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Specimen X1-2020 behind the cover

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Geology and visual art historically are probably more closely related than most people consider. Not all artists think about where their pigments and dyes come from or how they are produced.

A pigment is a dry, generally insoluble substance that is usually pulverized, which when suspended in liquid becomes a paint, ink, and so on.

When I was in elementary school I was fascinated with geodes and crystals at least for a period of a few years. In high school I made ceramic pottery using glazes made from natural minerals such as feldspar (Earth's most common mineral that makes up about 41% of the Earth's continental crust by weight). My interest went on to other artistic mediums and I mostly stopped doing ceramics due to not being able to afford to buy and operate a medium-large sized kiln to properly finish my ceramic pieces. Eventually I got into abstract painting and sculpture and after a few years of that I thought to incorporate rocks and minerals into my sculptures. This led to a new hobby which many people call "rockhounding". I search and dig for my own minerals instead of only buying them from others. However, I rarely find exactly what I envisioned for my art pieces. In the sculpture that is pictured I decided to only incorporate terminated quartz crystals (terminations when referring to crystals describes how they naturally form at one or more ends) that have been altered by metal coating (Quartz is the Earth's second most common mineral and I think the most diverse in visual form. There are more forms of quartz than I ever realized before I learned so after starting my rock collecting hobby; colorful agates are one of my favorites and none are exactly the same).

One of the best ways to identify a mineral if you are unsure what it is, is to check its hardness on the Moh's scale of hardness. If you can or can't scratch it using certain common materials that can narrow down what it might be very quickly. One of the most common mix ups is between quartz and calcite, both form in diverse ways and some look similar. Calcite is considerably softer than quartz, calcite is about a 3 where quartz is a 7. Common steel is between those, so if you can scratch the specimen with a knife or steel nail easily it isn't quartz. Diamonds are a 10 on the Moh's scale, which is why diamonds are now used and manufactured to use as a grit that is applied to saw blades and grinding wheels to shape rocks/minerals for decorative purposes, but even diamonds wear down over time when being used as an abrasive. This relates to lapidary arts which is the work involved in engraving, cutting, or polishing stones and gems. I am incorporating lapidary in some of my art pieces, but I haven't quite completed any I'm very proud of yet.

The geography of the Southern California desert hosts very diverse rock and mineral deposits, some quite unique in comparison to the rest of the world. I have collected mica which is used as pigments and I have dug for agates(diverse forms of quartz/chalcedony) next to mounds of ochre (ochre is also historically used to make pigments and was used along with charcoal in some of the oldest known cave paintings). I generally like a lot of colors in my recent sculptures, so I use a wide range of pigments that are sourced from around the world.

I'm still picking up geographic and geological terms as I am not a geologist but kind of jumped into such a closely related hobby. I am also not a physicist or chemist which also would be helpful in understanding how all these things are formed.

The art I'm making simultaneously mimics nature while I also try to make something unlike, I have ever seen before. There is amazing natural diversity in minerals and conglomerates that most people will never see in their natural settings because they are valued and mined by our species. I know what I make isn't to the tastes of everyone including lapidary artists, traditionalists, and rock collectors; but I can hypothetically guarantee that if this sculpture or something aesthetically similar occurred naturally out of the ground, it would inherently be worth a pretty penny. It would take several lifetimes to learn all there is to know in relation to geology, art, and art supplies.