

Panoramas

by Martin Broen

I love shooting underwater landscapes and panoramas as they are particularly challenging from the lighting and stitching but amazing for their textures and impact. Indeed, I won both the Second Place in the Amateur Category as well as the Second Place in the open Category of the 2022 Epson Pano Awards, both with underwater images!

The Second place Open Category is of the caves of the Yucatan Peninsula, Mexico. the biggest underwater river system in the world, a never-ending labyrinth of tunnels and chambers decorated with incredible formations Venturing into the caves to capture their beauty is a fine balance of diving and photo skills and risk management. Shooting even minutes or hours away from the safe exit to surface, in pitch black conditions while you running out of gas.

This is a x 5 photo panorama stitch, Shoot with a Sony a7rIII and Canon 8-15mm at 1/12 sec handheld underwater, in zero ambient light, at ISO 6400 and f4.5. Using a BigBlue 15.000 lumen light

The Second place Amateur Category with a Photo of the Mobula Rays in Baja California, Mexico. Trying

to capture the extent of the Mubula Ray fever, and how they got frame by the sunrays penetrating the water. This is a x 5 photo panorama stitch, Shoot with a Sony a7rIII and Canon 8-15mm at 1/160 sec at f.7.1

While stitching panoramas using rectilinear lenses makes it much easier, In all those images I been using a 15mm Fisheye in a Full Frame (42mpx) camera.

The recommended overlap in 30%, so I have the “Rule of Thirds” grid active on my display and use that as a reference and go between that 33% and 50% overlap depending on how many recognizable features you have in the overlap for the software to recognize.

If you are trying to build a big image like the one of the flooded cave that is over 100 mpx, you shoot vertical frames doing a horizontal panorama. Or in the case of the image of the Cenote with the Hydrogen Sulfide cloud, is build of horizontal frames in a vertical panorama

And Lightroom has evolved to a point that is managing to stitch most of the Panoramas, Otherwise you are jumping to quite difficult dedicated software.

And is hit or miss. Some times will work perfectly with no edits require, some will never work, and some will require some adjustment in photoshop



Two Pro tips:

Don't move your camera using the center of your body as pivot, but instead use the optical center of the lens (non-parallax point) as center of rotation to avoid creating a parallax error in the photo

If you have a diver in Open Circuit in the scene, place her/him at the center of one of the multiple images

and not in the overlapping parts, as they will be moving between frames and the bubbles will make it difficult to stitch as well.

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Don't settle for 2nd best



Film - No Filter,
No White Balance



Digital - No Filter;
Manual White Balance



Digital - Magic Filter, Manual
White Balance

Digital cameras have opened up new possibilities to underwater photographers. For available light photography manual white balance is an invaluable tool for restoring colours. But when you use it without a filter you are not making the most of the technique. You're doing all the hard work without reaping the full rewards.

These three photos are all taken of the same wreck in the Red Sea. The left hand image was taken on slide film, which rendered the scene completely blue. The middle image is taken with a digital SLR without a filter, using manual white balance. The white balance has brought out some of the colour of the wreck, but it has also sucked all the blue out of the water behind the wreck, making it almost grey. The right hand image is taken with the same digital camera and lens, but this time using an original Magic Filter. The filter attenuates blue light meaning that the colours of the wreck are brought out and it stands out from the background water, which is recorded as an accurate blue.

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