who made it. Then, they left the tiles out in the sun to dry out most of the water. Next, it is time to fire the kiln: The dry tiles were stacked inside a massive brick oven called a kiln. A fire was kept burning underneath for several days. Once the temperature hit around 900°C, the clay turned into hard, waterproof stone-like tile. Finally, after the kiln cooled down, the tiles were ready to be shipped to a construction site to keep a Roman house dry for hundreds of years.


**Figure 3**. Closeup of tile showing a raised flange on a Roman tile. Photo date 2026 by W. Maeder. From the collection of Wyatt Maeder.

Whether used as a protective roof covering or a component of a heating system, this artifact serves as a remarkable testament to the intersection of ancient mineralogy and ritualistic craftsmanship. Its enduring composition highlights the sophisticated engineering techniques that have allowed Roman architectural elements to survive for over a millennium.

**Acknowledgment**: Special thanks to my Mom for all the hard work she did to help me with this paper. Steven Veatch provided critical review.

**Reference and further reading**

Brodribb, G. (1987). Roman brick and tile: An analytical survey and corpus of surviving examples.

Cohen-Weinberger, A., Levi, D., & Beʾeri, R. (2020). On the raw materials in the ceramic workshops of Jerusalem, before and after 70 C.E. *BASOR: Bulletin of the American Schools of Oriental Research*, 383(1), 33–59. doi.org

Cohen-Weinberger, A., Martin, M., & Goren, Y. (2024, February 11). Israel-Palestinian Authority/central highlands/Moza clay. The Levantine Ceramics Project. https://www.levantineceramics.org/petrofabrics/32-israel-palestinian-authority-central-highlands-moza-clay.

Gerding, H. (2006). Early use of fired brick in Hellenistic and Roman architecture. In C. Mattusch, A. Donohue, & A. Brauer (Eds.), *Common Ground: Archaeology, Art, Science and Humanities - Proceedings of the 16th International Congress of Classical Archaeology*, *Boston, August 23-26, 2003* (pp. 355-358). Oxbow Books.

And to finish this month's newsletter is a great poem by Steven Veatch!

## What Are Rocks For?

***A Liturgy of Deep Time***

For being older than me, memory, or myth—
for giving up a history, layer upon layer, under pressure,
for recording the silent closing of a vanished sea.

For telling stories in the language of strata.
For marking the unconformity of time itself.
For the deep archive waiting in the planet's silence.

For slow magma cooled miles beneath the light.
For mica, quartz, and feldspar: the mosaic of granite.
For granite, the crystalline foundation of continents.
Exhumed, it stands against the open weather—
yielding only to the patience of weathering,
till erosion claims the rubble.
For bearing the stress of mountain building,
and teaching the craton[1] how to endure.

For Earth's recycled materials,
for the wheel of the world that never rests:
the igneous birth in the furnace of the rift,
the sedimentary layering of the long descent,
and the metamorphic weight that pulls
the old world back into the new.
For echoing the percussion of volcanic eruptions,
for gold born in a magma furnace and injected
into hydrothermal veins—

For keeping secrets deep in solution caverns,
where calcite drips down a slow, stalactite with time.
For shale holding the liquid memory of the sun and plants
within its oil, and the silent fire of the geode's heart.

For marking where glaciers melted, receded, and shed their stony till.
For erratics, those displaced giants dropped by the ghost of vanishing ice.
For the ivory-white silence of the North, where gravel mounds
and frozen silt hold the weight of the mammoth's grave—
a heavy reliquary of bone and flint locked in the grip
of the terminal moraine

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[1] A craton is an ancient, stable part of the Earth's continental crust that has survived tectonic plate activity and mountain-building processes for billions of years.

For the hunter's chert to make a sharp edge,
for anchoring our small and wandering steps.
and yet—they do not merely hold the past;
they are the threshold where the living stand.
In their mineral pulse, we find our own,
the slow, steady beat of a world that waits
to turn our dust into a future rock.

***By Steven Wade Veatch***


**What rocks are for.** *Image generated by S. W. Veatch using Google Gemini.*