



photo & video

Coral,
Honduras.
Image
specs:
Canon 7D,
Canon EF-S
10-22mm,
f/14, 1/125s

Text and photos by Rico Besserdich

People like color. Is any photographer not familiar with the delighted exclamation of the viewer: “Oh, this is so colorful”? This point also applies to underwater photography; the task of creating colorful underwater pictures is the goal (and passion, in some cases) of many. But then there is also good ol’ black and white photography. Yes, even underwater!

Some readers may surely be shaking their heads now, wondering what is the point of depicting a colorful underwater scene, or a sea creature, in black and white? While others might be quietly and stealthily whispering things about “fine art,” (since black and white photography is, after all, the only true “master’s” skill, isn’t it?). The absence of “nice colors” in an image must be art, automatically, right? Well... no, not really, but a general potential does exist. It all depends on the photographer.

If Hannibal Goodwin—the American who invented roll film on a celluloid base, patented in 1889—had had the opportunity at the time to produce color film for still photography, he certainly would have done it with joy, and dismissed black and



white photography as “colorless and boring.” But for the time being, the art form stayed with gray tones, even in the early days of underwater photography.

By definition, black and white photog-

raphy is a “special” category of photography; the phrase “black and white photography” arose only after the invention of color photography. Previously, we spoke simply of “photography,” which

depicted the nuances of color brightness found in reality, in achromatic grayscale gradations, including the extreme values of black and white. Such photographs were originally called grayscale photos.

Gray. Achromatic. Colorless. That does not sound so exciting on first impression, does it? Gray weather, gray future, gray hair... the list of gray things as expressions of something negative is long. Or





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Lionfish (right), Na'Ama Bay, Red Sea, Egypt. Image specs: Canon 40D, Tokina 10-17mm, f/10, 1/125s

Freediver (far right), Bodrum, Turkey. Image specs: Canon 40D, Canon EF-S 10-22mm, f/13, 1/200s. Model: Didem Kara

to quote Goethe's Mephisto: "All theory, dear friend, is gray but the golden tree of life springs ever green."

So we better leave the gray zone now and walk towards the light! Because as photogra-



phers, we do first and foremost one thing: We paint with light. This is photography.

Shades of gray

Gray as a mouse? Well, there is also anthracite, ash-gray, slate gray, smoky gray, field gray, concrete gray, Payne's gray, dove gray and silver gray—all well-known gray tone expressions. And then, of course, there is black and white.

Various shades of gray are defined by their brightness. So, now we are talking about light. Awesome! Our main tool of photographic creativity enters the scene! Let's work with it!

Moray eel, Hurghada, Red Sea, Egypt. Image specs: Canon 7D, Canon EF-S 10-22mm, f/16, 1/250s.

To create an underwater photo in black and white, there are several possible methods:

1. You can shoot with an analog camera and still rely on the excellent quality of genuine black and white films such as those made by Kodak, Agfa and Fuji.
2. You can shoot with an analog camera, but use color film and convert your color images using software into black and white (after scanning).
3. You can shoot with a digital camera and select the "Black & White" option under "Picture Style" in the menu ("Picture Style" may be listed as "Creative Style" in some camera models).
4. You can shoot with a digital camera in color and convert the captured color image via software (like Adobe Lightroom or Photoshop) into a black and white picture.

Digital vs "pure" analog

Nowadays, the majority of underwater photographers shoot their images with digital cameras. It must be noted, however, that "pure" black and white photography does not exist with digital cameras underwater in this form. Image sensors in digital cameras save all the measured values and visual information when capturing an image, thus also all color values as well.

In the default settings of the "Black & White" option in the camera menu, the camera's own software converts the recorded (color) image into a black and white version. It may sound strange to talk about image manipulation occurring here, but in a way, that is exactly what is happening, inside your camera.

If we use a DSLR camera and shoot our photos, preferably in RAW or DNG format (we should!), and if our camera was set to the Black & White picture style, we



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may find ourselves surprised when viewing and further processing the shots in our RAW converter (e.g. Adobe Camera RAW). The supposedly black and white pictures suddenly appear in color. That is because the camera's sensor stored all the values, including all colors.

It is natural, and basically just fine, to convert a color photograph later, using software, to black and white. In fact, this is the normal procedure most commonly used today. But one still can-

not quite call it "pure" black and white photography. Pure black and white photography comes from "pure" black and white analog film. Everything else is more or less already "manipulated"—yet, not to be judged, of course.

Pricey exceptions

But there are (as always) exceptions! Let's check out the LEICA M Monochrome camera, which comes with a pure black and white image sensor. For a piece of cake costing around US\$7,500





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Near the shore. Bodrum, Turkey (right). Image specs: Canon 7D, Sigma 10-20mm, f/11, 1/125s

Borderlands. Kas, Turkey (below). Image specs: Canon 40D, Sigma 10-20mm, f/5.6, 1/60s



(without lens, just the body), it could be ours. Unfortunately, based on the author's knowledge, no underwater housing for this camera exists at this time.

With their Achromatic digital back, PHASE ONE offers "pure" black and white photography for various medium-format digital cameras. Ready for some more gray hairs? Well, the Achromatic is US\$41,000... and that is just for the digital back only. A Hasselblad medium format camera with that black and white digital back from PHASE ONE, plus an underwater housing and a proper lens, would turn the future of our bank accounts gray. Dark gray. It would be somewhere around US\$75,000.

Yes, pure digital black and white underwater photography is costly.

Back to basics

But let's stick with "normal" underwater photographers (in terms of black and white photography), leave the gray zone, and walk along the middle path.

For black and white underwater photography, we will need to look at things with different eyes. "Reading the light" is the key here and, in doing so, brings us back to the



core of photography itself. Light, shadows and textures are excellent design elements of black and white photography. During a dive with the camera AND with black and white photography in mind, it might be a good idea to look out for the following:

1. How is the light in general (i.e. time of day, position of the sun, are there clouds or no clouds, light rays, or reflections)?
2. Are there any interesting shapes and structures?

Interesting shapes such as fishes (preferably those that are not too small), wrecks of all kinds as well as branches, tree trunks or divers swimming around. And, of course, there is much more to discover! Be on the lookout for interesting shapes or forms. Even the simplest thing underwater could become a great subject for a beautiful black and white underwater photograph. It is just up to your photographic eye to see it.

Once you have spotted an interesting subject, take a closer look. What about the structure? Wrecks often come (after a long rest on the seabed) with fine structures, due to the corrosion of the metal, which can boost the quality, depth and contrast of a black and white photograph quite a bit. Even the bark of a tree in a local lake or just a rippled sandy patch in

shallow water near the beach can act as a nice picture element too. Structure is very important. Always look close, twice, and take your time. It's worth it.

3. Shadows. Where there is light, there are shadows too, and they are also important for a successful black and white picture. How do the shadows fall? What is the overall impression of the underwater scene, in terms of the interplay of light and shadow? Are the shadows deep black, without any details in them (not so ideal); or do the darks, even in the shadow itself, have details still visible (which is even better)?

The photographic eye

The "photographic eye" is not available for sale in a shop, but it is something one can learn and

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The Dakota. Kas, Turkey. Image specs: Canon 40D, Sigma 10-20mm, f/8, 1/160s, ISO 800

something that can be taught. The point here is to take the necessary time to look at the environment (and not just underwater), concentrate, and have the picture already in your mind before pressing the shutter button.

For a closer look, and to imagine how the envisaged scenario would probably look as a black and white image, it is necessary to develop a certain sensitivity. Colors, as a stylistic device, fall away and our artistic sense should be focused on light, shadows, contrasts, shapes and textures. Black and white photography underwater is like the "calm sound of music." If the necessary sensitivity for light is used, a powerful tool to represent underwater scenes and animals in a new way is placed in your hands. And with luck (and the goodwill of your audience), it may even become "art."

As I said before: Most underwater photographers who are interested in black and white photography take their images first in color, then later convert them to black and white, using image editing software.

It must be said that a weak color image (incorrectly exposed, low contrast, blurred, inadequately or not well composed, or simply senseless) certainly will not get better when converted to black and white. To then declare such an image as "art" just because it is black and white is really not a good idea.

Art comes from ability and, if we understand photography as an art form, black and white photography is the basis of everything and the archetype of this art form. It is not the Holy Grail, but it deserves our respect as photographers.

Tips and tricks

Here are some tips for underwater photography in black and white:

1. Since there is no need to restore colors by using an underwater strobe or other light sources, it often works pretty well to take the photos with ambient light. When the sun is high, clear and bright in the sky, even at 20 (or more) meters of depth, creating beautiful black and white photos is possible. Depending on depth and light conditions, a higher ISO setting and, in some cases, even a tripod might come in handy.

2. Basically, there is nothing to be said against underwater macro photography in black and white, if the light is beautiful and your chosen "model" has interesting shapes and/or structures. But its true

Girl in the pool. Image specs: Canon 40D, Sigma 10-20mm, f/8, 1/160s



Lionfish, Ras Mohammed, Red Sea, Egypt. Image specs: Canon 7D, Canon EF-S 60mm, f/2.8, 1/320s



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Egypt. Image
specs: Canon
7D, Sigma
10-20mm, f/9,
1/125s, ISO 400

strengths can be seen in the wide-angle photography. Wrecks of all kinds are always great subjects, but any underwater landscape is likely to produce a nice black and white light mood, photographically. Even relatively "boring" dive waters can be helped, taken in with a new and appealing photographic presence, when shot in black and white.

3. It simply has to be said again: light, shadow, shapes and structures. Try to direct your attention to these factors. You will be sur-



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prised how many new photographic options will come to you. Just try to think in black and white.

4. Make sure that the shadows still show some details in them. Seen photographically, 100% black is not quite ideal. The same goes for white: Burned out lights (sun) in 100% white should be avoided, if possible. Of course, there are exceptions and some brave ex-

Below the surface,
Bodrum, Turkey. Image
specs: Canon 40D, Canon
EF-S 10-22mm, f/8, 1/125s.
Model: Chris Mo

perimentation has often brought very interesting results. Have fun! Nothing should stop you!

5. Also, always check the histogram when shooting. If necessary, adjust your exposure. Balanced contrasts are important here. An ideal histogram represents an evenly ascending and descending "hill" shape that is neither on the left side (complete black with no sign) nor "triggers" on the right side (burned out lights, full white) of the histogram. Unless, of course, you have something very special in mind (as in the so-called High Key or Low Key effects). The histogram does not speak ultimate law. It only provides help in setting or adjusting your image's exposure.

6. For ambient light photography,

the hours from 9 a.m. to 2 p.m. are a good time to shoot. In this time window, there is also a chance to capture sun rays beautifully. The light itself is rather "hard" during these hours, though. A softer light then requires a lower position of the sun in the sky, i.e. early in the morning or late in the afternoon. Either way, it is good advice to check the light conditions (at the dive site) beforehand. Having the sun in the most ideal position is of no use when the sun is obscured by tall trees, buildings, dive boats, etc. Ideal times are also often dependent on the characteristics of the dive site and, of course, on what lighting effect you want to achieve.

7. Too much shade (dark black) can be brightened with a strobe. Try to see your strobe as a "shad-

ow brightener" and not as an ultimate lighting master. It is your duty (and not your strobe's) to read the (ambient) light and use its natural beauty to create an awesome photo.

8. Underwater landscapes and wrecks work great in black and white photographs when shooting panorama images.

9. It would be naive to think that black and white photography is more "forgiving" than color photography. In fact, the opposite is the case. A colorful fish or coral, as in a color image, can often "hide" disadvantages present in the image; people may say: "Oh, what nice colors!" and quickly forget that the picture is a little blurry or not composed well. In a black





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Soft coral, Sharm El Sheikh, Red Sea, Egypt. Image specs: Canon 7D, Canon EF-S 60mm, f/2.8, 1/200s

and white image, this escape route does not exist.

10. Training your photographic eye does not require you to go diving. Even while sitting on your couch or walking the dog, you can look around and see how the light plays with subjects or landscapes. Try to open your senses. The key lies not in your equipment, but in yourself. Shoot as many photos as you can. When shooting in black and white, remember: Your camera (DSLR) stores the color version anyway. This is ideal for comparison later on. If you switch

between color and black and white, and if you like the black and white version more, ask yourself the "why." Why does the black and white version look better to you? Take your time and think well. Soon, you will find out that it is all about light, shadows, shapes and structures.

Final thoughts

Light and shadow. "Reading" the light... and painting with light. Photography. In black and white, photography is reduced to its original form and original expression—a beautiful instrument of creative

underwater photography! While shooting underwater images in black and white is fun, it is also fun and very inspirational to check out the beautiful black and white works of other photographers—Ernie Brooks, Christian Vizl and Amanda Cotton, just to name a few. By the way, some black and white photographers have never switched to digital. ■

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