

Art

An Artist and a Curator's Death-Defying Dives 200 Feet below the Pacific

Nadim Samman and Julian Charrière

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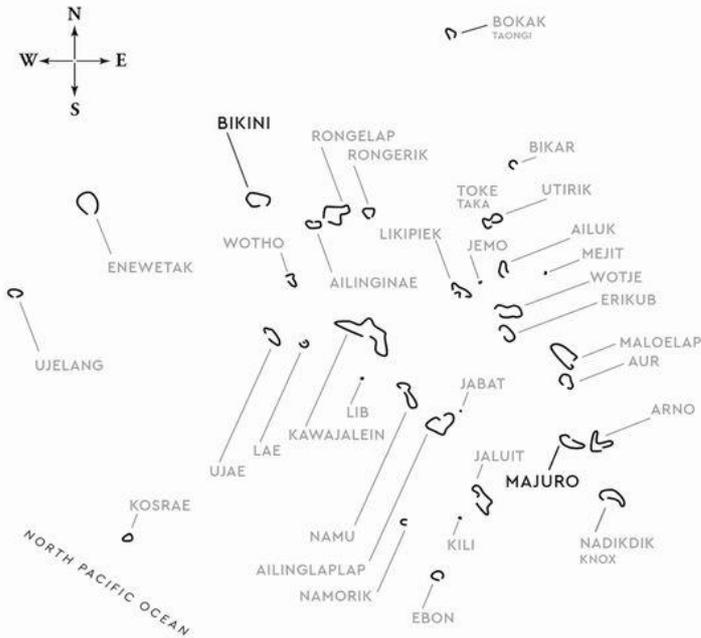
In late 2016, Julian Charrière and I undertook a month-long expedition to Bikini Atoll in remote Micronesia, onboard a repurposed pearl-diving vessel. Our goal was to document the architectural legacy of nuclear testing, pursued by the U.S. government in the decade immediately following World War II. This was an initiative that displaced an indigenous community otherwise settled for millennia. It also irradiated a host of islands and hundreds of persons—a crime as yet insufficiently atoned for. As well as focusing on massive concrete casemates and bunkers, constructed on the shores of otherwise paradisiac beaches, we trained still- and moving-image cameras on the sunken shipwrecks lying on the bottom of the atoll's lagoon. The resulting images and artworks would feature in Julian's current solo exhibition at the Berlinische Galerie.

*Upon returning from the Marshall Islands, we both felt profoundly affected by what we had experienced and realised that, beyond an visual account, we also had a sea-story to tell. We decided to chronicle our experiences underwater, in a narrative that straddles the genres of travelogue and critical essay. Toggling between an account of a ocean journey, above and below water, and a critical investigation of postcolonial geography, our book, entitled *As We Used to Float*, stages a series of narrative immersions—variously, taking on the psychological and aesthetic parameters of ultra-deep scuba diving, the abject poetics of sea craft, and the stakes of subaquatic image-making. The following is a unique re-edit of passages for Artsy.*

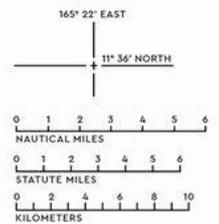
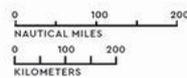
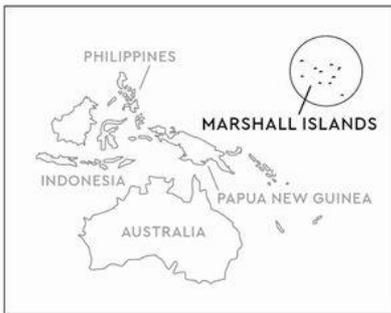
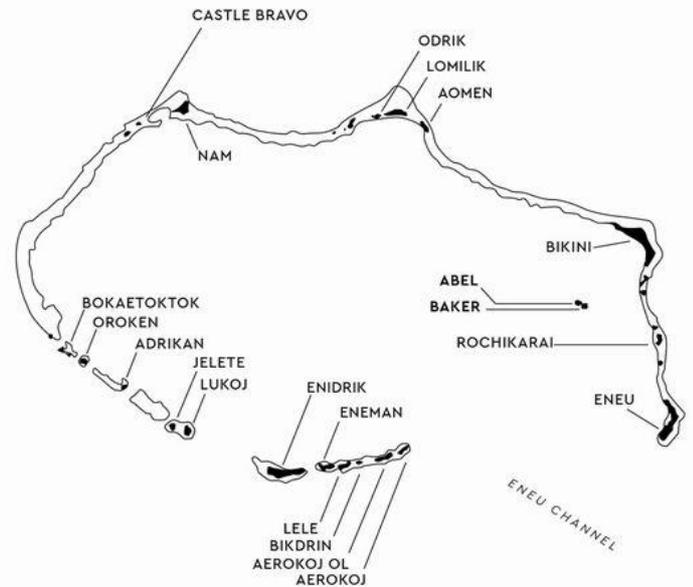
Bikini lies beyond the forty-eight-hour delivery rule. A global network of cars, trains, and airplanes can only get you to the dock at Majuro, capital of the Marshall Islands, before an ocean journey must begin. There is no ferry, and only one suitable vessel is available for charter—the Windward, a beaten up pearl diver from the 1970s. Once you have concluded negotiations with its owner you

can embark, entering a parenthesis in your life; a capsule, outside time and phone signal. Out in the wide Pacific, flows of energy run up against the beam, tipping the boat from side to side, constantly, in the spell it takes for you to become a sailor. The passage is an initiation, or sickness, that finally breaks with sunrise and first sight of land.

MARSHALL ISLANDS



BIKINI ATOLL



Map by Bijan Dawallu.

The island is a line of green floating on a raft of yellow sand, a shock of luminous color like a gem set within another—the lagoon. It is a picture of *the good* as a geographical figure, so related in brochures promising space beyond the metropolitan everyday. You cannot help but recognize it as a place you have wanted, a figure centrally located in a dream that is our culture.

It is only after fully indulging this reflex that your gaze steadies. For the last seventy years, it has been a veritable ghostland. Between 1946 and 1958, twenty-three of the most powerful man-made explosions in history, delivering a combined fission yield of 42.2 megatons, occurred here. The force of one of these, Castle Bravo, was enough to vaporize three islands and gouge a massive crater—measuring 800 meters in diameter—out of the primordial reef. Another threw a fleet of captured and decommissioned World War II battleships—some of them more than 250 meters long—up into the air. A few were ripped to shreds. Others, like the USS Saratoga and the HIJMS Nagato—storied flagships of the United States and Japanese navies—eventually sank to the bottom, where their rusting hulks remain.



Julian Charrière Bokbata I - Terminal Beach, 2016, 2016, Sies + Höke

During this period, obliterated geology would become radioactive particles, carried on the wind to then fall on communities in neighboring atolls. Meanwhile, the people of Bikini, who had been asked to “temporarily” leave their home to make way for a series of experiments disingenuously ventured “for the good of mankind and to end all wars,” began to learn the meaning of a dispossession that continues until present. Today, the atoll bears architectural scars that stand as profane registers of this program, and its unresolved consequences—a series of concrete bunkers, jutting out from the shore. A terminal beach. [...]

Diving the wrecks of Bikini Atoll requires intense preparation. Lying some sixty meters below the water’s surface, only the successful performance of a host of specialized scuba processes can deliver you to them and bring you back without the bends. The aim of this kind of diving is to operate at the limits of the feasible, in terms of depth, time, and human physiology. It is a system for managing the greatest degree of risk while remaining in control and achieving objectives underwater. Technical Diving is a practice wholly concerned with the outer regions of safety, defined *technically* as opposed to recreationally.

The theoretical aspect of this sort of diving involves studying the interplay between physics and biology relevant to a person’s consumption of multiple gas mixtures over the course of a single dive. Breathing regular air at pressure causes progressively increased degrees of physiological impairment the deeper you go, due to nitrogen narcosis. It also ushers in the risks of oxygen toxicity, based on

the partial pressure of the breathing mixture. Switching gases to avoid both of these factors is the name of the game. But this practice requires an understanding of when to switch and at which depth. Such factors are unique to each dive profile and must be planned every time, individually. Switching too soon or at the wrong depth, or miscalculating the length of time needed for any stage of the decompression procedure, is no benign mathematical error, but can bring on fits, paralysis, incontinence, bubbles in the brain, and even death.



Julian Charrière, *As We Used to Float - USS Saratoga 01*, 2016. © Julian Charrière; VG Bild-Kunst, Bonn, Germany. Courtesy of the artist.

In addition to the theory, there is an exponential increase in gear: You don't use a Buoyancy Control Device (BCD), which is a kind of a plug-and-play system. Instead, you put on "wings"—a kind of streamlined harness incorporating a thin steel plate and numerous metal rings for attaching things. It looks closer to rock climbing equipment than something for scuba, and requires a lot of attention to set up before each dive. You strap two tanks onto the back of it instead of a normal single. To the front, you clip another, containing a higher percent oxygen mix. Instead of two regulators you have three. You also need three delayed surface marker buoys (DSMBs): one to deploy during decompression, another if you have a problem and need to alert the surface, and a third in case you lose one. In addition to your first dive computer, you wear a backup. And if both fail, your dive plan is also written out on a slate, which you strap to your other forearm. You carry a spare mask and two torches. You wear a knife on your leg, should you need to cut yourself out of a tangle, and whatever other tools your mission requires—in our case, cameras and lights.

Laden with all these things, underwater, you need to be comfortable and in control. You also need to be much more aware of your buoyancy than on a recreational dive, as the border between safety and danger can hinge on a meter during decompression. To maintain your depth, precisely, you need to be alert to your body, noticing subtle changes in pressure before you have to look at an altimeter. With so many objects to take care of, you cannot be constantly checking throughout the forty-something minutes you spend hanging on the line.

At the end of the theoretical and practical training, our instructor, Nico, says that he is passing us. According to the terms of his insurance, thus far, he has only brought us to forty-five meters and no deeper. Now that you are newly minted technical divers—he states with a wry smile—I'll take you down to sixty, *just so you can feel it*. This seems like a figure of speech. So far, everything appears the same, whether at twenty, thirty, or forty. Once you pass that second atmosphere, at ten meters, and have equalized, your inner ear is set up. He tells us that the plan is to jump in and go straight down until we hit depth, then we will ascend. *Just a bounce*, he says.



Julian Charrière, *Iroojrilik* (film still), 2016 © Julian Charrière; VG Bild-Kunst, Bonn, Germany. Courtesy of the artist.

We tip backwards over the side of the zodiac and purge the air from our wings, descending headfirst for a few seconds amid a rumble of bubbles. We feel a squeeze around our necks as the pressure increases, as well as the swift chill of the thermocline, sitting high-up in the water column. As we slide down a little deeper into the water, righting ourselves, it takes on the green-brown color of crocodile skin, and before long visibility is just a meter, our fins barely visible through the fog. We are sinking, but apart from the initial visceral register of the pressure, there is no way to tell that we are moving, except for the altimeter function on our computers, ticking away. In less than a minute we are at forty. Forty-one. Forty-two—and there is no bottom, just blurry darkness.

At this rate of descent, you start to think that you will soon hit your limit and that, as a matter of necessity, it is time to slow down. So, you inject some air into your wing—a conservative amount, so you don't shoot up like a rocket towards the surface. It has no effect, and the computer keeps ticking the meters away. Deeper. Still negative buoyancy. You reason that the pressure at this depth is greater than anything encountered in training, so you give it double. No result. Still falling, now scared. The thought of sinking further into the yawning chasm, beyond recovery, is horrifying. At fifty-five meters, you are charged with adrenaline, alert and trying to work it out, when—all of a sudden—you are dunked in a pool of insanity. A wave of intoxication breaks throughout your bloodstream; your brain enveloped by a tsunami of nitrogen, rendering you dizzy and confused.

What makes the intoxication so terrifying is that you possess just enough awareness to know that you have lost the thread—that you are unable to make a plan, barely able to make sense of the numbers on your computer. You are out of control and the abyss is taking you. In panic at this realization, you start to breathe heavy. And with heavier breathing comes more narcosis—a downward cognitive spiral. Now you are hyperventilating. You can't get enough air out of the regulator. It feels like the device is the problem—stopping you from getting the breath you need.

You feel like spitting it out, opening your mouth wide and drinking the air, even though the still-useful part of your mind knows that this is the worst thing you could do. You know, too, that freaking out is a grave mistake, and so you panic even more. You kick your legs because you no longer trust your wing. No escape. Fifty-nine. Sixty. Sixty-one—and you turn to look for Nico, gesticulating wildly to indicate that you have lost control; that you are fucked up. Later, Nico says he saw the fear of death in your eyes.



Julian Charrière, *Iroojrilik* (film still), 2016 © Julian Charrière; VG Bild-Kunst, Bonn, Germany. Courtesy of the artist.

Once Nico sees it, he takes over. He firmly grabs your shoulder, extending his arm and locking his elbow—placing maximum distance between his body and yours while keeping hold. The reason for this, we learned in our rescue training, is that panicking divers have a tendency to claw at the person trying to save them, sometimes ripping away their mask or regulator, perhaps even trying to steal the latter, abandoning themselves to shameful instinct.

He holds you there and stabilizes your depth. Then he looks you in the eye and holds you with his gaze, making you understand that he is in control; that *somebody* is—delivering you from the anxiety of having to take care of yourself. This done, the panic is gone—despite the remaining narcosis. A few seconds, then a simple gesture: a thumb pointing up, indicating that we should now ascend. And we do, slowly, meter by meter. Sixty. Fifty-nine. Fifty-eight. His hand still gripping your shoulder. When you reach forty, though still intoxicated, you can feel it start to drop off, like you have passed the apex of its bell-curve. You can see, now, that you will not fall any deeper into the trip. You are ready to take back control of your life. You point to yourself, then offer Nico the classic hand sign for OK. He lets you go and the rescue part of the dive is over. All that is left is to make a controlled ascent. [...]

The Windward was built in the 1970s. Though it sits high in the water, Brendan, the captain, swears he wouldn't want to be on another in heavy weather. It is tried and tested, and looks it too. Noisy, smelling of fuel and paint, to us it appears a rather alien piece of machinery—a chunk of steel that should contravene the rule of flotation. But it doesn't. On this first night beyond the protected water of Majuro's lagoon, as a sizable ocean swell slaps against the vessel's port side—the beginning of what will turn out to be a constant volley all the way to Bikini—we begin to settle into our new home. Having picked out our bunks and unpacked our clothes, cameras, and dive gear, wobbling

all the way, we begin to entertain the vessel's merit: it's a working boat and it has been around, which means that it *does* work.

Its broad aft deck is where the compressors, tanks, and dive gear are stowed. But the main feature of this area is a mean-looking hyperbaric chamber, hidden partially under a shroud of tarpaulin—a thick steel tube, like a torpedo, studded with bolts, a few gauges, and a little porthole. As far as we are aware, it is the only such piece of equipment in the Marshalls—save for one on the closed U.S. naval base at Kwajelein Atoll. Though it looks a bit rusty and primitive, it is a necessity: deco diving in the middle of nowhere should not be attempted without one. The dive profiles at Bikini will give you the bends, as a rule, unless you plan meticulously and successfully perform your decompression procedures. As we're admiring the facility, John steps out from the galley to tell us that dinner is ready. But not before he approaches and asks if we like what we see. Yes, we say—and we never want to see its inside. We have to ask, though. He says of course he has had to operate the chamber a few times. People push their limits, especially with closed-circuit rebreather systems. A couple just weren't good enough divers to be taking on the sites—basic mistakes, like losing control of their depth during the safety stop.

We head inside, where our inaugural meal awaits—steak. Over the course of dinner, we quiz John about what to expect and what can go wrong. Like many professional mariners, his style is laconic, leaning on anecdotes. Last year, he says, one guy got the bends, had a heart attack, and died underwater. The *Windward* was a three-and-a-half-days' sail from Majuro, so they had to keep his body in the freezer, the same one from which our steaks emerged this afternoon. We're sure he isn't joking. Given all the vessels afloat, it stands to reason that something like this happens every day, somewhere. On dive boats it is especially common. The captain of one in the Galapagos told us a similar story, once: On the second day of a long charter someone croaked. Two of the deceased's family members were also onboard, but they asked to continue with the itinerary instead of immediately heading back to port. Why not take the time to reflect on things for a few days, taking in sunsets and wildlife, they reasoned, before beginning the onerous logistics of arranging for a body to be shipped back to Europe? Talking about these things allays our apprehensions about the expedition a little, counterintuitive though it may seem. We raise our glasses and toast the voyage ahead, along with each other's company. [...]

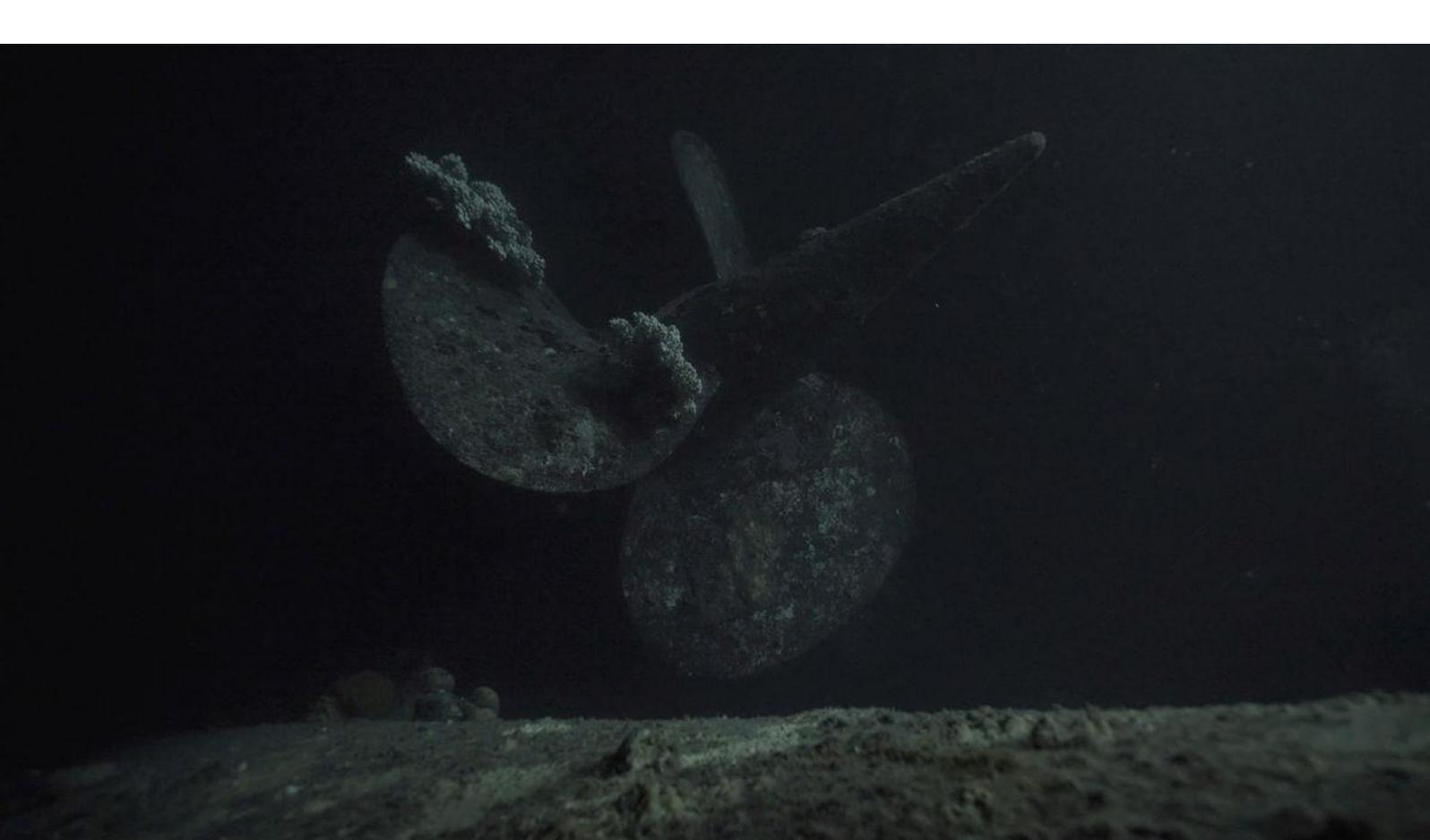
We are about to leave the *Windward* by zodiac for the super-dreadnought HIJMS *Nagato*, and the swell seems more open ocean than lagoon—two to three meters from tip to trough. We start to question our agenda. Should we go? Underneath, the waves are no problem, but when you're hanging onto a steel bar for deco and have to keep a stable depth, they're dangerous. The sky is grey and the air is thick with brine, coating our faces in a film of moisture. Though the day's temperature is typically tropical, a clammy chill sits on the surface of our skin. Even when we wipe our hands, or our cheeks, they remain damp. Everything is wet, not just the sea; the air is suffused, as are our clothes, like the walls of our bunks, and our pillows when we awoke this morning. John looks a little nervous, his gaze shifting between bow and stern. It's impossible to tell if that is sweat on his brow or just condensation. The *Windward* is bouncing, and with every upsurge the bow yanks at the anchor line. John's worry is that if things pick up, the boat will rip free, leaving any divers without a rope to climb. But time is running on and every day counts.



Julian Charrière, *Iroojirilik*, 2016 © Julian Charrière; VG Bild-Kunst, Bonn, Germany. Courtesy of the artist.

“Well, conditions aren’t great,” he says, typically laconic, “but you guys have your objectives, right?” We assent. The charter can’t be extended. “I have to go anyway to take the rope off, since we can’t overnight here. It’s too exposed. You guys should just know that if we jump we might not have the bar available on the way out. We’ll have to see. If the boat pulls off, we do our deco on the drift.” We’re looking at each other with trepidation, trying to hold its outward signs in check. We help each other into our gear like we always do, checking that all the valves are open and that there is air in our tanks. But this time we do it a little more carefully, making triple sure. Perhaps we’re unconsciously slowing the process down a bit, trying to assure ourselves that we have each other’s back. Once we’re ready, it is only a few awkward frog steps to the edge of the deck. The jump. As agreed, we enter with uninflated wings and establish neutral buoyancy a few meters below. We don’t want to bob around next to the boat, which is lurching violently—its back platform slapping the water. We gather together underneath the keel before swimming to the anchor line, which we climb, hand over hand, as usual, headfirst, down towards the bottom. At thirty meters, the thermocline gathers us up in its chill. We will shiver the rest of the way. Continuing, the rope between our hands is tight, as if it were made of steel, wrenching every now and again as the Windward—like a kite in the sky—rocks atop the surface.

Down, down, through the plankton, until we spot that first moment of submarine architecture—a blur, becoming an angular shadow, announcing the wreck. At the end of the line we gather together on this strange new planet. We’re at the stern of the ship, specifically, its underside, the beginning of a wave of rusted metal that picks up some ten meters further along from us and begins to peak towards what, after swimming further, resembles a sequence of alien monoliths: three gigantic, curved obelisks, standing as tall as any monument, rise from a bend in the vessel’s spine. Nearby, another three—from behind which crepuscular light emanates, giving their dark faces a gloomy aura. These are the Nagato’s propellers—part of what was, at the time, the most powerful marine engine in existence. Approaching this monstrous war machine from the business end, motor first, is absolutely suffocating. It’s a groggy vision—the deep sleep of modernism; the height of imperial Japanese industry, overturned, flipped over, and torn up, its propellers gigantic tombstones.



Julian Charrière, *Iroojrilik* (film still), 2016 © Julian Charrière; VG Bild-Kunst, Bonn, Germany. Courtesy of the artist.

The scene stops us dead for a moment, before we are pushed by the current towards the propellers and seized by the apprehension of their infernal corkscrews raging into motion. There's no chance of it, but our hearts race anyway. Though the Nagato might be necrotic with rust, it feels dangerous to be so close. Kicking to take back control only partially allays the fright. Now, the aural hallucination: the throbbing noise of gears and combustion. For days, we've felt the rumble of the Windward's engine through its structure, as we slept in it; as we worked. Even here, this deep, we can still hear it pulsing through the water. The violence of it is something you can't ignore when you approach the boat on ascent, and when you're clasping onto the deco bar it fills the lagoon with urgency. Here, so close to the Nagato's propeller array, as large as the Windward itself, the thought of *this* engine's sound, far outstripping anything we've heard, is horrifying—an underwater earthquake capable of setting every molecule in the drink, and one's body, vibrating so ferociously that it would be fatal to experience.

As if hypnotized, it takes a few minutes for us to remember that there is more to discover. We finally move past the propellers and follow a hydrodynamic line as long as a building, running into greeny darkness, in the direction of a bow that we know to be 250 meters away. Curving and scaled with growth, the structure beneath us suggests a fossilized sea monster or dinosaur from another age. The hull, bristling with oversize coral ferns, gives the impression that its minimal architectonic volume has sprouted hair, or roots. Emanating from this corpse, they conjure the idea of the Nagato's undead reanimation. Persisting with our plan, we follow the wreck all the way to where it meets the bottom. Then we begin to shoot it, set against the distant shimmer of the surface. From this angle, the propellers lost to the opacity of the water, it looks less a monster than a cast-iron Zeppelin.



Julian Charrière, *Iroojirilik* (film still), 2016 © Julian Charrière; VG Bild-Kunst, Bonn, Germany. Courtesy of the artist.

Kicking into a new position, and trying to steady the camera, when a rush of bubbles clouds the scene—bringing with it a boiling noise. It isn't your regulator but the eruption of a leak. You draw a huge breath from the hose, in horror, and wheel around, on reflex, as if you might be able to see where it is coming from. Sixty meters down and a fault: your air, escaping into the water. Flailing. Turning—in a storm of fright. You reach back, behind your shoulders, for a tap. You grab a piece of rubber. Searching. Your hand slaps the aluminum of your tanks. And you draw another breath. Heavy. You exhale just as quick, adding to the flurry of bubbles. Faster. You finally get a hold of the dial and are about to turn it, unsure if it is the faulty one. More discharge. A vision of drowning, in the green, stricken from your mind by another—getting to your buddy and his second regulator, then a long, fraught ascent, depleting his reserves—double quick. Time enough for deco before nothing is served by the hose? Clenching your hand around a plastic bit, you are about to turn its screw before someone pulls your fingers away. In a second the flow ceases, except to your mouth. Saved. By John. You want to thank him, but not before you check your pressure gauge and reorient yourself. It is fine. John shows you his own reading, and makes eye contact. Signs exchanged. It was short. Negligible. We can stay here, if you can regulate your breath.

The root of self-control is steady breathing. What you normally do, unconsciously, you must choose in the deep. Bringing breathing into the domain of intention, where you choose the volume of each gulp, and their tempo, is what will allow you to complete this dive. Underwater, you always have the feeling that you are breathing too fast or too slow. It is a very complex thing, relearning how to breathe. It means reimagining something that has always been given. Breathing is what gives rhythm to a dive. It serves as a kind of metronome for this new reality—counting out the expenditure of your gaseous license to remain. Underwater time expands, if you can control it, so breathing becomes an obsession. The pressure gauge on your tank is like an hourglass—a physical display of the temporal. Here, time is not something that starts in the past and ends in the future. It is finite. You have a certain amount, encapsulated in a limited quantity of material—a basic condition of life which is not displayed often enough.



Julian Charrière, *Iroojirilik* (film still), 2016 © Julian Charrière; VG Bild-Kunst, Bonn, Germany. Courtesy of the artist.

Clock hands go round and round in a circle, but they are lying. Somewhere there is a battery or a coil, charged with a limited amount of energy. Right now, the aqualung is serving as your human organism's battery. It is just air in a bottle—a bubble, squeezed into a tubular geometry. A bubble on your back. High above the water, millions of light years away, the celestial battery also counts away its time. On a nearby beach, Baker's cesium has nearly run out of half-life. We continue with our dive plan, exalting the wreck with our attention.

Our computers start to beep. We've reached planned bottom time and need to begin our ascent. As we do, again tracking along the hull, we take turns breaking off to inspect the ship's side. Here, monolithic surface gives way to heavy armaments—guns and torpedoes. Movement. A large grey reef shark disappears into the boat itself, through a huge fracture at the vessel's original waterline—just one of many cavities big enough to drive a tank through. Now it is clear that the interior of this beast is a hive, with all kinds of life thriving in its deepest recesses. The thought of exploring this dimension of the boat, wriggling through hatches and along pitch black corridors, into compartment after compartment, metal caskets, all of them, is enough to make one long for the open sightlines of the hull. And with our ascent planned on a minute-to-minute basis, there is good enough reason not to entertain the notion.



Julian Charrière, *Iroojrilik* (film still), 2016 © Julian Charrière; VG Bild-Kunst, Bonn, Germany. Courtesy of the artist.

Further along the surface of our rusty highway, we encounter an apparition stranger than anything so far. Rising up from underneath us, a perfect black hole slides into view. In this space of blurriness, particulate flows, organic materials, and rust, it affords a little break in the visual spectrum—a perfect geometric form. Flat, at first, it defies comprehension, seemingly swallowing the light around it like a piece of dark matter. But training a torch on it reveals its three-dimensional quality—not a hole, but a black orb, about one inch in diameter, rising at a rate slower than our air bubbles. As we gesticulate questions at each other, another one forms, as if by magic, on the skin of the hulk, before rising too. Getting closer offers no further illumination, until a mask is pressed right up against it and, immediately, it steals vision away, for a second, in a wash of black. More. We grab at them. They disintegrate and stick to our fingers. It's oil. Crude oil. The Nagato's fuel tank, filled seventy-five years ago, survived the atomic blast and has laid at rest on the bottom of the lagoon ever since. But what explosions cannot do, salty sea water will. The slow rot of the hull has occasioned fissures, through which oil has been escaping, bubble by bubble, constantly, for who knows how long. And it will continue to do so, until such time as the hull collapses entirely, releasing thousands upon thousands of gallons into the lagoon, to spill black death on the coral that has grown, despite all odds, in the last three quarters of a century: a slow-motion emergency.

Nadim Samman
Julian Charrière

Header image: Julian-Charrière, *Iroojrilik* (film still), 2016. © Julian Charrière; VG Bild-Kunst, Bonn, Germany. Courtesy of the artist.

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