

: TEXT BY AMY REID, IMAGES BY FOUED KADDCHI,  
DELPHINE ROBBE & EMMA DAVIS COURTESY OF  
THE GILI ECO TRUST

# trawangan

**G**ili Trawangan, this tiny island only a couple of kilometres long, was off the northwest coast of Lombok in Indonesia and has put itself on the map with its reef restoration efforts. Home to the second largest Biorock® site in the world, they have literally grown an entire dive site's worth of new reef. I was to be a part of a reef restoration program that would be taking me from Advanced diver up to Divemaster, balancing my diver training with coral conservation studies.

Up until now, I had only ever dived in a lake back home and I loved the sensation of breathing underwater. My first dive in crystal-clear Indo-Pacific waters blew my mind. Thousands of brightly-colored tropical fish darted in and out of a vibrant coral reef. Twelve prehistoric-looking bumpheads lumbered by like a herd of buffalo, crunching away on the reef. A brave black-tip reef shark slipped up into the shallows to take a peek at us during the safety stop. We spent a good twenty minutes watching the unbelievable sight of two mating octopi and the end of the dive was just turtle after turtle after turtle. I was in heaven.

The days fell into a pattern of getting up at 7am and diving three times a day. The Divemaster course was a combination of working with students and fun divers, and studying my dive theory. Admittedly, most days by 'study' I mean crawl into a baruga (a traditional Indonesian gazebo filled with pillows) opening my books, and promptly falling asleep... only to wake up forty-five minutes before the dive, hop up to get everything ready and

*Batfish make a home on a thriving Biorock®  
The Trawangan Dive beachfront*

> SIX MONTHS OF PLODDING AWAY ON A CONSTRUCTION SITE IN THE COLDEST WINTER IN ENGLAND'S HISTORY IS WHAT IT TOOK FOR ME TO GET HERE. RIGHT FROM THE FIRST STEP OFF THE BOAT INTO 29° WATER, FEELING MY TOES SINK INTO THE SUPER-SOFT WHITE SAND, I KNEW IT WAS ALL GOING TO BE WORTH IT! THIS WAS TO BE MY HOME FOR THE NEXT 10 WEEKS AND IT WAS EVERYTHING I'D IMAGINED AND MORE.



be off again! The staff, both Indonesian and ex-pats, were like family and we took every opportunity to have a laugh. Trawangan Dive was set up right on the most picture-perfect beach imaginable and more than a few sunsets were spent in the pool bar. After two weeks, it was time to begin the conservation training.

I was excited to see the Biorocks® themselves. Currently, 40 of them surround the Gili Islands, and the main cluster makes up their own dive site off the south end of Trawangan. The Biorock® Process works by applying a low-voltage electric current to grow solid limestone rock structures in the sea and accelerate the growth of corals up to 5 times faster, thus providing homes for reef fish and protecting the shorelines. The limestone forms on a rebar structure and I was going to be allowed to design my own before my course was done.

It's hard to describe my feeling seeing them for the first time; half man-made, half organic - like a robot with a beating heart. They are amazing. At the very beginning of the dive are the first two structures put down in 2004. Completely covered with brightly-colored coral and home to an entire ecosystem of marine life, you can barely see the rebar structure underneath.

In only 6 years, these structures are a full scale, brilliant, healthy reef. They play host to particular marine life that seemed to love living on the Biorocks®. Razor fish, frog fish and a host of juveniles that were not common in other areas around the Gilis all took shelter here. Swimming from structure to structure, you can see where people have gotten creative - making Biorocks® shaped like mantas, airplanes, dolphins and turtles. The Biorocks®, some as new as a couple months and some more than 5 years old, give divers a 'before and after' tour. The rapid growth of the coral is undeniable. It works!

*This page:*

*Four years of growth on a Biorock®; Fisherman heading off for the day; There are no motorized vehicles on the island - you get around by bike or cidomo (horse cart).*

*Opposite page:*

*A traditional fishing boat; Tropical fish on a Biorock® reef.*



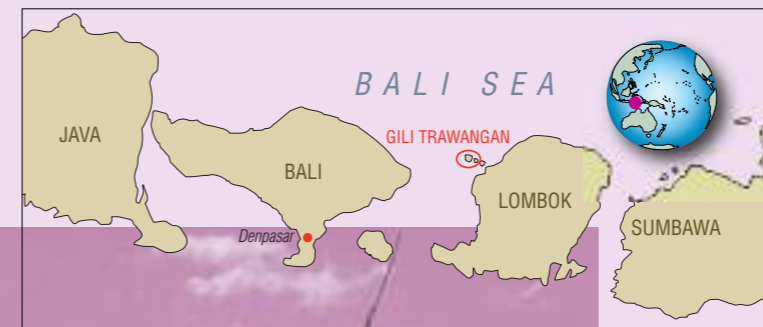
To find out more about Trawangan Dive & this incredible chance of a lifetime project visit

[www.trawangandive.com](http://www.trawangandive.com).

To be a part of the next International Biorock® workshop this coming November visit

[www.biorock-workshop.org](http://www.biorock-workshop.org).

To learn more about Biorock® technology and projects visit [www.globalcoral.org](http://www.globalcoral.org).



Between assisting instructors and doing Divemaster exams, I was diving on the Biorocks® every day. My job was to remove threats like Drupella snails and scrub off harmful algae. Connections were checked to be sure that they were wired correctly.

On all my dives, I was always on the lookout for beautiful and unusual corals that may have broken off that I could collect and attach to the structures. One afternoon was spent in a ridiculous struggle to save a giant over-turned table coral that turned out to be a lot heavier than we anticipated.

Much of the information we collected was to be submitted to Coral Watch. This area of the world is seeing higher water temperatures which causes coral bleaching, and we needed to submit the data for both the natural reefs and the Biorocks® in order to be able to record the resilience of the Biorocks® compared to naturally-occurring reefs.

Finally, before we left, we were able to design our own Biorock®. We chose to do a turtle. Trawangan Dive already had a huge turtle out in front of their shop and we wanted to do a smaller version in homage to the turtle hatchery next door to the dive shop. I can honestly say it was the best thing I have ever made. Even better, I can't wait to go back to Gili Trawangan and see the reef that we made. I know that in only a few years, it will be totally thriving and our little turtle will be a living part of the small coral fringed island that I will never forget.