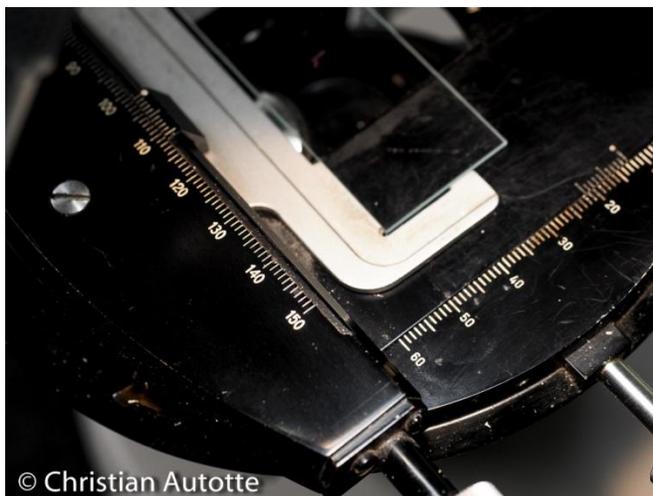


PROPER USE OF LOCATOR MARKINGS

All good microscopes have them, but most of the time we don't bother looking at it. It looks like a pair of rulers on the microscope stage. Technically, they are called "Graduated Locator Markings" and, as the name implies, they can be used to mark the location of specific items on a given slide with X-Y references. For instance, particularly interesting protozoa on a prepared slide could be found again and again if its position was noted as "11x112" in a database. I have a rather large slide collection and such details added to my database could be useful with some specimens. The paramecium pair shown here is on a slide that contains dozens of them. But most of the others are not as interesting. So if I want to see those two again, I simply prop the slide M9 and go to location 15x109 to find them again. There is no risk of mistaking the X for Y as one goes roughly from 0 to 55 and the other from 60 to 150. With small variations, it will be the same on all mechanical stages.



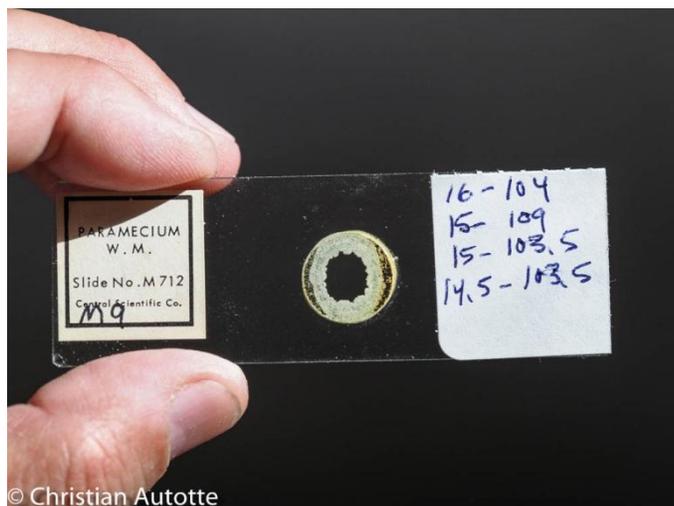
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Graduated Locator Markings on one of my microscopes.



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Paramecium, M9 – 15x109, 400x, Phase Contrast.

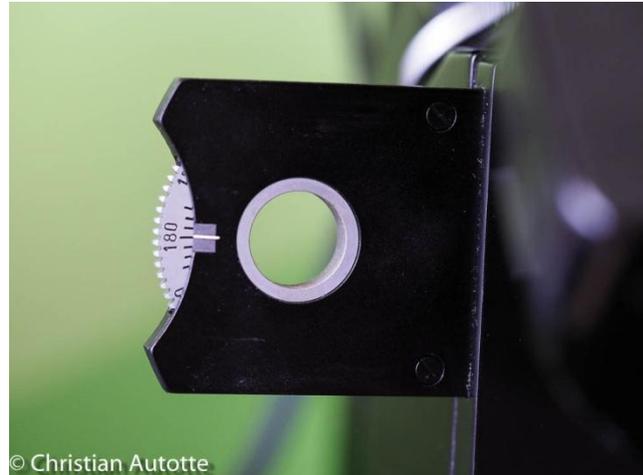


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As an alternative to write down the location in a database, it's easy to add the information directly on the slide. One could use a fine marker that can write on glass or, as seen here, use an adhesive tag and write down new specimen locations as they are found.

Unfortunately, there is a caveat to this whole principle: not all microscopes are created equal. In other words, a microscope collector like me (I currently have 10 microscopes...) will not be able to switch from one to the next with impunity. So while writing down the locations, it could also be useful to indicate *which* microscope was used; if necessary, more than one set of localisations could be written down, each associated with a specific microscope.

If the stage can also rotate, it may have a 360° markings. Other microscopes, like my Wild inverted M40, have a similar 360° wheel set on the side. These are linked to the polarizers found on these microscopes. Just like the locator markings, polarizer angles can be noted in order to repeat an angle that gave an interesting result.

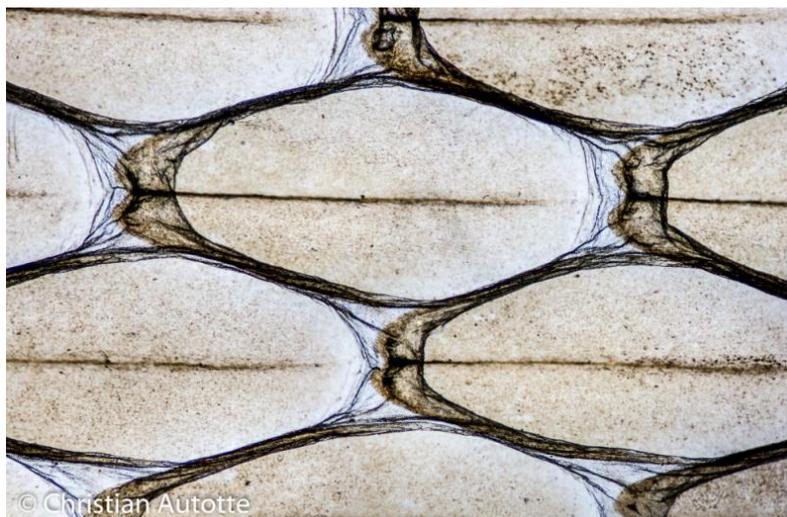


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Wild M40 polarizer wheel.

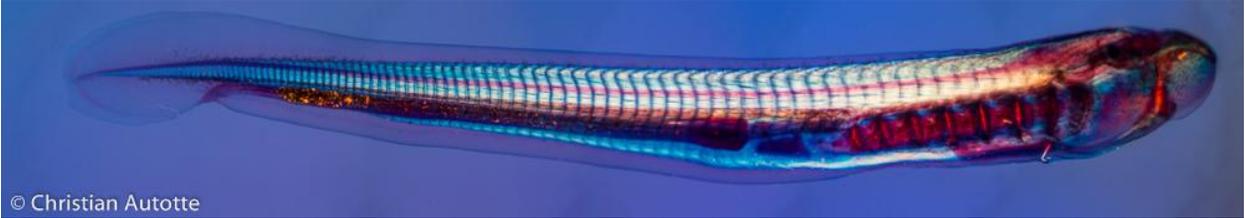
There is an added advantage to the locator markings. On more than one occasion, I had to shoot multiple pictures of a large specimen in order to create a mosaic showing it in its entirety. Usually, it's fairly easy to pick up something in the specimen as a reference when moving from one picture to the next. But other specimens are made up of repetitive patterns and if care is not taken the software that is used to assemble the images may get so confused as to give up altogether or create a useless jumble of disjointed images. That's where the locator marking finds another usefulness.

That kind of problem came up when I set up to photograph a garter snake skin. Even the lowest magnification would show less than a single scale. Moving left to right, then up and down for a second, then a third row, got to be very confusing... All I had to do was determine where I had to start and end, then by how much I had to move in either direction. In minutes, I had shot all the pictures needed, precisely aligned so that Photoshop had no problem making the composite image.



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Garter Snake Skin.



The larvae of a lamprey and a flatworm. Both were also too big to be photographed with a single frame. They are the result of a series of pictures assembled together. Using the Locator Markings on my microscope made it easy to shoot the series in even increments.

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