

# THE POOR MAN ROCK THIN SECTION...

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Thin mineral sections can be very colorful when examined in polarized light, but making them can be a time consuming and exacting process. Take a mineral, cut it, and polish the cut face. Then cut a thin slice of it and glue it to a slide, polished side to the glass. Finally, polish the mounted mineral until it becomes so thin that light can shine right through. Easy enough... I guess... I'll have to try it one of these days.

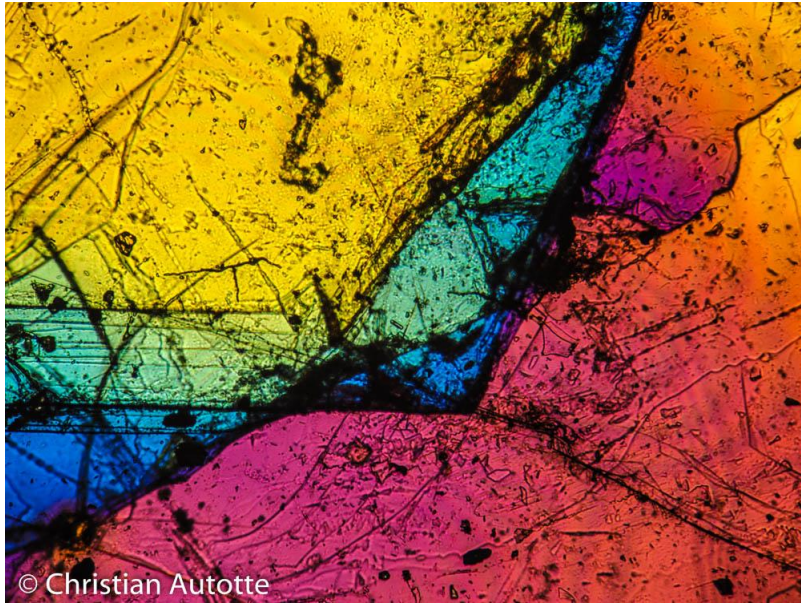
Meanwhile, there is a mineral that can provide hours of exploration and dozens of good pictures and require little or no preparation: mica.

It's naturally transparent, can be separated in thin slices with nothing more than an exacto knife or even with a pair of tweezers. The problem is to find some raw samples.

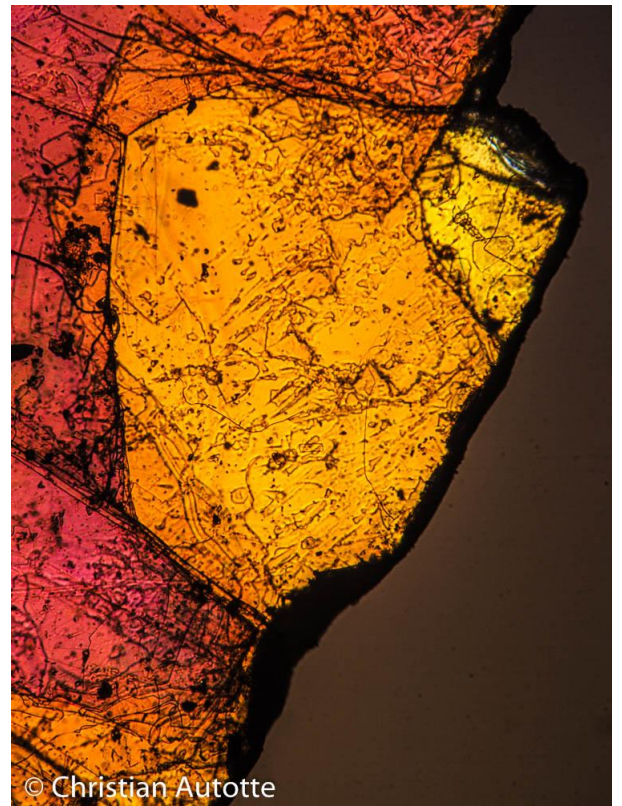
A few years ago I went on a fossil and mineral collecting expedition to the St-Lawrence North Shore with a few friends. Along the road, we spotted a shimmering rock face that made us stop in our track. On closer examination, we found some nice garnet, a semi-precious stone. But the shining part was made up mostly of mica, either bonded to other minerals, or in big sheets that could be peeled off. I managed to bring back a few small boxes full of both dark and clear sheets.



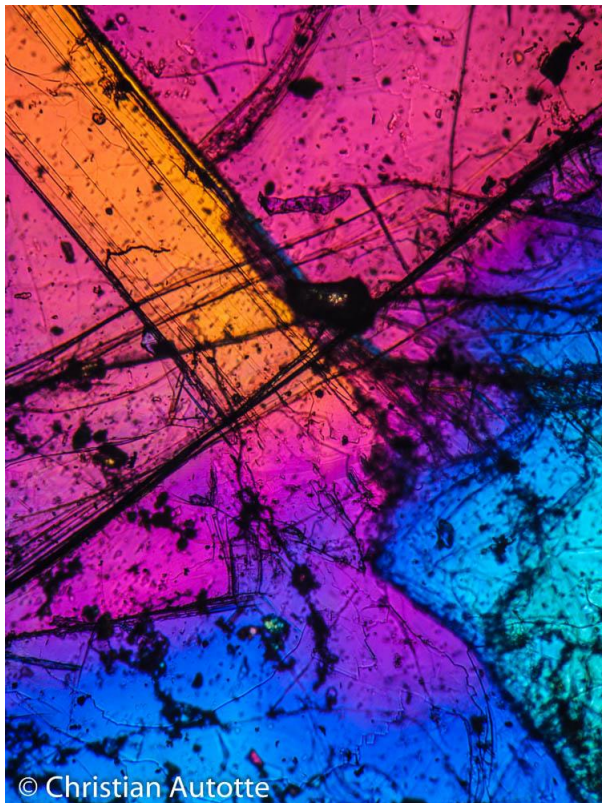




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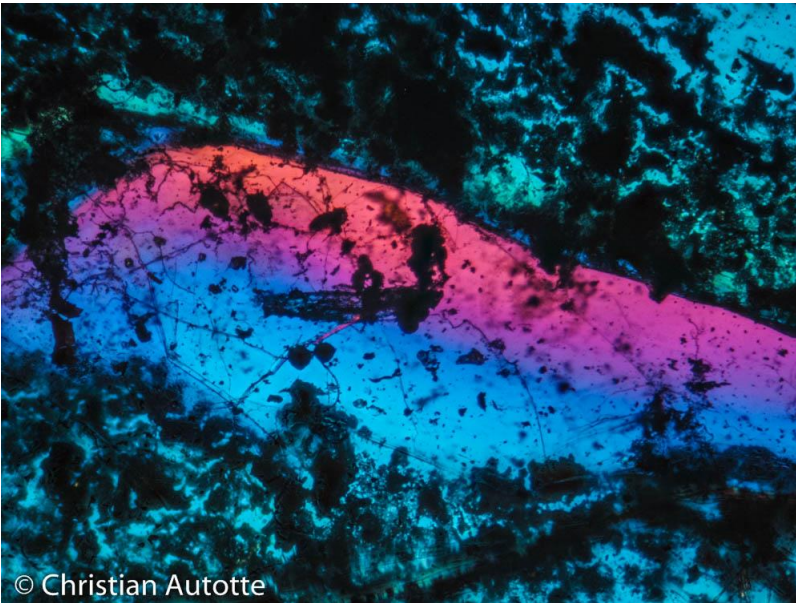
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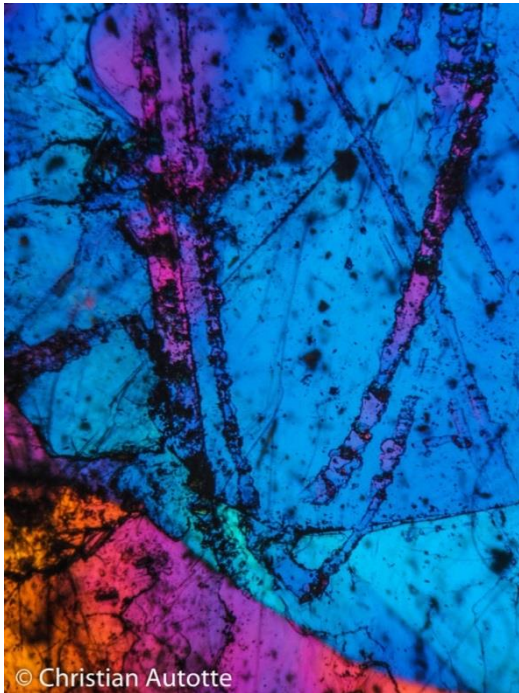
As with chemical crystals photographed in polarized light, photographic mica will require some patience. Some pieces will be too dense while some thin ones will not be birefringent enough to show any interesting colors. Some that show color may turn out to be too monochrome to be of interest, but those are rare; usually, moving around the sample one will find areas of purple, blue, yellow, and orange, often next to each other, creating interesting patterns.



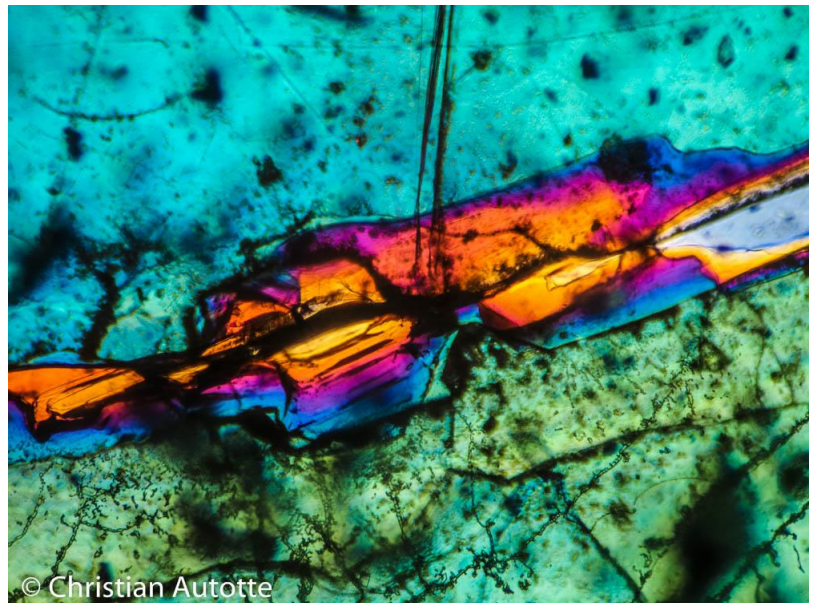


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Most of the pictures I took were shot at 40x, with a few at 70x. Higher magnifications seldom give me interesting results; the field of view becomes too narrow and more often than not ends up showing only a single color pattern. For these pictures I used my Wild M40 inverted that has a built-in polarizer. Often enough, I also had to play with both filters at the same time to bring out some interesting colors. I also tried using a waveplate but found that it didn't add much to the picture



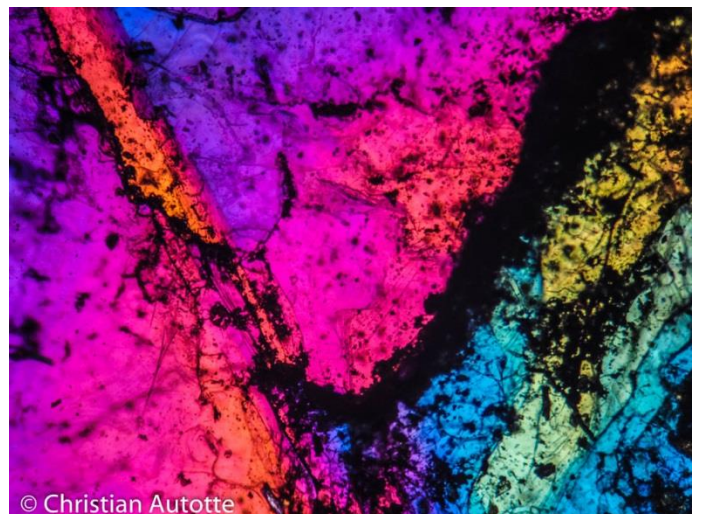
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Because the mica sheets are not permanently mounted they may show some variations in thickness that makes it impossible to keep everything as sharp as I'd like. In the worst cases, a few shots were taken and stacked using specialized software. Whether or not the image was stacked, it was edited for sharpness and vibrance in Lightroom in order to truly make those pictures as colorful as they can be.

The colorful portions of thin sections of rocks may very well be mica crystals. Mica can be found in rocks such as granite, shists, slate, muscovite, biotite, and andesite.

**Safety notice:** Please take care when handling mica as it can form small glass like flakes which may irritate the skin and should also be aware of not breathing them in and especially avoid getting in the eye when immediate medical attention is advised.

Outdoor handling may be advised with gloves, mask and eye protection. Not suitable for children to handle.

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