The Novice Digital Photographer

by Jurgen and Anne Brauer

We are a father-daughter dive team – instant converts to the sea and to u/w digital photography. No more film! That was the biggest draw.

Eliminating film means eliminating the wait to see your pictures and to learn from your mistakes. Instant underwater picture review leads to an incredibly steep learning curve. And you are not limited by a 36-frame film since digital disks allow you to take well over a hundred high-resolution shots. You merely click, review; recompose, click again, review; change the lighting, click again, review; change your position, click once more; review; change the lens, click again, review ... you get

the idea. You also get essentially zero-wait, zero-cost developing and distribution across the Internet to friends and family worldwide.

In this article we describe our equipment and share some pictures from our first two digital outings, in Bonaire (December 2001) and Cozumel (April 2002).

Ours are no "pro" pictures at all, but as first-time u/w photographers, we are mighty pleased with the results.

We (i.e.Dad!) spent some real money in October 2001 for an Olympus C-3040Zoom digital camera, plus an Olympus-made PT-010 housing. The camera has a 3x optical zoom, and the housing comes with a diffuser that disperses the light from the camera's powerful internal strobe. The camera also has a macro-mode for close-up pictures, and the fifty dollar 128MB SmartMedia disk allows us to take more than 160 high-resolution (2048x1536=3.15MB) pictures, taken either as JPG or TIFF files.

The high-capacity, rechargeable batteries last for a two-tank jaunt, especially when the power-hungry camera screen is turned off in-between shots. Further, the camera has a video and audio mode (it is fun to hear your bubbles while you watch your video of a feeding sharptail eel). You can also switch from color to b/w photography, and you can have the thing run fully automatic or you may set aperture a/o shutter speed manually as you become more advanced in photography itself. Moreover, you can change film-speed, white-balance, strobe-intensity, picture resolution, and plenty of other things – all underwater! Indeed, the list of options is overwhelming at first. What you are buying is a sophisticated camera with expansion options, and most of the expansion modules are already built-in!

After buying the camera, we spent a few weekends taking land-based pictures to learn about photography, and of course to become familiar with the camera itself. Once in the water, of course we made the beginner's mistakes such as wrong lighting, ill-focused subject, and not following the rule-of-thirds. Solution: review and retake! Let us admit to one advantage we had up-front, however. By the time we dove Bonaire, we were closing in on a hundred dives each, meaning that we had a good feel for buoyancy control, surely a critical photography element. We also had a good feel for patience: creep up slowly to the critters. In short, it surely helped the photography to be budding u/w naturalists and to be comfortable in the water. If you are new to diving, your first pictures may not turn out quite as well, but if you are a reasonably experienced diver and are merely new to u/w

(01-Schoolmaster.jpg)

photography, we bet you will do just as well, be just as pleased, and impress your friends and colleagues just as much as we did.

(Let's look at a few sample pictures. Take the schoolmaster (01-Schoolmaster.jpg) shot. Of course we cut off the tail, and a "real" photographer is not supposed to do that. But the colors are exactly the way they looked underwater. The fish is nicely caught in the diagonal, and the background is blurred out to draw the eye even more to the fish. As a first-time shot, wouldn't you be pleased with it? Note that there is no lighting except for the internal flash, diffused through the housing.

(02-YellowtailSnapper.jpg)

Next, while Jurgen was hanging onto his compass to navigate the traverse in-between a double-reef formation at Bonaire's southwestern edge, Anne took the picture of a curious, lone Yellowtail Snapper (02-YellowtailSnapper.jpg) at about 40 or 50 feet depth. The focus is smack on the eye, the colors are natural against an almost black background, the flash reflects pleasingly off to the picture's lower left, and the snapper's lips are well-defined. As a first-time shot, we were very pleased with it.

Perhaps our single-best Bonaire shot is of an unconcerned Balloonfish (03-Balloonfish.jpg). We had run into a professional u/w photography couple (Renate and Roland Kraft) who, upon seeing our first pictures via the laptop we brought along, advised us to take an ordinary dive light for extra lighting, even during day dives. Ah, yes, of course! So we did. Anne held the light and followed the Balloonfish, and Jurgen caught it on digital "film." The colors are very natural, warm, and pleasing, as

(03-Balloonfish.jpg).

(04-ChristmastreeWorms.jpg)

(05-RedbandedShrimp.jpg)

they are on the assembly of Christmastree worms (04-ChristmastreeWorms.jpg).

What about u/w digital macro-photography? Simply push the "macro" button, settle down, compose your shot, and use the digital zoom as desired. Look at the Redbanded Shrimp picture that Anne took (05-RedbandedShrimp.jpg).

The external dive light (a Princeton Tec "Shockwave," using eight C-batteries) serves as a modeling light to allow the camera to focus, but it also makes the colors appear very natural and soft as compared to the harsh strobe-flashes one sometimes sees on u/w photographs. The detail on the shrimp's claw arms astonished us. Look closely at how well each hair on the claw arms is defined. We can't stress enough that these are in fact first-time pictures!

Flushed with pleasure, and in view of an upcoming drift and shore-dive week in Cozumel in April 2002, we next decided to order a macro-lens and a wide-angle lens, both of which mount on the housing via a screw-on adapter ring. We found wide-angle photography exciting but difficult, especially in the drift-dive conditions off Cozumel. One of the first wide-angle shots was of son (brother) Leon (06-LeonBrauer.jpg). Note the double-thirds composition (horizontal thirds and vertical thirds). At first we thought this looks like magazine-cover material! It's an unexpected shot and it's funny to boot, but the picture was rushed a bit and the focus is not on the head. Next time we'll get it right.

(06-LeonBrauer.jpg).

The Slate-Pencil Urchin (07-SlatePencilUrchin.jpg) and the Glasseye Snapper

(07-SlatePencilUrchin.jpg)

(08-GlasseyeSnapper.jpg)

(08-GlasseyeSnapper.jpg) are, we believe, better than what the gurus themselves offer (Humann/DeLoach, Reef Set, 2002). No backscatter, complete clarity, the picture frame fully filled, and every detail of the animals well defined. Even the pea-sized juvenile Smooth Trunkfish (09-Juvenile Smooth Trunkfish.jpg) is well caught. Truth be told, though: we used Adobe Photoshop to crop the picture, then used autocontrast and fillflash, and adjusted the brightness. (But how many published film-based pictures are not adjusted in some way as well?)

(09-Juvenile Smooth Trunkfish.jpg)

As regards u/w night photography, we managed a few good shots as well. The octopus (10-Octopus.jpg) moves along the light diagonal

(10-Octopus.jpg)

(11-Balloonfish.jpg)

cone, and the balloonfish (11-Balloonfish.jpg) appears to float in the star-lit heavens as the normally irksome backscatter is here used to good effect.

Of course, the camera is perfectly suitable for land use as well. After a morning dive, we noted a rare natural phenomenon, a rainbow-halo around the sun and caught it as well (12-HaloSun.jpg). Or, looking out across Cozumel's international pier, you can enjoy a simple sunset in which the clouds "cradle" the sun to rest (13-Sunset.jpg).

(12-HaloSun.jpg)

The camera, housing, disks, travel pouch, extra lenses, and adapter ring cost about $1700. Camera prices are dropping, while features and powers increase. Ask any film-based photographer to add up the cost of camera, accessories, film, mailing, and developing, and you'll find that even though the digital up-front cost is higher, it'll soon come out cheaper and faster.

(13-Sunset.jpg).

(14-Blenny.jpg)

Well, then, aren't there any draw-backs to digital u/w photography? Yes, one in particular: on our camera there's about a one-second shutter delay. To capture nimble fish, you either need to anticipate where they'll be a second after you press the shutter or you need to pan the camera along with the fish, hoping that they'll stay in focus. We photographed tiny blennies, but not in action (14-Blenny.jpg)! This is a major drawback indeed, but one that will lessen over time as digital cameras advance technologically. Remember, we are talking about the private pleasures of amateur u/w photography, not about making a living of seeing your stuff published in all the world's scuba diving magazines.

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Some of their Bonaire and Cozumel pictures are posted at http://www.aug.edu/~sbajmb/Best-of-Bonaire-2001-Web/index.htm http://www.aug.edu/~sbajmb/Best-of-Cozumel-2002-Web/index.htm Their next trip is to the Azores.