Canon 7D, Aquatica A7D and Fibre Optics

by Glenn Lawyer

Gear lust. The enemy of dive budgets everywhere. A new dSLR and housing easily cost more than an exotic dive vacation. But double the AF, double the ISO, double the frame rate, double the processors, double the rear display, and OMG video! I didn't need the dpreview.com review. Even my amateur hands could tell that Canon's 7D is a formidable beast.

A new camera means a new housing. The choice is now more than brand (Aquatica, see Bruce Yate's review in UWP 49 to know why). The new question is electric or optical strobe control. Optical cords are lighter yet more rugged, don't flood, easier to connect, and support TTL. On the other hand, "better the devil we know." Optics rely on the camera's pop-up flash, which heats the housing and drains the battery. Low batteries mean slow recycle times. Plus, TTL is for lazy photographers. Real pros prefer TTB (through the brain). Right?

It was a pro who convinced me. Mark Webster said that optics are the future, a sentiment echoed by Peter Rowlands. Optics it would be.

My fears about the recycle time weren't eased, however, when Backscatter posted their review of the Aquatica/7D combination (http://www.backscatter.com/learn/article/article.php?ID=66) two days after I gave them my order. Berkley White timed the Canon's pop-up recycle time at 3 seconds.

I did my own test. With the battery under 10% remaining charge, lens cap on, E-TTL took 3-4 seconds to recycle. Rats! The 7D, however, offers manual flash control. I set the flash to 1/128th power and triggered the low-speed autodrive. Three frames per second, all with flash. High-speed autodrive. Faster than the low-speed, but slower than its rated 8 frames/second. Call it 4 frames/second. In comparison, my Inons recycle in 1.6 seconds. Conclusion? TTL is slow when the battery is low, but TTB can trigger the strobes 5 times faster than they recycle. Another fear demolished.

The experiment drove home a further point. Modern cameras offer fantastic lighting control. See, for example, Don Silcock's article on the Nikon Creativive Lighting System (UWP issue 52). Fiber optics echo anything the pop-up flash does to your big guns. The 7D offers flash exposure lock (the tool Don tested so thouroughly in his article) and +/-3 stops flash exposure compensation.

One anxiety remained. Would Aquatica get the unit produced, and would Backscatter get it shipped before I left on my trip? Backscatter understood the concern, and sent me near-daily emails on the current status (Thanks, Dave!). In the mean time, I was setting the 7D's custom modes to my underwater preferences. Autofocus on the star button instead of the shutter release, custom white balance to match my strobes, pictures saved as raw... all those small settings and changes you mean to make before you put your camera in the housing.

A badly dented dive budget had dictated a Ryan Air flight to Lanzarote. Housing in hand (backpack, actually) and smiles all around we jetted off for a week of surf and sun. Sun turned out to be in short supply. We arrived at the start of Lanzarote's one rainy week of the year. Surf there was aplenty—winds were gusting up to 70 km/hour most of the week. Only one location was divable. Charco del Palo is a sheltered

Charco del Palo. Diveable in all weather. f16.0 at 1/250 and ISO 400 shot with shutter speed priority. Tokina 10-17 at 17mm

cove lying 3/4 of the way up the east side. On the plus side, if you are only going to dive one spot all week, this would be the place. Lava flows have created many caves and crevasses to explore. Spurs of lava provide bountiful habitat for wall- and hole-loving critters, interspaced by sand beds where angel sharks and rays come to feed and rest. No matter if you have macro or wide angle, you are guaranteed the wrong lens for half the shots you want to take.

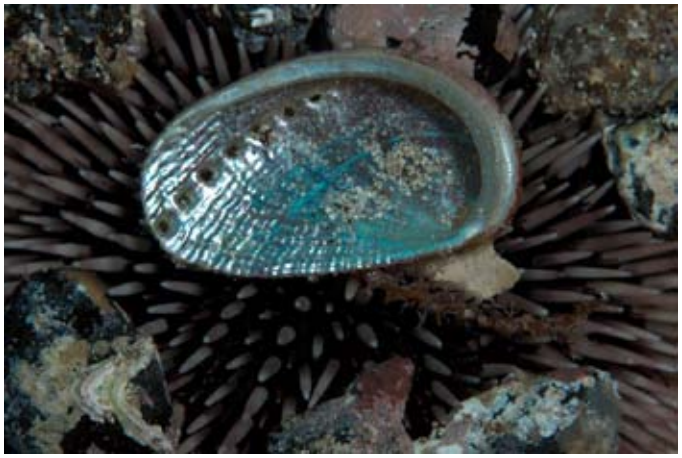
It is difficult to review fiber optics and TTL. Neither are new; both are wonderful. They are, however, new to me. TTL allowed me to get images in half the time that TTB would have taken, or with half the effort. For many subjects, like the light-shy shrimp hiding in the grottos, or the skittish stingrays, TTL made the difference. And the fiber optics? I hardly thought about them. They were just there, and they just worked. No fidgity set-up, no wondering if a grain of sand or loose hair was going to flood a bulkhead or ruin a strobe, no remembering that Nikonos connections need to be

Canary stingrays don't like being flashed. f11.3 at 1/60 and ISO 100 shot with manual exposure. Canon 100mm macro

held upside down when disconnecting...

Some people complain that TTL doesn't give them proper exposure control. No longer true. If flash exposure compensation isn't enough, flash exposure lock (FEL) allows spot-metering TTL exposure. FEL solves another downside to TTL. TTL introduces shutter delay. With FEL, the pre-flash and metering happen when you press the FEL button. Shutter release is instant. I used it on some white sand gobies. I reasoned that a highly reflective white fish sitting on white sand could confuse the meter. Also, the fish continuously raises and lowers it dorsal fin. I needed instant shutter response to time the shot.

The one downside to FEL with the Aquatica housing is that the FEL button is about the only control which you cannot reach with your hands on the handles. Otherwise the housing is a dream. I can echo the enthusiasm in the two reviews referenced earlier, and am looking forward to a long and happy



FEL allowed me to spot-meter the abalone shell which the urchin was using to hide itself with f16.0 at 1/180 and ISO 160 shot with manual exposure Canon 100mm macro

f19.0 at 1/180 and ISO 100 shot with manual exposure, Canon 100mm macro

f19.0 at 1/125 and ISO 160 shot with manual exposure, Canon 100mm macro

(Left to right) Laurent , Peter and Simon, from Calipso Diving in Costa Teguise, Lanzarote

relationship with my new rig. This also means that a well-loved 20D + housing are now for sale (see the accomponing ad or the classifieds). I'll include two free electric sync cords if you buy the whole system. Don't worry, I won't be needing them.

All diving was with Calipso Diving in Costa Teguise. Peter, Simon, and Laurent arranged things as best as possible to allow me to dive independently. In fact, three of the six dives I managed during my stay were private dives. These aren't exactly moneymakers for the dive center. It helped that I had called ahead to discuss my requirements with them, and that it was low season.

Two people need to be acknowledged. First is Ann-Charlotte, my glorious, loving wife. She doesn't understand why diving means so much to me, but she accepts and supports it. Thank you, sweetheart! Second, I wouldn't have received the housing in time without assistance from my mom, who is also glorious, loving, and supporting. What can I say? I'm a lucky guy.

Glenn Lawyer

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