



Heavy Metal

by Alexander Mustard

My background is as a marine biologist, so you might be surprised to hear that I am a lover of wreck photography. In my early days, I viewed wreck dives as simply another location to shoot marine life. The hard surfaces were always great places to find egg laying spawners! But down the years I have learned to appreciate the diverse challenges and opportunities that metal offers for underwater photography. I really feel that photographers who shun wrecks deprive themselves not only of wreck images for their portfolios, but also some of the most valuable lessons in controlling light underwater.

Few subjects teach us as much about underwater light as wrecks: their size and immobility mean that we have to read and wait for ambient light to shoot different features of a wreck and to produce images with different atmospheres, whether in colour or black and white. You can never take all the shots of a wreck on one dive at one time of day. Their dark interiors demand precise strobe control to illuminate features, or when relying on ambient light to pick out a subject, we must be masters of controlling dynamic range with our compositions and managing low light exposures. We can raise the stakes further by including divers in our shots or photographing marine life within the wreck environment. Or as I wrote about recently in UWP 57, they can be excellent locations to work with off-camera strobes.

Wrecks offer so many opportunities for images, but this was really brought home to me



Photo by Pam Murph. Nikon D90 + 10-17mm @ 10mm, Magic filter, no flash. Adding people to wreck shots often greatly benefits images. Models don't always have to be precision posed. Divers enjoy diving and we don't need to be afraid of showing it in our images. Ocean Frontiers staff member Nick Giles took very little persuasion to strike this pose.

recently with the new USS Kittiwake wreck in the Cayman Islands. Each January, I run my annual photo workshop in Grand Cayman (I am up to 10 instalments now), but the addition of this new dive site has been a revelation. I was simply amazed by the sheer diversity of images produced by the group of photographers over the course of just a couple of dives on the Kittiwake, and the unique challenges that the wreck provided, which is ideal for the learning experience on a workshop.

In this article I want to review some of the classic types of wreck photos and the techniques needed to shoot them, illustrating the article with shots taken by the photographers during the workshop (note these images are just from a couple



Flash or filter? The top image (taken by Alex Mustard) uses flash, which lights the bow, but quickly falls away with distance, Nikon D700 + 16mm. 2 x Subtronic Alpha Pro flashes. 1/160th @ f/8. To my eye the filter shot (taken by Paul Colley) is more pleasing with colour penetrating further onto the wreck and with a strong blue water colour, Nikon D300 + 10-17mm @ 10mm, Magic filter, no flash. 1/60th @ f/8.

of the dives we did during the workshop and there are many more I don't have space to show).

First up, size matters when it comes to wreck photography, which means strapping on our widest lens and going for the big shot, showing as much recognisable ship as the visibility allows. Artists always paint wrecks as a whole ship sitting on the seabed amidst the blue. And this is how non-divers tend to imagine wrecks too, so photos that are consistent with these expectations are naturally appealing. If the wreck is shorter than the vis we can shoot the whole thing, but for bigger ships we must focus our efforts on large recognisable features, such as the bow, the stern, the bridge, the props, etc.

Shooting such expanses of superstructure means that our subject will usually be too large to illuminate with strobes so we must turn them off and work with the ambient light. We have three choices: either leave the images with a blue or green cast for the maximum atmosphere, convert them to black and white for the most contrast, or use manual white balance and filters to bring out the colours of the wreckage. The Magic Filter was originally developed to shoot a wreck image, after I was disappointed with what manual white balance alone could achieve (leaving me with a washed out blue background). So it is often a perfect tool for getting colour on the wreck and keeping an atmospheric water colour.

In low visibility, we can inject the most impact by shooting across the light, boosting the contrast and showing the wreckage mainly in silhouette. Working these angles, against the sun, tends to also work well for black and white images, allowing us to base the image around strong shape and form. The best example of this is David Doubilet's



Photo by Suzy Walker. Nikon D300 + 10-17mm @ 10mm. Magic Filter, no flash. 1/50th @ f/11. One of the best ways to shoot a wreck is the classic big shot – showing a large recognisable view of the ship on the seafloor. Here the chain provides an excellent visual link between foreground and the stern of the Kittiwake in the background.

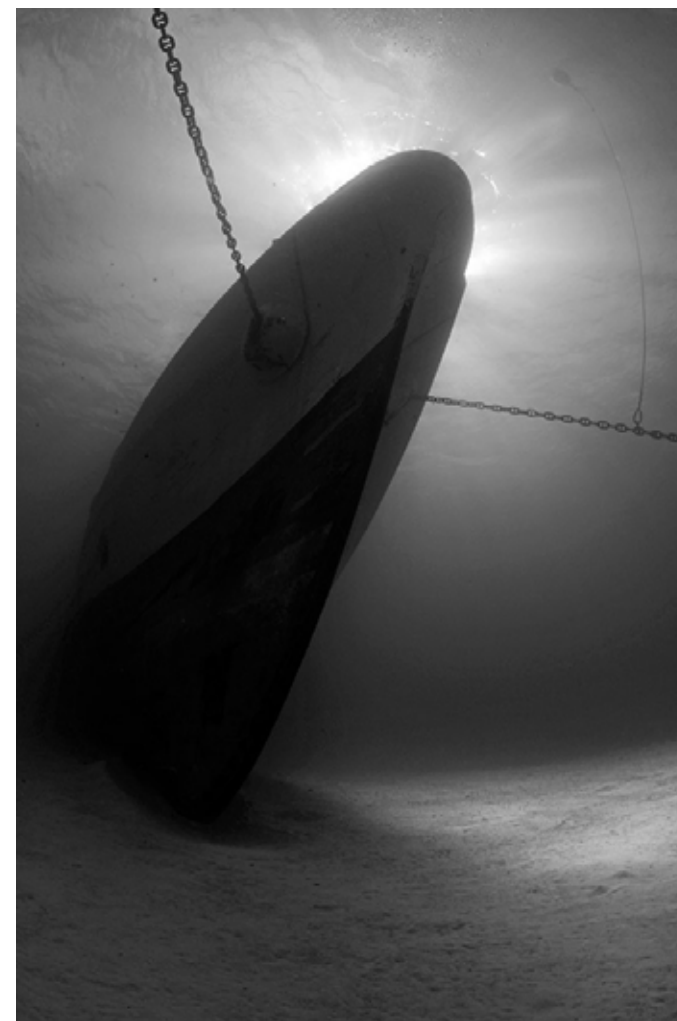


Photo by Victor Zucker. Nikon D300 + 10-17mm @ 10mm. No filter, no flash. 1/50th @ f/11. Black and white shots often work well shot against the light, creating strong shapes in shadow and light. The strong visual shape of the silhouetted bow makes a very strong composition on the diagonal.

fabulous photo of the Keith Tibbetts wreck in Cayman Brac, where the silhouetted hull of the wreck contrasts beautifully with the details on the deck.

Alternatively, if we want to maximise the detail visible in a wreck photo, we need to shoot with the light coming over our shoulder, so the sun can illuminate all the details for us. These angles work best for colour shots with filters and can be very powerful. The classic Giannis D photos from the Red Sea that we use in the Magic Filters advert are taken like this.

I know it is stating the obvious, but unlike strobes, the sun doesn't move when we move the camera, so on any wreck we have to dive at different times during the day to have the sun illuminate or silhouette the features we are interested in. On the Kittiwake, for example, morning dives provide excellent illumination on the stern, while afternoon dives are better for the bow, which is lit when shot from the port side and silhouette from starboard at this time of day.

In deeper, darker, murkier conditions the direction of light is less important as it becomes more diffuse, giving us more freedom to shoot more angles at any given time. However, as light levels drop, we may require a tripod to get sharp images at the extended exposure times. Leigh Bishop's excellent deep-water wreck shots are great examples of this technique. In intermediate conditions, an alternative to a tripod is it to place or brace the camera on a flat surface of the wreck to allow us to prolong those exposures.

Of course a portfolio of only big exterior shots would soon bore, so on the right wrecks we should also work the interiors. But working below deck throws up a whole new set of challenges. The main



choice is strobe or no strobe. Strobes will light up all the features, but when used on camera do not provide as much atmosphere as available light only images. However, only certain interior features are naturally illuminated by ambient light beams entering the wreck and only at certain times of day. So both techniques have their place.

Starting with strobes, one of the big differences



(Above) Photo by Kathryn Arant. Nikon D200 + 10-17mm @ 10mm, Magic filter, no flash. 1/160th @ f/5.6. As filters provide us with colour without the need for flash, we can produce shots with dark foregrounds, framing a colourful view of the subject. The classic frame within a frame is always a powerful image.

(Left) Photo by Kay Hartley-Mills. Nikon D300 + 10-17mm @ 10mm, Magic filter, no flash. 1/45th @ f/4. We can create the best atmosphere inside wrecks (and caverns for that matter) by shooting without flash. Position yourself in the shadows and shoot out towards the light, framing the lit features with a darker foreground.

when shooting wide angle inside a wreck compared with the reef is our foreground illumination is entirely reliant on our strobes. If we don't light it, it will be black. Getting our strobe lighting quality right makes the difference between average and standout shots. The common mistake is to position



Photo by Alex Mustard. Nikon D700 + 16-35mm @ 16mm, 2 x Subtronic Alpha Pros. 1/25th @ f/16. I selected a rectilinear lens to avoid getting bendy walls in this interior shot of Ocean Frontiers staff member Debbie Wragg and Mr Rix (the compressor). The long exposure allowed the light entering the wreck to add depth to the image.

our strobes in the same way we use them on the reef. Much better is to push them up into rabbit ears, so that they create a pool of light in front of the lens, which will evenly illuminate the subject from close to the camera to deeper into the frame. Check out Julian Cohen's article on this technique in UWP 57.

Next, to give the image more depth, we have to lengthen the exposure to burn in some ambient

light in the background. Tucked away deep in the bowels of the ship this can mean a long exposure, but since there is no ambient light on the subject you will be surprised how long you can push the exposure and still get a sharp image courtesy of the flash.

Another problem in the darkness is focusing and if we use a focus light to help, the beam will show up in the image because of the long exposure (or high ISO). When I shoot interiors



Photo by Ellary Wray. Nikon D7000 + 10-17mm @ 10mm, Magic filter, no flash. Deeper inside the wreck we need to use long exposures and this means we need to brace the camera against the structure. We may need to take a number of frames to be sure of a sharp one. Look for beams of light penetrating and try to find a subject that they are illuminating.

on a dark wreck, I focus once at the start of the dive and lock the focus in manual. It is important to set the focus in the water otherwise it will not account for the optical effect of the dome port.

Strobes are very valuable, but we often get the best atmosphere in wreck images when we use available light only. These photos are easy to take, but hard to get right. The key is usually to make sure that your subject,

whatever is lit up by the light entering the wreck, is the brightest object in the frame. The trick to achieving this is very careful framing. The best approach is to position yourself in the dark and shoot towards the light, while avoiding getting any highlights into your frame, from the openings that are letting the light in. If we get a bright highlight that is not the subject it will distract the viewer's eye and also spoil the atmosphere of the shot.



(Left) Photo by Tom Wicks. Nikon D200 + 10-17mm, Magic filter, no flash. Tom's inspiration for this fun shot of his grand daughter and model Emilee looking out of a porthole, was to recreate a portrait of a secretary blenny peering out of its hole, which Tom jokes are too small for him to find!

(Left) Photo by Tamsin Eyles. Canon 5D + 8mm circular fisheye. Magic filter, no flash. 1/20th @ f/3.5. In addition to the classic shots, the types of images we can produce on wrecks is often only limited by our imagination. Without a model to shoot, Tamsin Eyles found a mirror inside the wreck and took this photo of herself, reflected both in the mirror and her port.

Off camera strobe shots work in a similar way to create atmosphere by having the strobe light source illuminating (or backlighting) the subject, with a dark foreground (as I covered in UWP 57). They can work particularly well in wrecks and strobes are much easier to position and hide in a manmade environment, than on the reef.

Including people in wreck images can greatly

improve many shots. A model provides scale, human interest and a sense of exploration. On popular wrecks we can often exploit models of opportunity (waiting for other dives to swim into the right part of the frame), and unusually, divers swimming away from the camera can work well visually as long as they are swimming towards an interesting feature of the wreck.

Giving the model a

torch is a classic way of helping them stand out from dark water. When working on wreck interiors, we can use a model up close, as a visual reinforcement of an interesting subject, with them “discovering” a feature or artefact in the photo. Such shots can be a technical challenge in terms of lighting (of both the model and wreck interior), model positioning (hand signals can be hard to see in the dark) and space (in tighter sections of passageways), but these shots

can have strong commercial value, even if they are often not the most exciting artistically.

There are many options and many ways to shoot wrecks, and I haven't even mentioned all the marine life that finds wrecks an irresistible attraction. I hope this article has persuaded a few more of you to get stuck into wreck photography.

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Alex is running a workshop at the end of May spending 3 days photographing the Thistlegorm and 3 days photographing Red Sea reefs. Because of cancellations there are now spaces on this trip. And his workshop will be back in Cayman next January too. Contact him through his website for more details.

Don't settle for 2nd best



Film - No Filter
No White Balance



Digital - No Filter
Manual WB



Magic Filter
Manual WB

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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