Extensive gallery: <a href="https://medium.com/@shrean">https://medium.com/@shrean</a>

# Microscopy: Coriander, Crystals, Foam, and Rust Shrean Rafiq - Bangladesh

Good evening. May peace be upon you.

I find nature to be arrestingly beautiful. No matter what angle, what light, or what scale I view it in, it never disappoints, and never fails to strike wonder. Galactic clusters, nebulae, mountains, trees, leaves, or rust, they are all awe-inspiring

I took up amateur microscopy to be awed and inspired on the microscopic level. Today, I want to convey the same feeling to you. Here are some bewitching pictures from under the microscope lenses.

#### **Viewing Apparatus:**

Microscope: Monocular compound light microscope with 10x eyepiece magnification. The objective lens is listed under the images.

Camera: Mid-range mobile phone camera. No tripod setup. Photos cropped in Snapseed.

Viewing: No stains or special techniques were required for these specimens. Certain procedures are listed alongside the pictures as required.

# **Leaves and Coriander:**

A bit of coriander, bright and green, viewed under the microscope.

### **Procedure:**

Place on a slide and squash with a coverslip. No stains were used.



A dancer's pose.



Not exactly sure what this is. Probably some fibers within a water bubble. But isn't it cute and goofy?

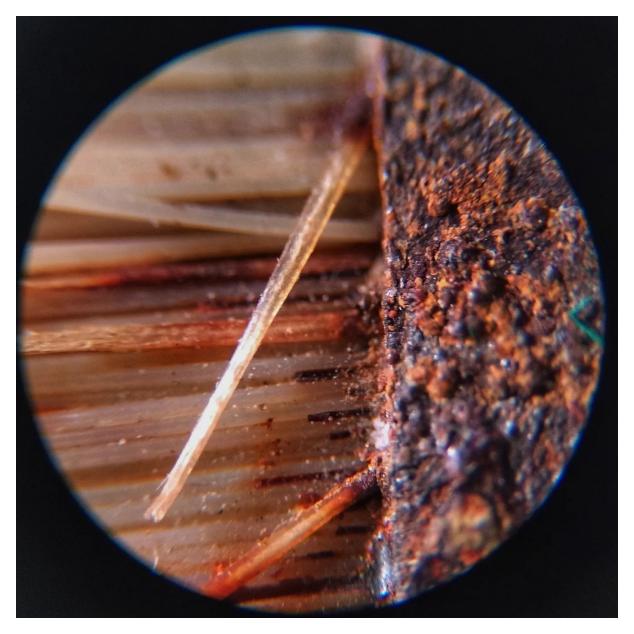


Zoomed up. Still cute. The two dots in the middle look like eyes.

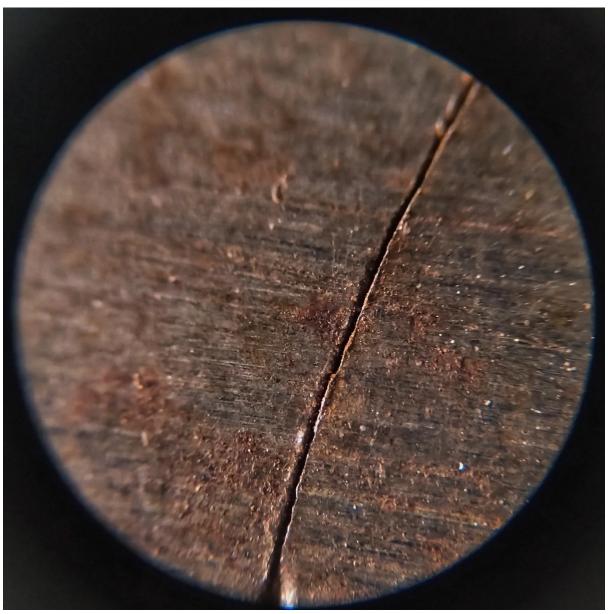
# **Rust and Bristles:**

I placed a rusty wall brush and a plier under the microscope. Turns out, rust can be beautiful too.

**Procedure:** Place heavy tools carefully on the stage, making sure to keep the delicate lenses protected, and adjust the light. No slides were used.



4x objective; 40x total magnification.



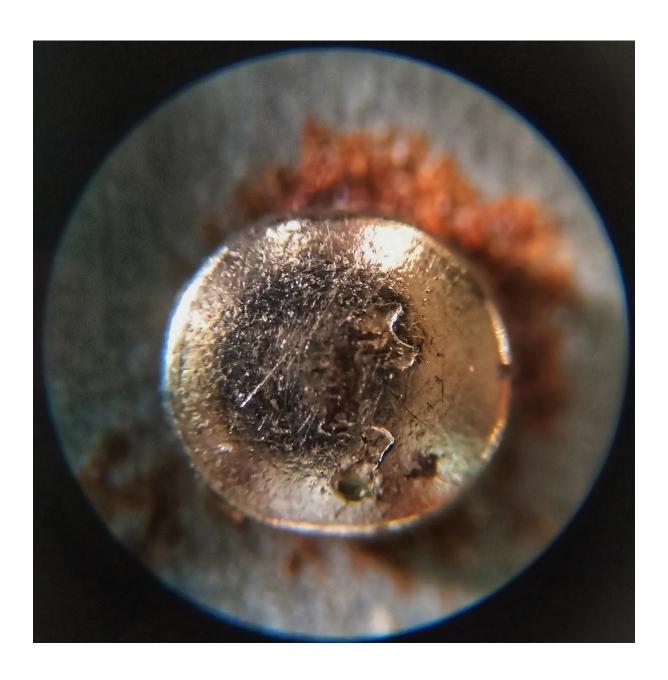
The intersection is barely noticeable with the eyes, so thin your fingers would pass over without noticing. Look at how it curves, notice how the two parts touch, but barely.



Look at the texture, the detail of the rust. Can you feel the roughness? The flakiness? Look at the color, the various shades and tones. The chaotic yet symmetric amalgam of the lighter and darker shades.



Found this engraved into the metal. The shakiness of the lines suggests it was hand-carved, but it feels too tiny to be so. Either way, I will accept it as a gift.



Look at the chinks and scratches, the tiny curvature of the bulb, the black ring, the reflections of the light, the metallicness of it all.

# **Pink Salt Crystals:**

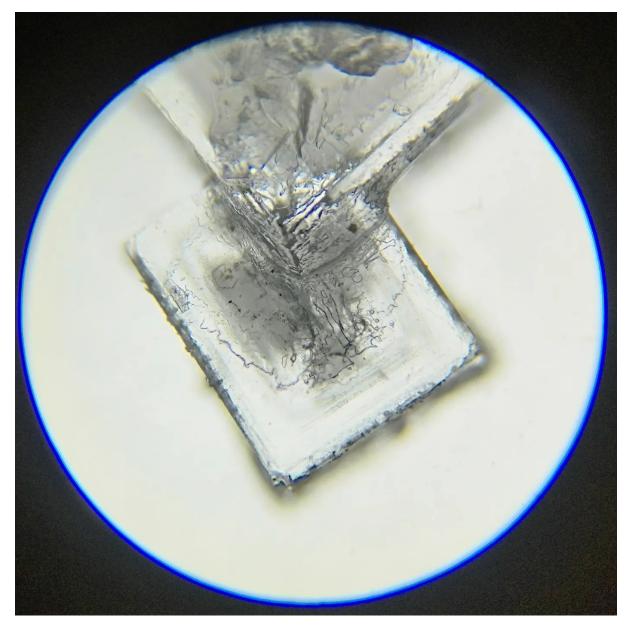
Recrystallized Pink Salt or Himalayan salt is enthralling and complex under the microscope.

#### **Procedure:**

Make a saturated solution of pink salt by dissolving the salt in excess cold distilled water. Do not heat. Leave the solution to dry slowly. Might take several days.

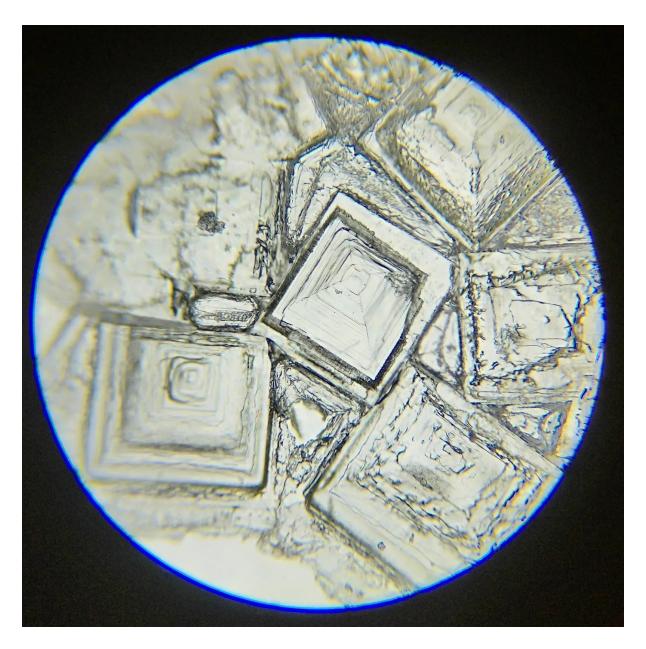
Place individual crystals on a slide and view them under the microscope. Coverslip is

Place individual crystals on a slide and view them under the microscope. Coverslip is optional.

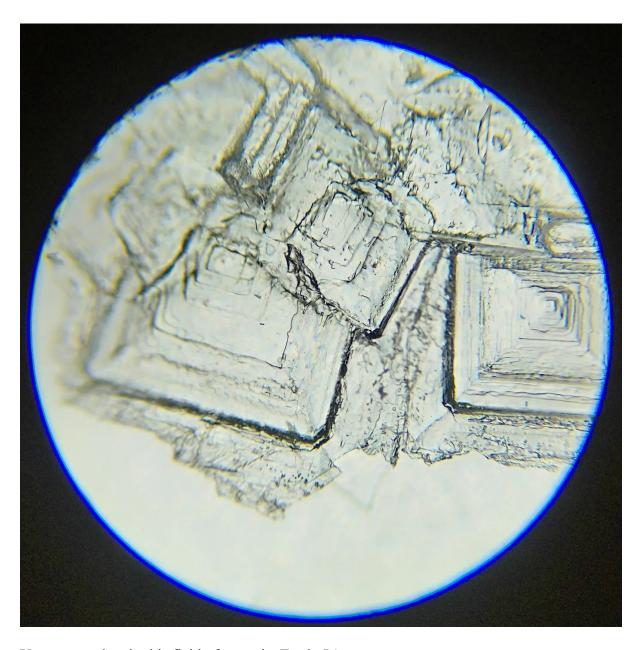


It's wonderful how even and uniform the structures are, chaotic though they sometimes look.

4x objective; 40x total magnification.



Look at the sheer complexity, intricacy, and detail. There is so much going on in nature that it's beyond us, even, to fully grasp and appreciate something so minuscule it's practically dust.



You can get lost in this field of crystals. Try it. It's awesome.



A tiny blade-end of a crystal, barely visible in the unfocused fog of a 400x magnification.

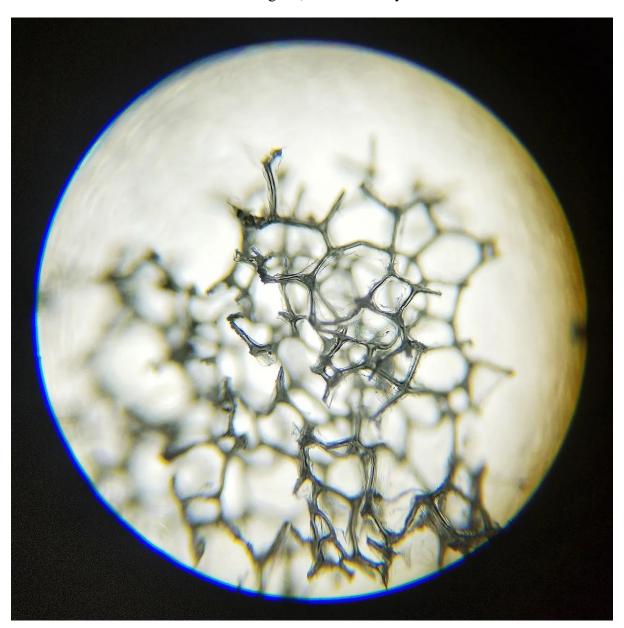
40x objective; 400x total magnification.

### Foam:

The fibrous structure of foam is miraculous under a microscope. The intricate matrix of the interconnected tissues is delightful, to say the least.

### **Procedure:**

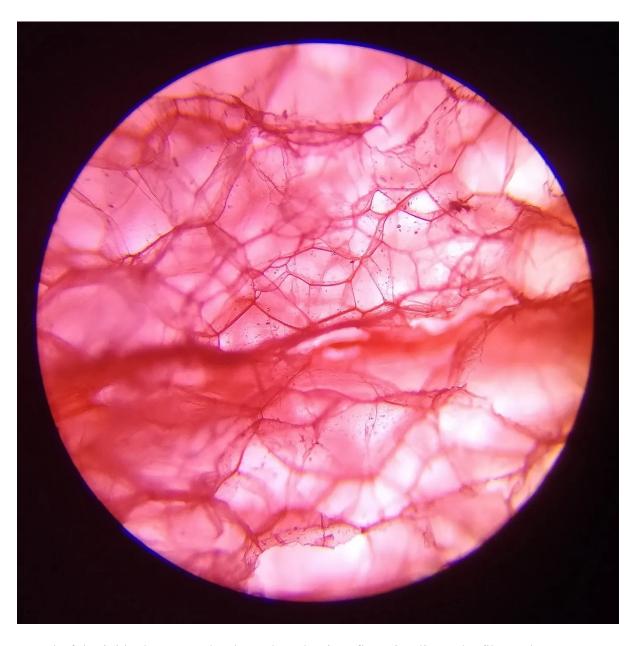
Thin slices of foam dry mounted onto a slide on the microscope. The thinner the slice better the focus. The colors of the foam are original, no filters or dyes were used.



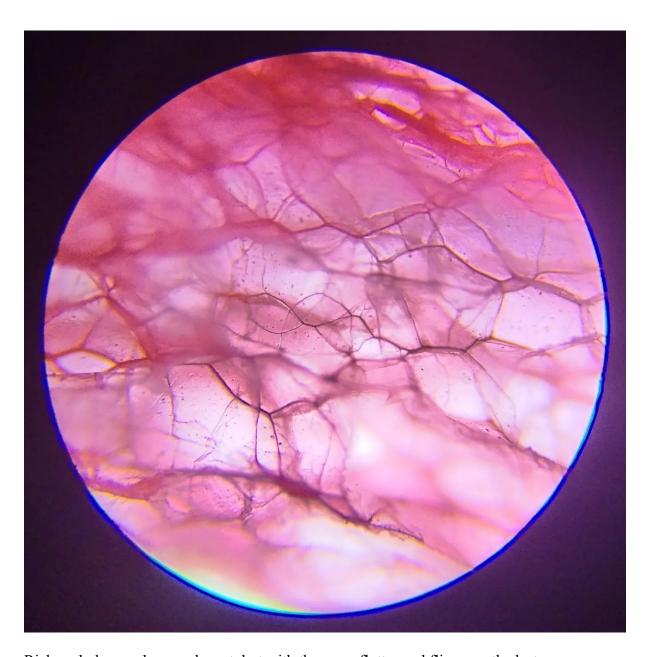
Fragile and delicate looking, as if they'd crumple under the slightest touch, while in reality, with each fiber holding up the other, they're surprisingly resilient.



10x objective; 100x total magnification.



Wonderful, vivid, elegant, and red. Look at the tiny, fluttering lines, the fibers, the curvatures, and the vibrancy of the colors.



Richer, darker, and more elegant, but with the same flutter and flimsy as the last. *4x objective; 40x total magnification.* 

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