

My Favorite Underwater

Circles, Curves Bubbles & Swirls

Contributors' Picks from Around the World

Text and photos by John A. Ares, Scott Bennett, Rico Besserdich, Sheryl Checkman, Larry Cohen, Anita George-Ares, Kate Jonker, Matthew Meier, Brandi Mueller and Olga Torrey

We asked our contributors what their favorite underwater photos featuring circles, curves, bubble shapes and swirling patterns were, and they came back with a diverse selection of subjects from delicate macro marine life to majestic manta rays and giant whale sharks. *X-Ray Mag* contributors share their favorite images from the tropical waters of the Solomon Islands, Papua New Guinea, Palau, the Philippines, Indonesia, Malaysia, Cayman Islands, Cuba, Mexico, Costa Rica, Honduras, and the Egyptian Red Sea to the sub-tropical and temperate waters of South Africa, Turkey, Croatia, the US East Coast and California.



Orangutan crab, *Achaeus japonicus* (above), finds shelter in bubble coral, *Plerogyra sinuosa*, Barney's Reef, Papua New Guinea. Gear: Olympus OM-D E-M5 camera, Olympus 12mm-50mm lens, Nauticam housing, dual Sea&Sea strobes. Exposure: ISO 320, f/7.1, 1/80s; The tomato clownfish, *Amphiprion frenatus* (previous page), forms symbiotic mutualisms with the green bubble-tip anemone, *Entacmaea quadricolor*, in Papua New Guinea. Gear: Olympus OM-D E-M5 camera, Olympus 12mm-50mm lens, Nauticam housing, dual Sea&Sea strobes. Exposure: ISO 500, f/6.3, 1/125s

The Beauty of Geometric Shapes

Text and photos by Olga Torrey

Every object has a shape. A line that connects at both ends creates a form. When a profile occurs, it becomes two-dimensional: positive and negative. The positive figure is the actual object, and the negative outline is the area between objects. The regular geometric configuration is precise. A basic geometric shape includes circles, squares and triangles in technology, art and architecture.

The organic form is irregular, such as clouds, trees, rocks, mountains and the human figure. An object appears three-dimensional when depth, length and width become a whole.

The formation of baitfish swimming alongside the sand tiger shark for protection mimics the torpedo-like body of the big fish inside the *Aeolus* shipwreck in North Carolina, USA. This image is an excellent example of a three-dimensional oval profile with the positive physique of the fish as an actual object, the negative space of the wreck interior and the water in the

background.

The tomato clownfish (previous page) feels safe and at home in the dense forest of green bubble-tip anemone in Papua New Guinea. The fish's complex contours on its body contrast with the easy form of the anemone.

The orangutan crab's physique appears like scissors with its thick diagonal crosslines on Barney's Reef in Papua New Guinea. The bubble coral

appear like grapes filled with juicy fluid that can burst at any moment.

The porthole opening outlines a diver's face inside the *USS Spiegel Grove* shipwreck in Key Largo, Florida.

The negative contour brings focus to the diver. The primary colors—red and yellow—of the sponges intensify the blue eyes of the diver. Visit: fitimage.nyc



Sand tiger shark, *Carcharias taurus* (below), surrounded by baitfish, swims inside the *Aeolus* shipwreck in North Carolina, USA. Gear: Olympus OM-D E-M5 camera, Panasonic fisheye 8mm lens, Nauticam housing, dual Sea&Sea strobes. Exposure: ISO 500, f/5.6, 1/160s; Diver inside *USS Spiegel Grove* shipwreck, Key Largo, Florida, USA (top left). Gear: Olympus OM-D E-M5 camera, Panasonic 7-14mm lens, Nauticam housing, dual Sea&Sea strobes. Exposure: ISO 250, f/6.3, 1/60s





Manta Ballet (above). GEAR: Nikonos V camera, 15mm lens, available light. Exposure: ISO 100, f/11, 1/250s

Orbs and Curving Forms

Text and photos by John A. Ares

Fish Eye is a certified circle. The shot was taken in an aquarium, using natural light. Aquariums present many opportunities for great photos due to proximity, unique lighting and varied species. The gold ring around the eye was what attracted me to create the image.

For the longest time, getting to see a whale shark was like searching for Bigfoot. I just did not see them. One place that is very reliable for whale shark encounters is Oslob on Cebu Island in the Philippines. On perhaps the third trip there, I hit the jackpot—seeing five whale sharks all at once. In the shot, *Multiple Whale Sharks*, four



sharks are shown, with their streamlined curves accentuated, as they reach for handouts from the boats above. Weekdays were best to see the whale sharks.

Tunicates (*Atrium robustum*) are fascinating because they have a triple set of circles that repeat, including the little incurrent circles, the large

“excurrent siphon,” and the overall round shape of an individual within the colony. When taking the shot, *Tunicates*, both my strobes were held high and around the back to present rim lighting. The image was then converted to black and white in postproduction, using Nik



Fish Eye (left). Gear: Canon EOS 10D camera, Canon 100mm f/2.8 macro lens, shot through an aquarium window, with available light. Exposure: ISO 3200, f/2.8, 1/30s

Multiple Whale Sharks (below), Oslob, Cebu Island, Philippines. Gear: Canon EOS Rebel T1i camera, Canon EF-S 10-18mm f/4.5-5.6 IS STM lens, Ikelite housing, twin Ikelite DS160 strobes. Exposure: ISO 400, f/11, 1/60s

Tunicates (center). Gear: Canon EOS Rebel T1i camera, Canon EF 100mm f/2.8 macro lens, Ikelite housing, twin Ikelite DS161 strobes. Exposure: ISO 400, f/16, 1/60s



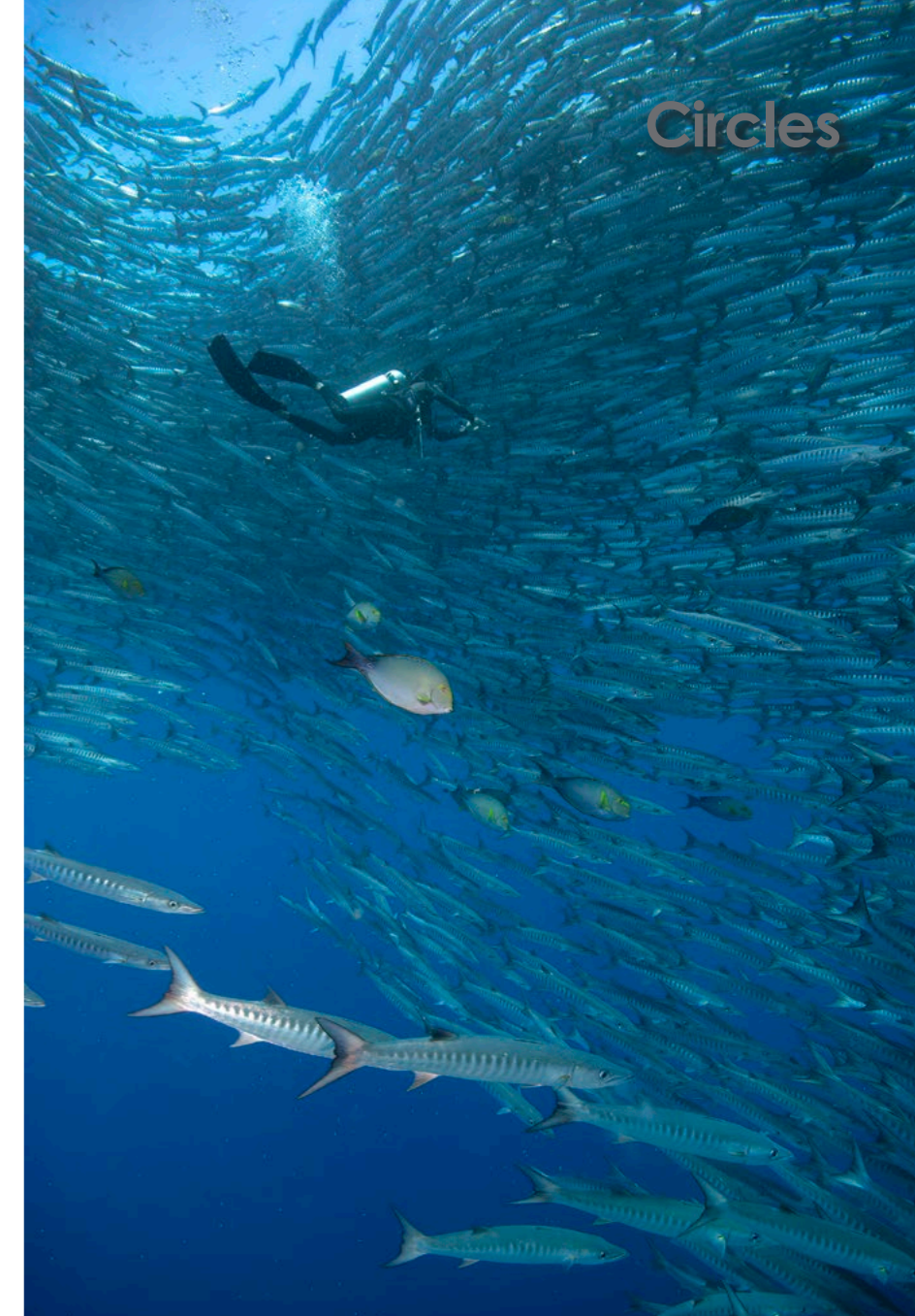
Silver Efix software.

The shot of the manta is riddled with “curves.” This was pure serendipity. It was photographed at the surface, using a Nikonos. My wife had almost a full roll of film remaining, while I had

shot most of my roll. She handed her camera to me and basically said, “Have at it.” For 20 minutes, while snorkeling, we had a great encounter with the manta, as it was very curious and stayed with us. Visit: JohnAres.com



Detail of crocodilefish eye, Tufi, Papua New Guinea (above). Gear: Nikon D200, Nikon 105mm macro lens with close-up filter, Hugyfot housing, two Ikelite D125 strobes. Exposure: ISO 100, f/32, 1/80s; Big-eye jacks, Liberty wreck, Bali, Indonesia (left). Gear: Nikon D200 camera, Sigma 10-20mm lens at 12mm, Hugyfot housing, two Ikelite D125 strobes. Exposure: ISO 100, f/4.5, 1/100s



Chevron barracuda school, Sipadan, Malaysia. Gear: Nikon D200, Sigma 10-20mm lens at 10mm, Hugyfot housing, two Ikelite D125 strobes. Exposure: ISO 100, f/7.1, 1/100s



Golden jellyfish, Palau. Gear: Nikon D7100 camera, Sigma 10-20mm lens at 13mm, Seacam housing, two Ikelite D160 strobes. Exposure: ISO 400, f/20, 1/200s,

Circular Selections

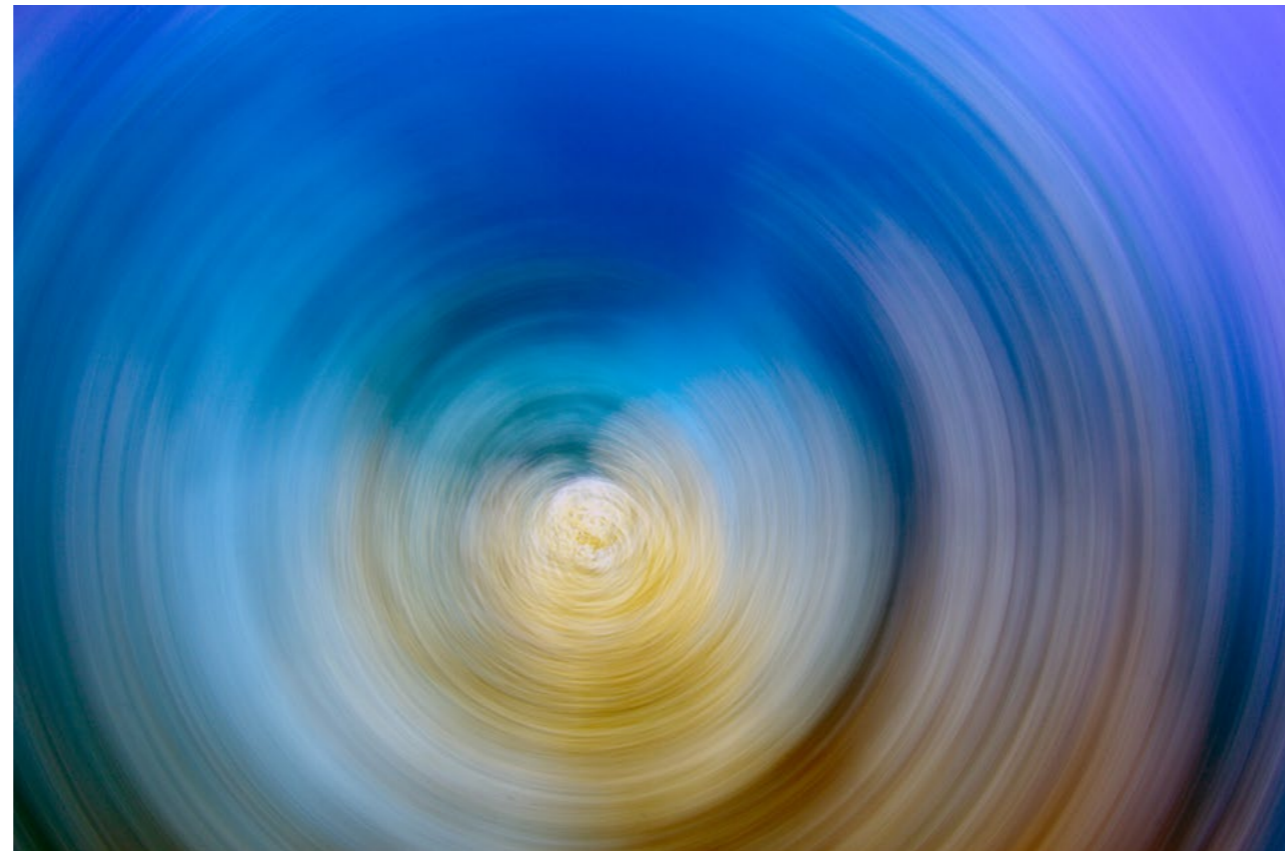
Text and photos by Scott Bennett

While diving off Bali's *Liberty* wreck, I encountered a school of big-eye jacks near the bow just below the surface. Obviously used to divers, the fish were exceedingly tolerant, allowing me to come within an arm's length. After some awkward manoeuvring, I captured the school's "eye" as a solitary surgeonfish passed in the blue, adding dynamic tension to the image.

Malaysia's Sipadan Island is famous for its schooling chevron barracudas, but on my first visit way back in 2003, they remained elusive. A return visit years later proved much more successful. On one dive, I positioned myself within the swirling tornado just as another diver entered my viewfinder. The undulating motion of the fish provides flow, while the diver anchors the image, giving it scale.

For anyone diving in Asia Pacific, crocodilefish are one of those ubiquitous, bottom-dwelling species photographers ignore in favour of more exotic subjects. While on a night dive at Tufi's House Reef in Papua New Guinea, I discovered this specimen resting on the bottom. Moving in closer, my torch beam revealed its eye to be a remarkable fusion of patterns and textures. Especially captivating was the "eyelid," a frilly appendage that looked like an intricate doily.

Palau's Jellyfish Lake proved to be another one of those fortuitous second chances. On my first trip, a newly purchased Nikonos 5 camera, combined with fumbling technique, resulted in disappointing images. Returning years later with a DSLR, I envisioned a shot from beneath, with a jellyfish silhouetted against the blue sky. My disastrous free-diving skills quickly nixed that idea, but I had an epiphany. Locating a specimen just below the surface, I set both strobes set to half power and positioned my housing directly beneath it. Please visit: xray-mag.com/Contributors/Scott-Bennett



Eternity, Hurghada, Red Sea, Egypt. Gear: Canon EOS 7D camera, Easydive housing, 10-20mm Sigma lens (at the 10mm end), ambient light. Exposure: ISO 400, f/8, 1/10s

Swirling Shots

Text and photos by Rico Besserdich

I have always liked creating images of common subjects that simply look “different.” Back in 2013, while conducting an underwater photography workshop in the Egyptian Red Sea, I worked on this very concept, creating a “different” image by using the so-called “swirl” technique for the photo, *Coral Swirl*.

With this technique, you use a longer exposure time, and while taking the shot, you turn the camera in a circle, very quickly. This technique needs a bit of practice but creates images with a “different” look.

The swirl technique allows one to create abstract images. What we see

in the image, *Eternity*, is actually a fire coral. The swirl technique creates (obviously) swirls and circles, thus presenting common subjects in a different, almost philosophical way. The photographed subject itself becomes secondary, while the visual impression becomes the primary aspect.

Two sunken Douglas “Dakota” C-47 airplanes in Turkey have become very popular dive spots. The image, *The Prop*, was taken at the Dakota plane in Bodrum. In this image, I attempted to bring the propeller of the Dakota back to life. The circles and swirls in the image suggest “rotation” and “movement,” thus, bringing life back to something that was supposed to be resting still, underwater, forever. Please visit: maviphot.com

The Prop, Bodrum, Turkey. Gear: Canon EOS 40D camera, Sigma 10-20mm lens, Ikelite housing, one Ikelite DS125 strobe, one Sea&Sea YS strobe. Exposure: ISO 200, f/11, 1/15s

Coral Swirl, Sharm el-Sheikh, Red Sea, Egypt. Gear: Canon EOS 40D camera, Sigma 10-20mm lens (at the 10mm end), Ikelite housing, ambient light. Exposure: ISO 200, f/11, 1/5s





Circles

Bridled burrfish, Ringer's Wall dive site, Little Cayman (left). Gear: Olympus OMD EM5 Mark II camera, Olympus M. Zuiko 60mm f/2.8 lens at 60mm, Olympus PT-EP13 housing, Sea&Sea YS D-1 strobe. Exposure: ISO 200, f/8, 1/125

Octopus, Blue Heron Bridge, Florida, USA (far left). Gear: Olympus OMD EM5 Mark II camera, Olympus M. Zuiko 14-42mm f/3.5-5.6 lens at 42mm, Olympus PT-EP13 housing, Sea&Sea YS D-1 strobe. Exposure: ISO 200, f/11, 1/200s



The Circular Windows of the Soul

Text and photos by Sheryl Checkman

When I look into the eyes of a fish underwater and get a sense that it is looking back at me, I feel a breathtaking connection. Hearing that this month's topic was circles and curves, it felt natural to me to choose eyes—those circular windows into the souls of the sea.

The beautiful iridescent aqua and golden-flecked eyes of the bridled burrfish, at Ringer's Wall off Little Cayman in the Cayman Islands, seemed to be smiling at me, and the slight upward curve of its lips seemed to reflect that. As I captured this beauty in my lens, I could not help but smile in return!

At Nancy's Cup of Tea in Little Cayman, a mutton snapper resting on the sandy bottom was more

abstract. With a macro lens on my camera, I chose to focus closely on its black and orange eye that stood out against the more subtle orange and purple tones of its head.

The circular eyes and two Pederson's cleaner shrimp were the only things that made this very camouflaged scorpionfish visible. The photo was taken on a night dive in Roatan, Honduras.

On a photo workshop dive a few years ago at Blue Heron Bridge in the US state of Florida, there were quite a few octopuses scampering across the sandy bottom (I believe it was mating season). However, I shared a moment with this particular octopus who just sat still staring right back at me and—I would like to think—baring its soul. Please visit: [instagram.com/sherylcheckman](https://www.instagram.com/sherylcheckman)



Scorpionfish (with shrimp), Emily's Escape Wall dive site, Roatan, Honduras. Gear: Olympus OMD EM5 Mark II camera, Olympus M. Zuiko 60mm f/2.8 lens at 60mm, Olympus PT-EP13 housing, Sea&Sea YS D-1 strobes. Exposure: ISO 200, f/8, 1/160s

Mutton snapper, Nancy's Cup of Tea dive site, Little Cayman (above). Gear: Olympus OMD EM5 Mark II camera, Olympus M. Zuiko 60mm f/2.8 lens at 60mm, Olympus PT-EP13 housing, Sea&Sea YS D-1 strobe. Exposure: ISO 200, f/8, 1/200s





Magnificent sea anemone and pink anemonefish on Joelle's Reef in Papua New Guinea (far left). Gear: Olympus OM-D E-M1 camera, Olympus 9-18mm lens, Aquatica housing, Sea&Sea YS-D1 strobes. Exposure: ISO 200, f/8, 1/80s

Helm of an unknown wreck off Croatia (left). Gear: Olympus E-330 camera, Olympus 7-14mm lens, Olympus housing, Sea&Sea YS-01 strobes. Exposure: ISO 200, f/5.6, 1/80s

Diver in sea cave at Kemer, Turkey (below). Gear: Olympus E-330 camera, Olympus 7-14mm lens, Olympus housing, Olympus FL36 flash in PFL-E01 flash housing. Exposure: ISO 200, f/4, 1/60s

Crinoid on Barney's Reef in Papua New Guinea (bottom left). Gear: Olympus OM-D E-M1 camera, Panasonic 8mm fisheye lens, Aquatica housing, Sea&Sea YS-D1 strobes. Exposure: ISO 200, f/5.6, 1/100s

Finding the Perfect Shot with Circles

Text and photos by Larry Cohen

Circles have no beginning and no end, so they have been symbols since the beginning of time. For this reason, they are an essential compositional tool in photography and art. In addition, circles are found in nature and many manufactured objects. Therefore, I tend to look for circular subjects and lines when producing images above and below the water.

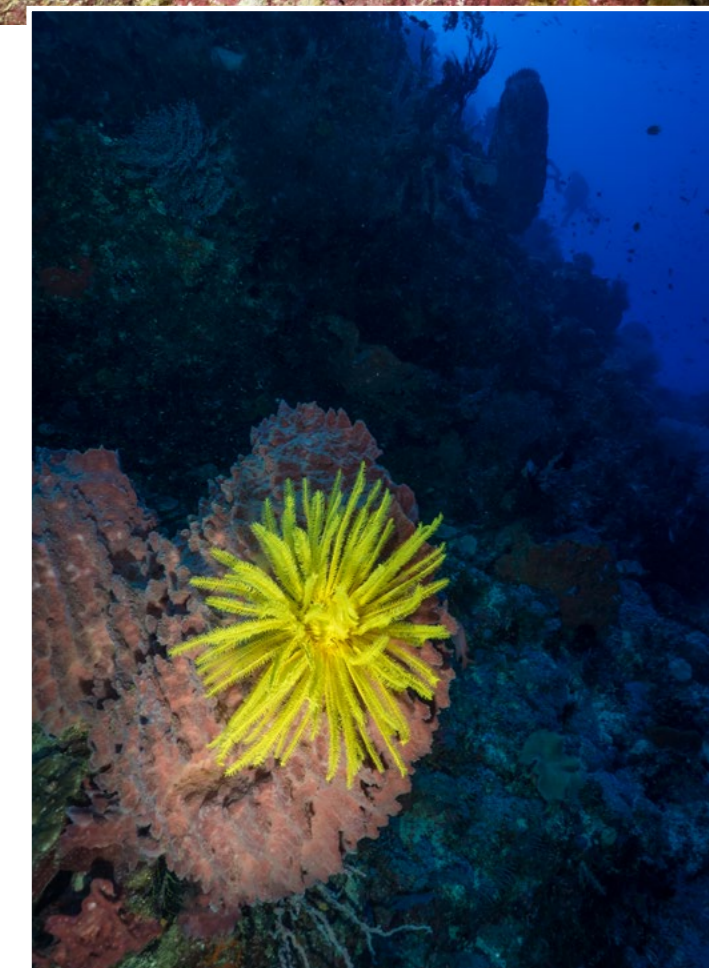
One of the most exciting artifacts on a shipwreck is the helm. Without the ship's wheel, the captain cannot navigate to the destination. Seeing a shipwreck's helm symbolizes the vessel's attempt to reach a destination but never meeting its goal. So, I was excited to see an unknown wreck on its side with the helm still attached when diving off the coast of Croatia. Sitting in the

clear blue water, this was the perfect wreck shot.

Circles can also surround the subject, so your eye is drawn to the center. For example, when diving into a sea cave in Kemer, Turkey, I entered first and faced the entrance. Then, I photographed my dive buddy in the cave's opening. Finally, I set my ambient light exposure for the open water and my strobes for the subject in the picture.

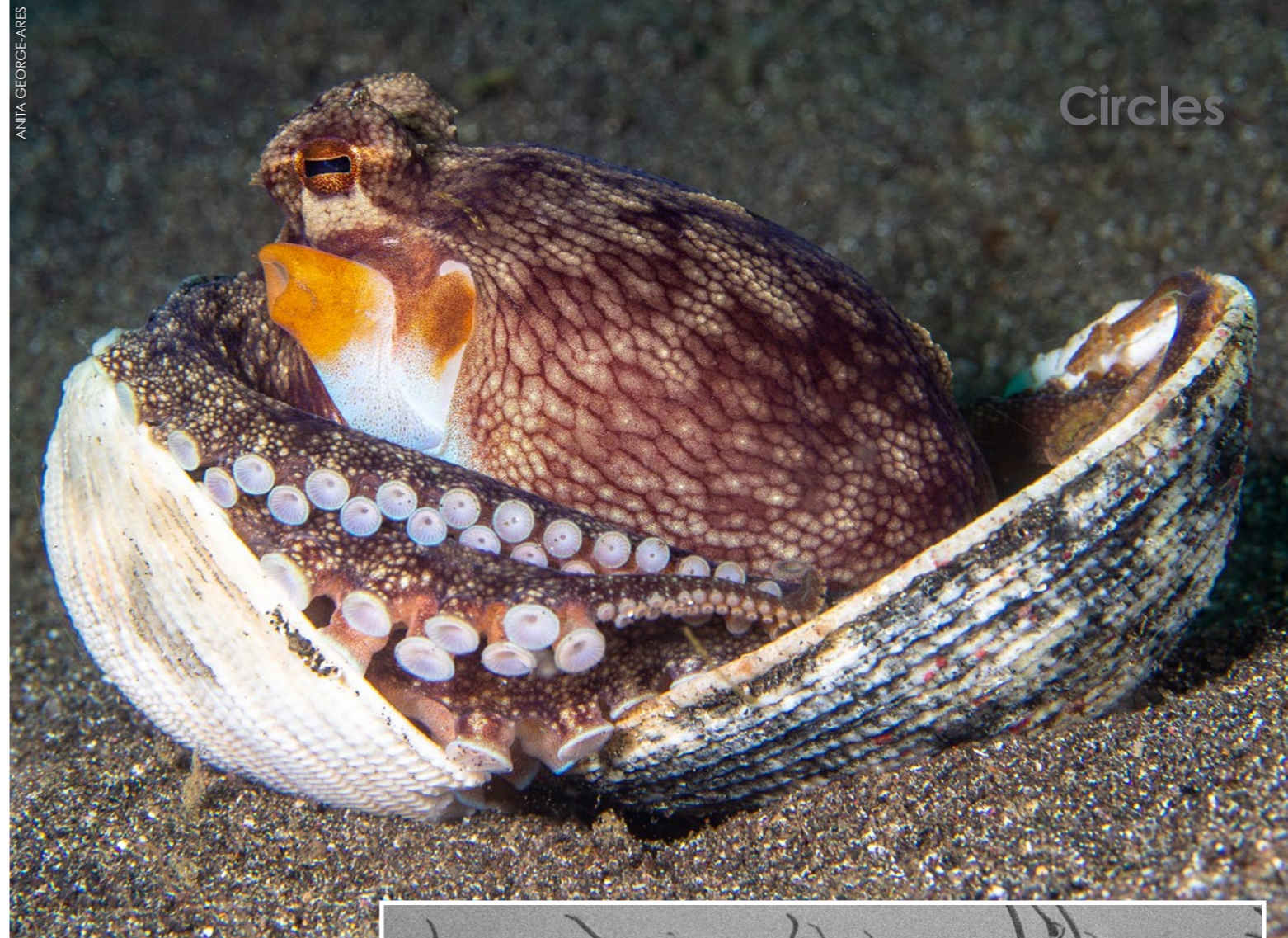
When diving Barney's Reef in Papua New Guinea (PNG), my eye was drawn to the circular shape of a yellow crinoid. My ambient exposure created a dark background. I removed the diffusers from my strobes to produce a spotlight on the crinoid.

Joelle's Reef in PNG is abundant with colorful subjects. Here, I spotted a magenta magnificent sea anemone with several pink anemonefish. I decided to shoot down to emphasize its round shape. Visit: liquidimagesuw.com





ANITA GEORGE-ARES



ANITA GEORGE-ARES



ANITA GEORGE-ARES

Turtle-headed sea snake, Dumaguete, Philippines. Gear: Canon EOS Digital Rebel XTi camera, Canon EF 50mm f/2.5 compact macro lens, Ikelite housing, two Ikelite DS161 strobes. Exposure: ISO 200, f/11, 1/200s

Circles and Curves

Text and photos by Anita George-Ares

I have never seen a coconut octopus sheltering in a coconut. The ones that I have encountered are usually nestled in shells and occasionally in a can or jar. The octopus in this image taken at Lembeh Strait was continually changing its position on and in the shell. Fortunately, the octopus remained still for a moment, allowing me to take this image. The suckers on the tentacles form perfect circles. The shell holding the octopus continues the circular theme.

I always enjoy seeing large colonies of spaghetti garden eels feeding on plankton in the water column. Spaghetti garden eels are less likely to disappear into their burrows as

one moves closer to take an image, compared to other species of garden eels I have photographed. Converting the original image to black and white made for a more interesting image as the numerous curved bodies of the eels were accentuated.

I took this image as I liked the contrast of the black and white sea snake swimming through the red sponge. It was challenging to photograph the snake as it moved quickly out of sight. The curve of the snake's body parallels the curve of the red sponge.

The gills of a giant clam are not visible unless one looks through its siphon. The circular gills complement the elliptical opening of the siphon. The gills appeared as if they were plated with gold. Please visit: facebook.com/profile.php?id=100016947967639



ANITA GEORGE-ARES

Spaghetti garden eels, Dumaguete, Philippines (above). Gear: Canon EOS Digital Rebel XTi camera, Canon EF 50mm f/2.5 compact macro lens, Ikelite housing, two Ikelite DS161 strobes. Exposure: ISO 400, f/11, 1/200s; Coconut octopus, Lembeh Strait, North Sulawesi, Indonesia (top right). Gear: Canon EOS Rebel L SL1 camera, Canon EF-S 60mm f/2.8 Macro USM, Ikelite housing, two Ikelite DS161 strobes. Exposure: ISO 200, f/8, 1/200s

Giant clam gills, Puerto Galera, Philippines. Gear: Canon EOS Digital Rebel XTi camera, Canon EF 50mm f/2.5 compact macro lens, Ikelite housing, two Ikelite DS161 strobes. Exposure: ISO 200, f/11, 1/200s





Starry blenny, *Salaria ramosus*, photographed using very shallow depth of field, Bethlehem dive site, Anilao (above). Gear: Canon EOS 7D Mark II camera, Canon 100mm macro lens, Sea&Sea housing, two Inon Z240 strobes. Exposure: ISO 100, f/2.8, 1/200s



Small longsnout pipefish, *Syngnathus temminckii*, hiding amongst the shells, Pinnacle dive site, Gordon's Bay, Cape Town, South Africa (top centre). Gear: Nikon D850 camera, Meyer-Optik Gorlitz Oreston 50mm lens, Isotta housing, two Inon Z240 strobes. Exposure: ISO 64, f/2.8, 1/250s



Getting Creative with Bubbles and Circles Underwater

Text and photos by Kate Jonker

As an underwater photographer, I am always looking for creative new ways to photograph my subjects.

Hence, my love for vintage lenses that produce interesting effects. One of my favourite lenses is the Meyer-Optik Gorlitz Oreston 50mm lens from the 1960s. It is a manual lens, so I must set the aperture before I put my camera into its housing. I normally work with a very wide aperture of around f/2.8, which results in a very shallow depth of field.

As it is a manual lens, there is no autofocus and I have to move the camera backwards and forwards until the subject or part of my subject—usually the eyes or the rhinophores—is in focus. As the depth

of field is mere millimetres, this can be quite a challenge.

However, it is a lot of fun and I love how little details such as sand and other textures are transformed into lots of little circles or “bokeh bubbles.”

These circles can also be achieved when photographing subjects that have dots on them, by using a macro lens and a very wide-open aperture (such as f/2.8 or f/5.6). This works best when the dots are farther away from your focal point, as the farther the dots are from where you are focussing, the larger your circles become.

Although it can be quite disorientat-

ing swimming over other divers' bubbles, it can also be fun to try to capture the reflection of your own silhouette in the top of a big bubble. Try to do this when the sun is high in the sky and you are quite a bit above the divers, as the bubbles expand and become larger the closer they are to the surface.

There are so many creative ways to capture bubbles and circles underwater. The only limit (apart from bottom time and air in your cylinder) is your imagination! Visit: katejonker.com

Bubble selfie, Ras Mohammed National Park, Red Sea, Egypt (above). Gear: Canon EOS 7D Mark II camera, Tokina 10-17mm fish-eye lens, Sea&Sea housing, two Inon Z240 strobes. Exposure: ISO: 160, f/10, 1/200s

Small speckled klipfish, *Clinus venustris*, Pinnacle dive site, Gordon's Bay, Cape Town, South Africa (centre). Gear: Nikon D850 camera, Meyer-Optik Gorlitz Oreston 50mm lens, Isotta housing, two Inon Z240 strobes. Exposure: ISO: 64, f/2.8, 1/250s



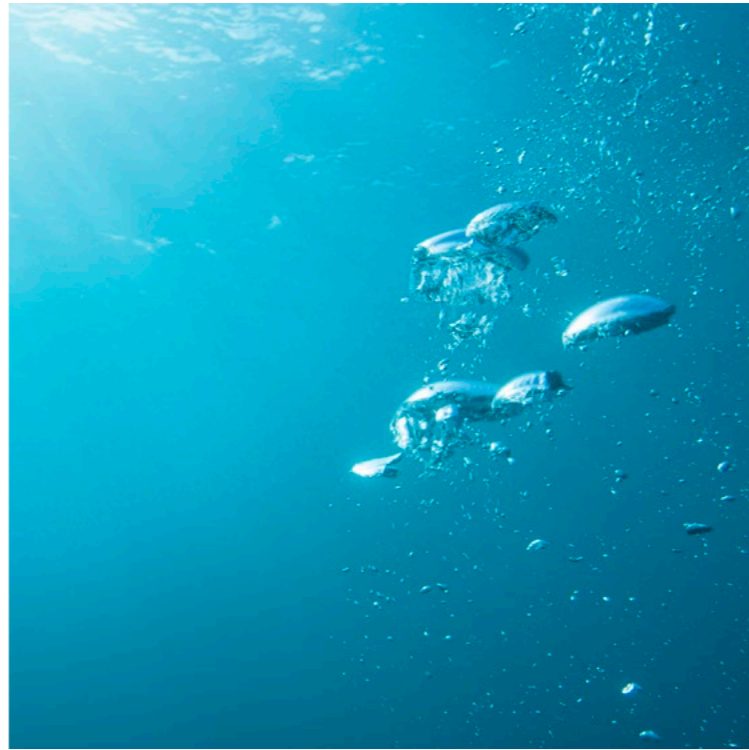


A manta ray enjoys the feeling of the exhaust bubbles while swimming over a scuba diver at the Boiler, San Benedicto Island, Mexico. Gear: Nikon D810 camera, Sigma 15mm fisheye lens, Subal housing, two Sea&Sea YS-250 strobes. Exposure: ISO 200, f/7.1, 1/100s



Large, male great white shark expels bubbles from its gills after lunging for bait at the surface, Guadalupe Island, Mexico. Gear: Nikon D810, Nikon 17-35mm lens, Subal housing, two Sea&Sea YS-250 strobes. Exposure: ISO 200, f/7.1, 1/125s

Large air bubbles rise (from divers below) amongst streaming sun rays, Gardens of the Queen, Cuba. Gear: Nikon D3 camera, Nikon 17-35mm lens, Subal housing, available light. Exposure: ISO 200, f/11, 1/125s

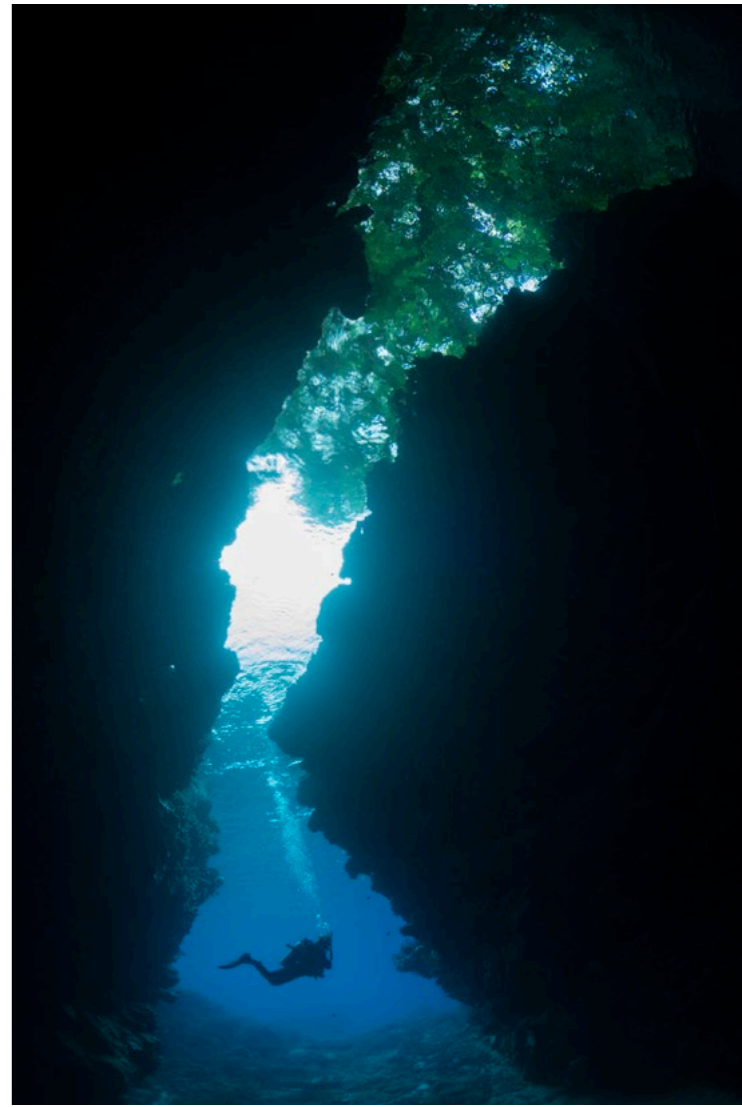


Bubbles Galore

Text and photos by Matthew Meier

I have spent countless hours lining up a shot with my underwater model, waiting for all of the elements to be perfectly positioned, all while trying to synchronize my shutter release between exhales to eliminate bubbles from the scene. On those occasions where my timing failed, I have seemingly spent as many hours on the computer after a photo shoot erasing unwanted bubbles. For

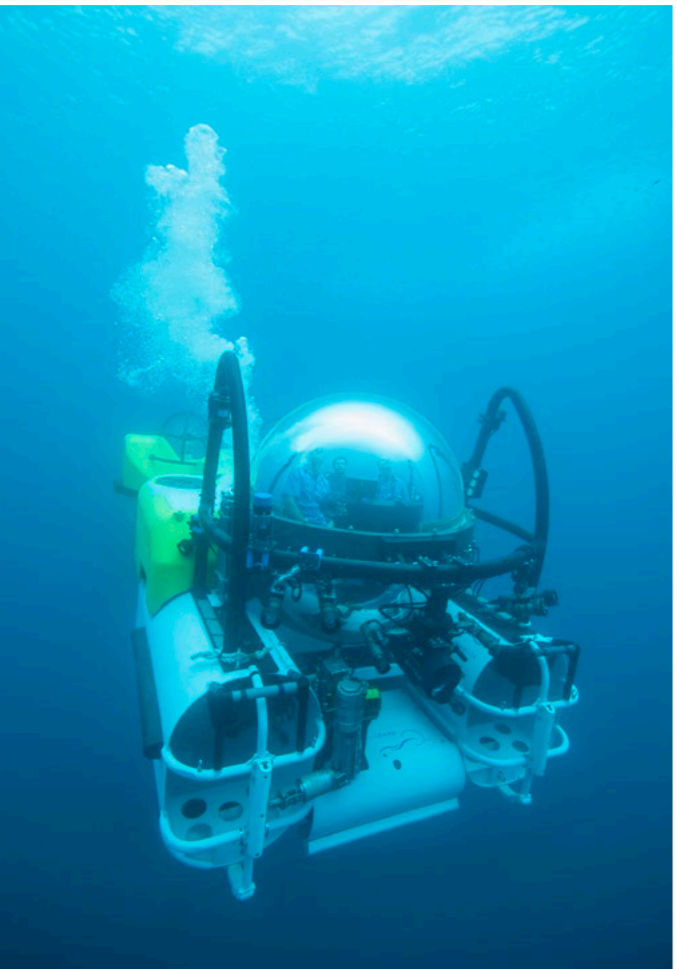
all of my efforts to keep bubbles from disrupting the composition, there are times when bubbles also benefit an image by illustrating a behavior, filling negative space, accentuating motion or simply by helping to define that the subject is underwater. And every once in a while, there is no subject to photograph and the focus of the image is the bubbles themselves. Visit: MatthewMeierPhoto.com



Exhaust bubbles escape from diver in cavern, Marovo Lagoon, Solomon Islands. Gear: Nikon D810 gear, Sigma 15mm fisheye lens, Subal housing, available light. Exposure: ISO 400, f/5, 1/125s



California sea lion playfully blowing bubbles, Santa Barbara Island, California, USA. Gear: Nikon F4 camera, Nikon 20mm lens, Fuji Velvia film, Subal housing, available light



The DeepSee submarine venting bubbles to control its buoyancy as it surfaces, Cocos Island, Costa Rica. Gear: Nikon D3 camera, Nikon 17-35mm lens, Subal housing, available light. Exposure: ISO 800, f/7.1, 1/50s



False Eyes

Text and photos by Brandi Mueller

Circles on fish can be a survival strategy. By having large, dark round blotches near the tail, a fish may confuse its predators into thinking those markings are eyes. Often referred to as “false eyes,” these circular shapes can serve as a defense mechanism in several ways. The first may be that the predator will not attempt an attack, because if it thinks those large dots are eyes, then the fish behind those big eyes is too big to tangle with.

False eyes can also trick a predator into expecting the fish to swim in a different direction than it actually will. If a predator goes after the end with the false eyes, it might think the prey will have no choice but to swim into its mouth, when, in fact, the fish will swim forward and away from the predator.

Finally, if all else fails, a bite out of the tail may not kill a fish, but a bite to the head most likely will. Sometimes, false eyes are only seen in juveniles. They fade and its patterns change as the juvenile fish transitions into an adult. Visit: brandiunderwater.com



Juvenile puddingwife, Cozumel, Mexico (above). Gear: Nikon D850 camera, 105mm lens, Ikelite housing, dual Ikelite DS161 strobes. Exposure: ISO 200, f/10, 1/200s; Two spot goby, Solomon Islands (top left). Gear: Nikon D500 camera, 105mm lens, Ikelite housing, dual Ikelite DS161 strobes. Exposure: ISO 250, f/13, 1/160s; Copperband butterflyfish, Mabul Island, Malaysia (top right). Gear: Nikon D750 camera, 60mm lens, Ikelite housing, dual Ikelite DS161 strobes. Exposure: ISO 250, f/22, 1/200s; Juvenile clown wrasse, Red Sea (right). Gear: Nikon Z7 II camera, 105mm lens, Ikelite housing, dual Ikelite DS161 strobes. Exposure: ISO 125, f/5, 1/200s

