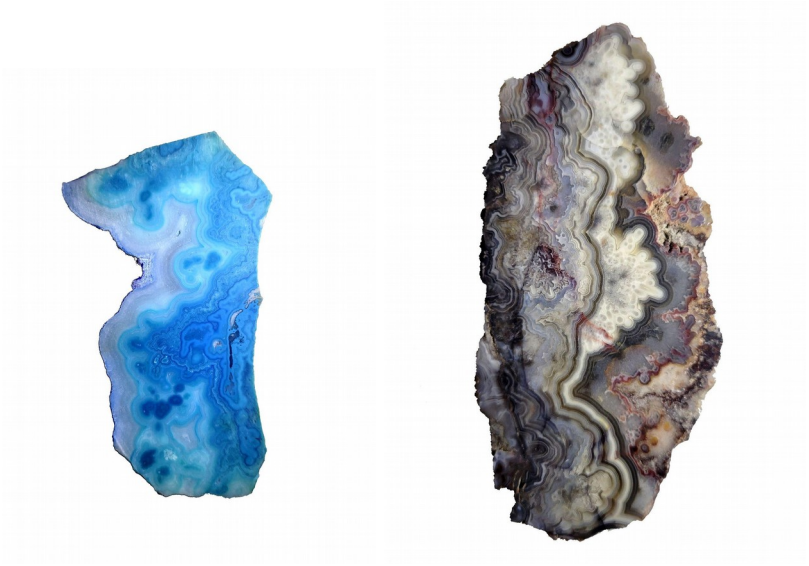
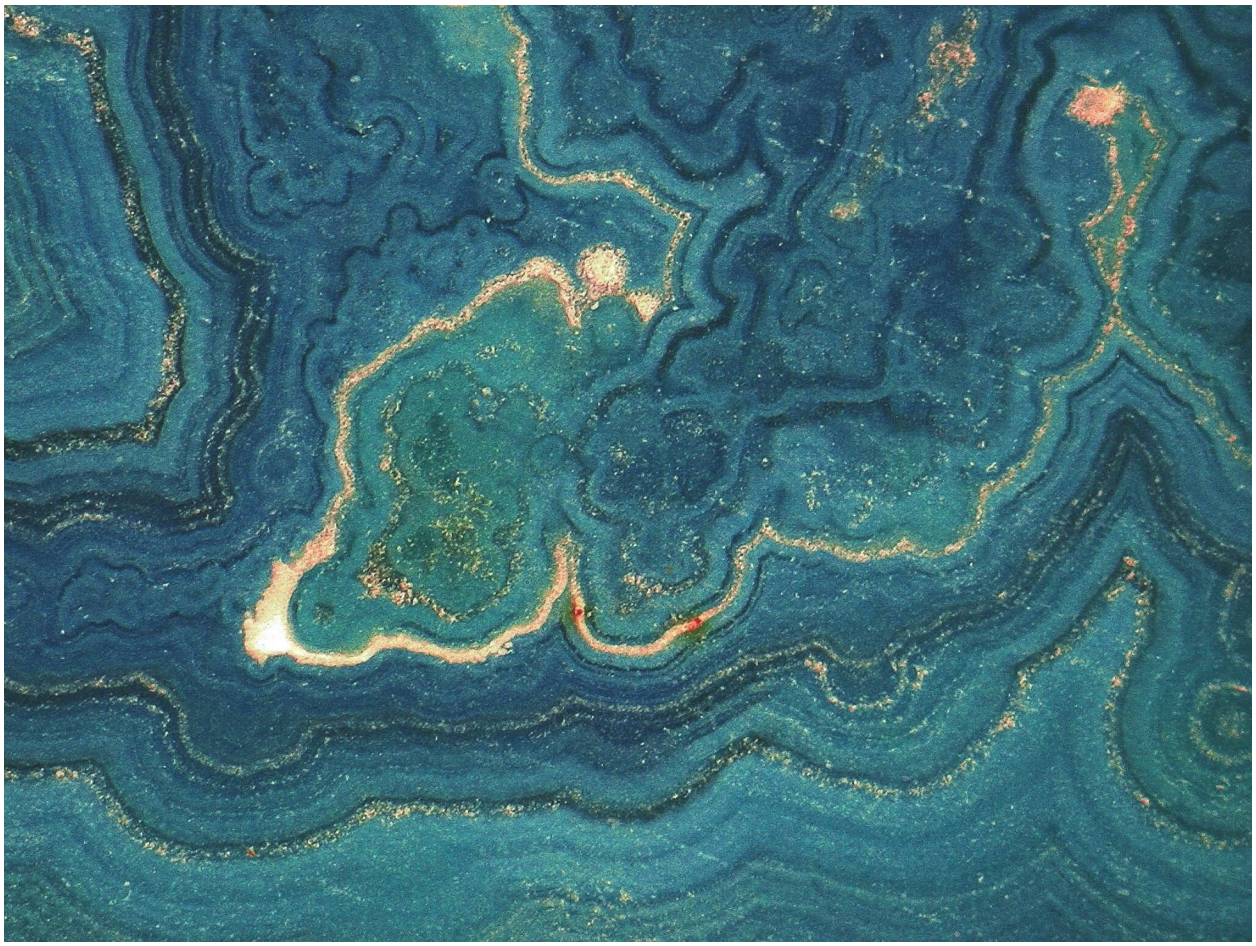
Sliced Rocks
By Sawyer Winn

Where I live in Wyoming, there are so many large rock formations right by my house. I've always been fascinated by all the different types of minerals present in these. Most of the rocks here are granite, but oftentimes patches of quartz pebbles can be found scattered around on the ground, amongst pebbles of the granite itself. You can even find large pieces of quartz contained in granite, and sometimes these inclusions of quartz and other minerals, mainly feldspar and mica, form some interesting patterns. This is one of my favorite parts about living in a place with such beautiful rock structures, because you can admire it from afar and up close.

These pictures are all from four rock or mineral sections. Each one is about a half inch thick, and range in size from the size of an egg to the size of a hand. All these specimens come from a vendor, and some were labeled but others were not. Each one is very unique in color, structure, and composition. The first one is a large piece of blue chalcedony, the second is an agate section, the third is yet to be identified (no label was included on this one), and the last one is a small slice of a different agate specimen.



Chalcedony is actually not a rock, but a mineral. A mineral is composed of only one type of chemical, while a rock is composed of multiple minerals. Chalcedony is made up of quartz and moganite, which are both crystals structures of the same chemical, silica. This piece is interesting because it has a deep blue color, which looks like the ocean. Small light tan colored striations run through the piece, and these could look like sand banks. The changes in color throughout the piece range from deep blue to a greenish teal. These almost look like waves rippling through the mineral.



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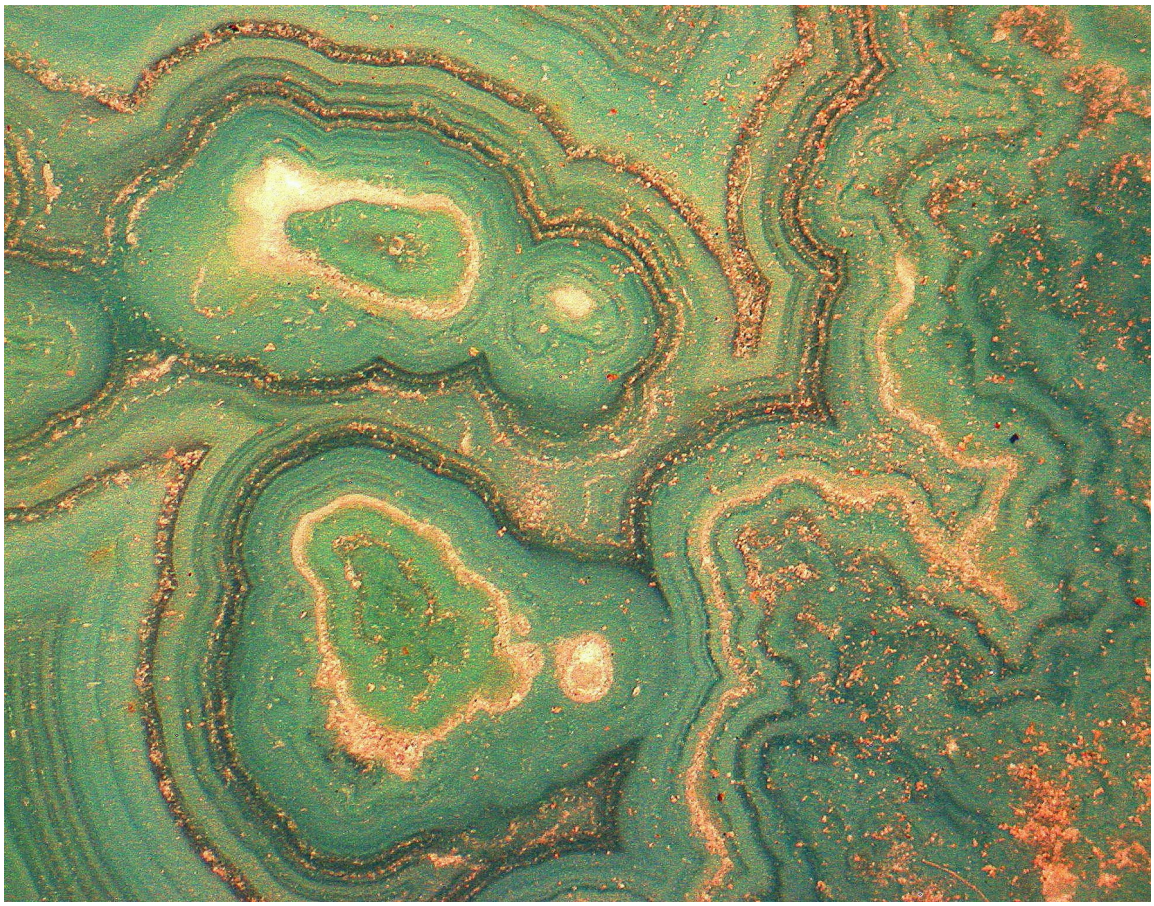
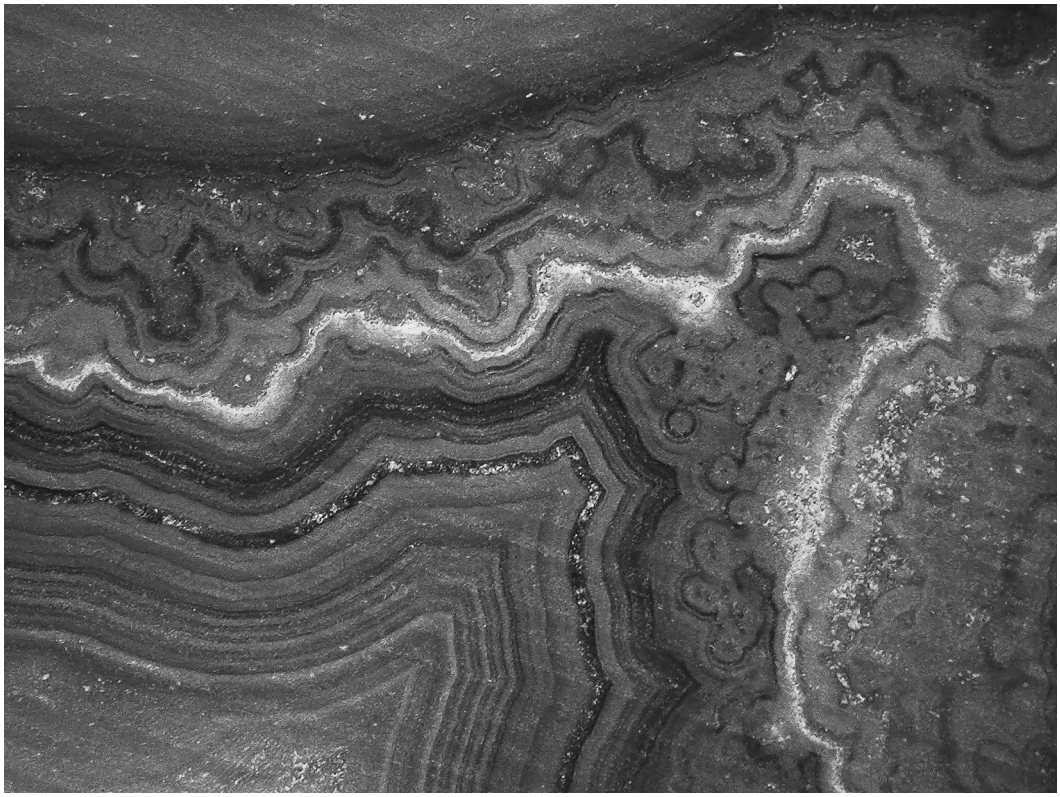
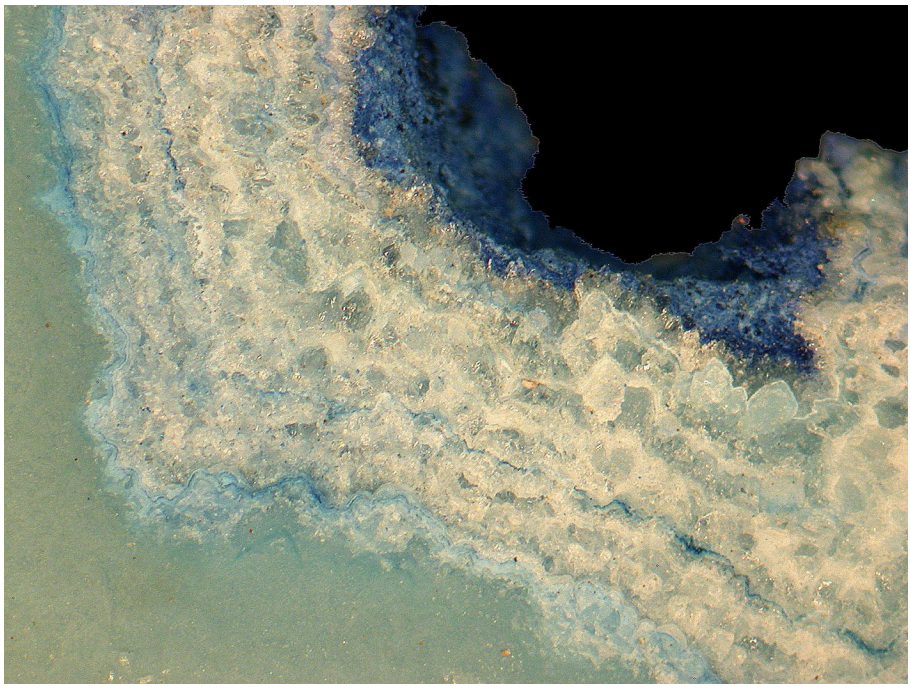
While editing these photos, the color can be changed slightly to show more of the striations running through the piece. Some of the bends in these are very round in shape, but some are very jagged and form long criss-cross patterns. It is interesting to see the different layers of color throughout the piece, and this makes looking at the rock under the microscope very fun, as there are so many different patterns in just one section.

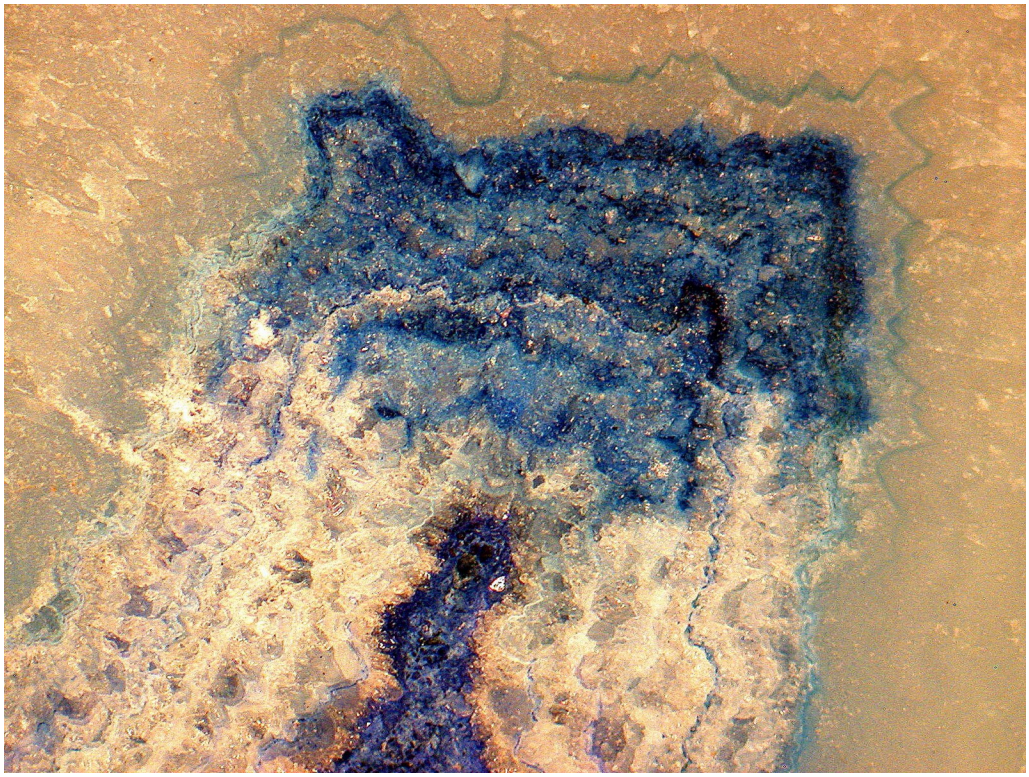


The next two are good examples for the jagged lines that run through the rock. These were taken from a more cyan colored section of the chalcedony, and they show some even more interesting layering of colors. The second of these two was desaturated, and this shows some of the edges in better contrast than the color counterpart.



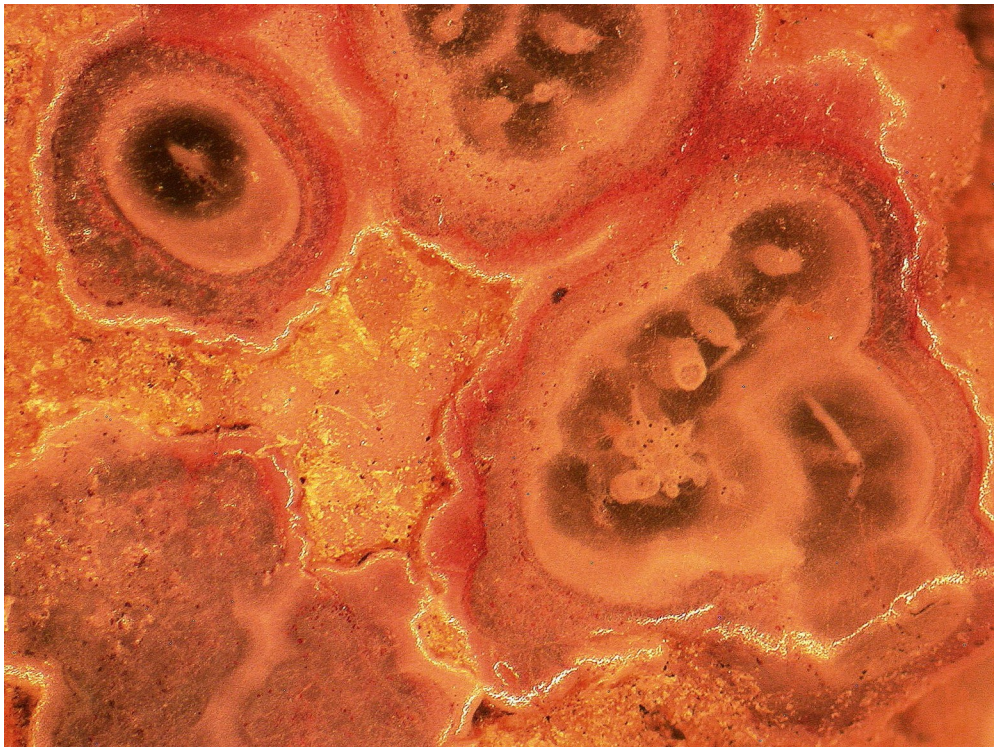
These images were taken near the edge of the piece, where some of the larger crystals grew. The large quartz crystal structure can be seen easily here. This also makes the piece much less translucent in this spot, as most of the rest was slightly translucent, but these sections are completely opaque. They also sort of look like the beach, with the foamy tides flowing onto the sand.

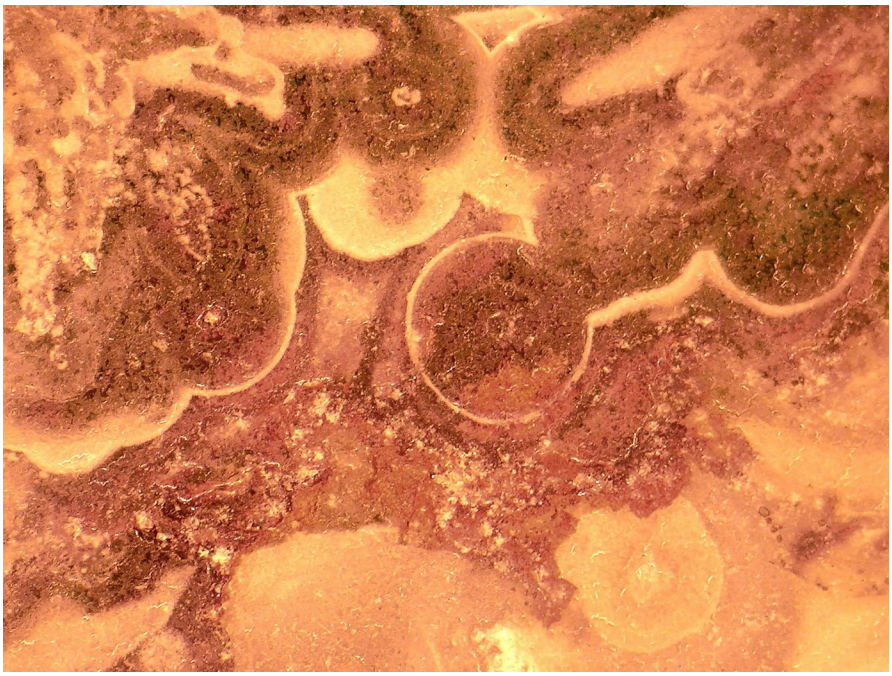




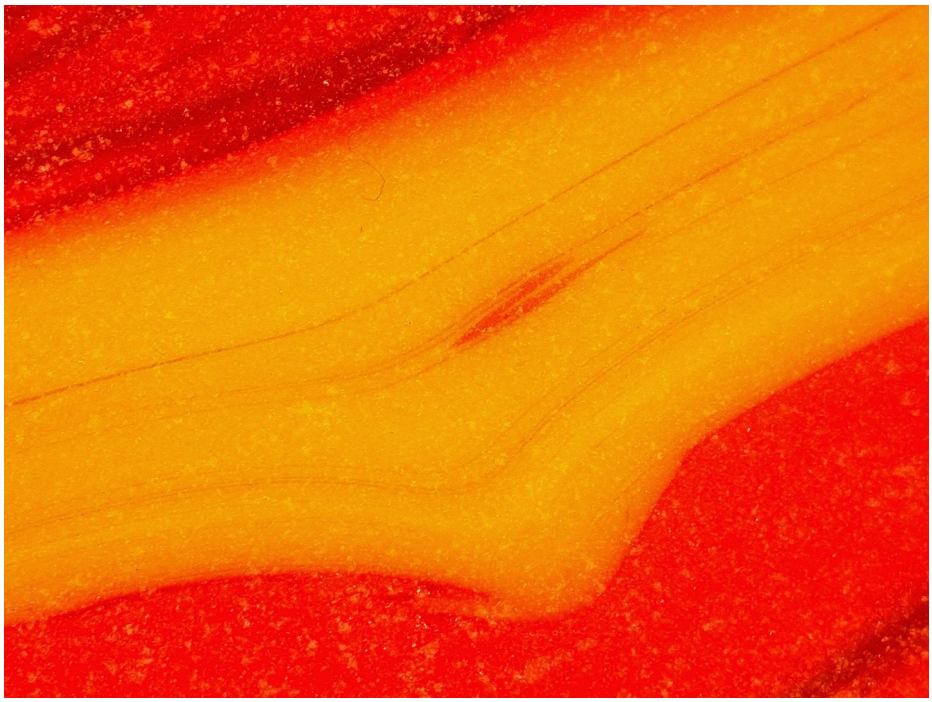
This image is a piece of agate. Agate is a rock that is composed mainly of chalcedony and quartz. These rocks tend to have smoother layers throughout, making these circular bands rather than jagged lines like in the chalcedony. The color also varies in these rocks, with dark sections of gray and maroon, and lighter sections of white and tan. This almost looks like sand dunes across the desert.

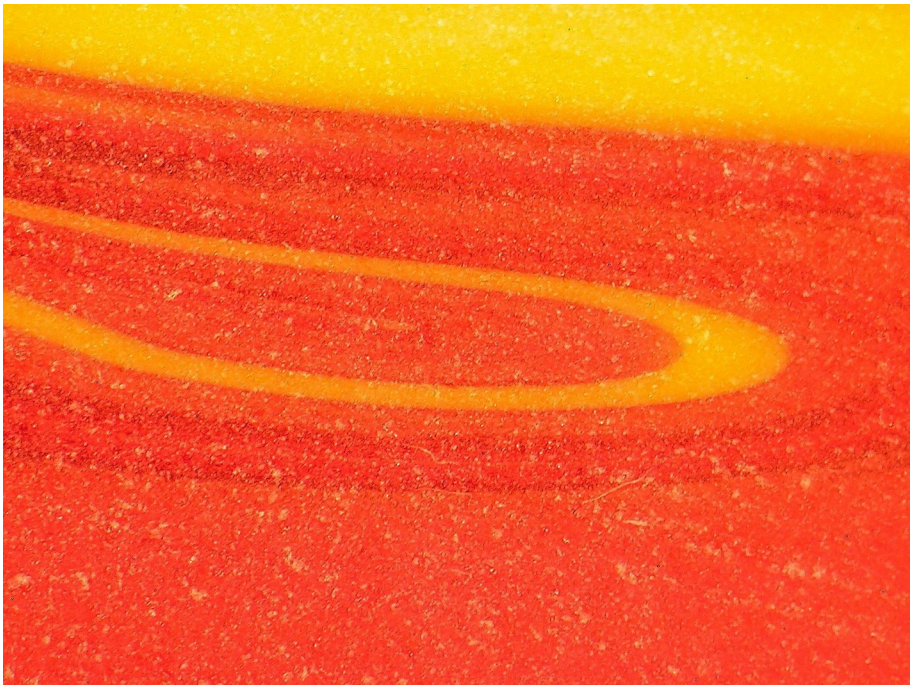
These two photos are again from agate. There appear to be bubble-like structures under the surface. These are actually just chunks of opaque agate that are covered by a translucent mineral inclusion. This makes it a very decorative rock as well, with many people being familiar with agate jewelry or decorative pieces. These are also a common geode mineral, which make for nice decorations, too. The use of agate in decorations can be dated all the way back to ancient Greece. Both of these images look like plateaus or buttes viewed from above.



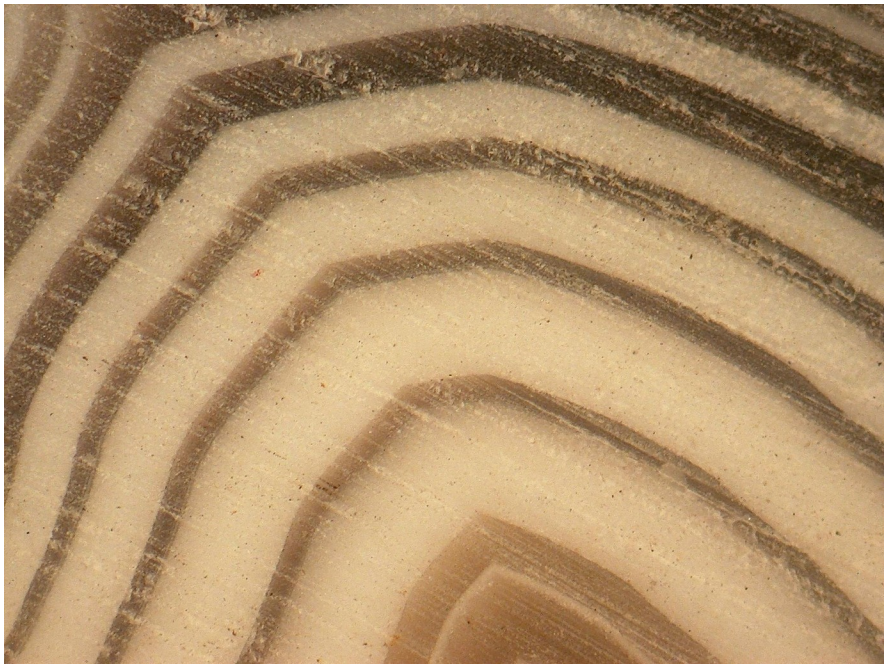


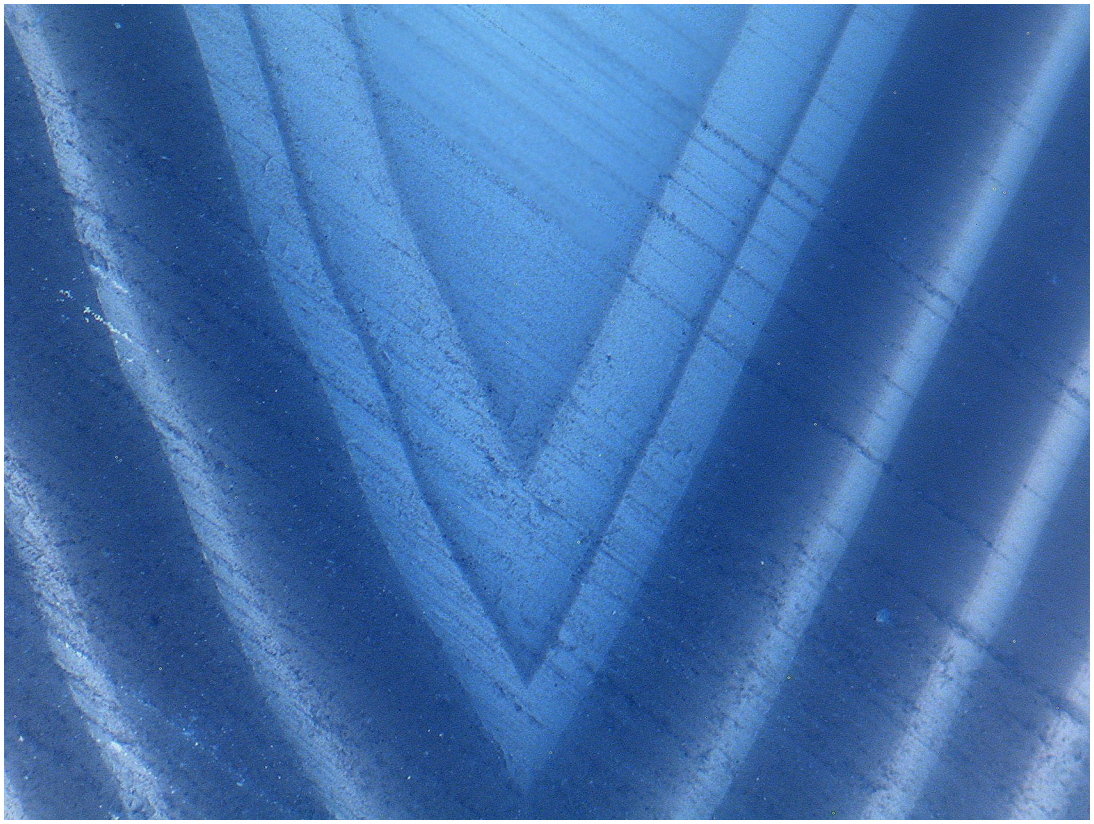
The next two images are from an unknown type of rock. It appears to be sedimentary, with different layers of minerals being stacked on top of each other over time. This rock has a red mineral forming most of the piece, with small stripes of yellow and clear minerals across the face. These stripes have some interesting shapes, like loops and little bends here and there. The color is very vibrant on these, and small crystal inclusions throughout form a static-like texture on the rock.





The last three images are all from a small chunk of agate. This piece of agate has a vastly different structure than the previous agate sample. It has smooth lines running throughout, that bend at large angles to form sharp corners. On the surface of each of these, long scratches can be seen across the piece. These are from the saw that cuts the piece of rock into slabs. Most were left in when editing the images, but removing them for the second image was quite a difficult task, and so many can still be seen along the face. The last of the three is the same image as the second, but the color was inverted. This gives it a slightly different look, but makes some structures more visible.





Even using only these four slabs, hundreds of images could be taken. The box that contained these had dozens more slabs of rock, so the possibilities really are limitless. This is one of the things that amazes me about nature, because every rock and pebble has some sort of cool pattern or shape on it, whether it's a giant boulder or a small shard. This doesn't just apply to rocks though, as every plant, insect, and natural feature has its own unique patterns. This makes nature such a wonderful thing that can be explored endlessly.

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