Diving Back in Time

Underwater archaeologist Franck Goddio has devoted his life to discovering sunken treasures, lost cities—and a whole new way of exploring. Interview by Olivier Guez
Seddon and crew, using Deep Rover submersibles, explore the two-century-old wreck of British ship Royal George off the coast of the Philippines.
How did you come to be an underwater archaeologist?
Since childhood I've had a passion for history and archaeology. Furthermore, I adore the sea, especially sailing, which I practised for years in the Mediterranean. My family has seafaring roots.

You're referring to your grandfather, the famous French sailor Eric de Bisschop?
Indeed. His career made a big impression on me. Among a number of other feats, he made the Honolulu-Cannes journey in 1937-1938, on board a Polynesian open-sea double pirogue, the Kaiiiloka — the first catamaran in modern history, which he designed himself. His record wasn't broken until the beginning of the 1970s!

So your grandfather was your role model?
Yes, in a way — but he was interested primarily in the language of the Pacific people, in their migrations, in the study of ocean currents, and in the traditional seacraft of Polynesia. I was primarily fascinated by archaeology — on land as well as on water.
Lots of people are interested in archaeology and go sailing now and again, but rare are those who become underwater archaeologists. How did you get there?

In 1983, I took a year of sabbatical after having worked several years in Southeast Asia and in Saudi Arabia as economic and financial adviser for the United Nations and the French Ministry of Foreign Affairs. I wanted to take a break and devote myself to what was still just a hobby; and then very quickly realised that underwater archaeology was just in its infancy. Unlike land-based archaeology, where thousands of teams work on all the continents each year, underwater archaeology, due to obvious technological constraints, was at the time just a new science, developed only since the 1950s.

Where did you begin your first digs?

In Egypt, I met up there with subaquatic archaeologist Jacques Dumas, who was working in Abu Qur Bay to do research on L'Orient, the flagship of Napoleon's fleet that was sunk by Admiral Nelson in 1798. Dumas suggested that I dive with him — a baptism by fire, as it were. I was incredibly naive at the time: I was almost expecting to discover an intact wreck, perfectly placed at the bottom of the sea, the structure neatly cut out in clear waters.... But underwater, I saw almost nothing. The waters were murky; I could make out only a dark mass. I just followed Jacques and his bubbles. He dragged me toward a thick piece of wood a bit off to the side: the rudder of L'Orient. He was running out of air and went back to the surface. I stayed alone, and started to rub my hand along a plaque covered with sediments: then I discovered the inscription "Le Dauphin royal n°6." After going back up, I was confused, but Jacques was thrilled: He told me that I'd found one of the hinges that had escaped the changes to the vessel's identity — irrefutable proof that L'Orient had first been named Le Dauphin Royal under the monarchy and then Le Sans-Culotte during the French Revolution. For me, this discovery was an initiation! The virus was injected in me — forevermore, definitively. I started to assemble teams, and made contact with the Philippines government and the country's National Museum to conduct digs in its waters.

Why the Philippines?

I'd always been fascinated by Southeast Asia, particularly the ocean trade routes of China. The Philippines are a boîled-down version of all of that, of everything I'm passionate about: a seafaring people, a country scattered across 6,000 islands, ships from every age buried in the ocean, a nation that's key in the history of maritime trade, goods, and men, between the East, the Americas and Europe after the Spanish colonisation. To carry out digs there was a great chance to illustrate the history of the Philippines and the meeting of European and Asian cultures.

What did you find there?

Since 1985, we've discovered seven junks built between the 11th and 16th centuries, before the establishment of the Spanish. Then with colonisation appeared the famous Manila galleons: These ships, huge for their time, crossed the Pacific once a year between Manila and Acapulco, the principal port of the coast of New Spain, which is now Mexico. They carried fabulous Far East goods — spices, porcelain, ivory, lacquerwork, beeswax for the altar candles of the Spanish churches, precious fabrics like silk, notably from China and Japan — which were then transported by land to Veracruz, from where they were distributed on the galleons of the Indies fleet toward Spain, particularly Seville or Cadiz. The Manila galleons came back to the Philippines with silver from mines.

The San Diego and the San José, two of the galleons that you explored in this area — what did they tell you?

We found on them important sets of porcelain, often remarkably preserved, jars that contained the crew's food and drink, silverware from New Spain, Spanish navigational instruments.... On the San Diego, we discovered pre-Columbian pottery and gold pieces from the sultanate of Johore and silver coins from Mexico. Our explorations confirmed the intensity of trade of the first world economy in history, of the dawn of globalization of trade on what was the biggest commercial route in the world for 250 years, until 1831. In the Philippines, we also excavated two big British vessels of the East India Company: the Royal Captain and the Griffin.

How did you go about assembling the team you work with?

In 1985, I decided to devote myself full time to underwater archaeology. I founded the European Institute of Underwater Archaeology, which functions as a provider of services to the States. Very quickly, it brought together archivists, specialised divers, archaeologists, curators, geophysical engineers, and scientists of all kinds.

You leave nothing to chance, do you?

I dive very regularly, but never blindly! To begin with, we consult archives and interpret them. Then we do a geophysical survey in order to locate and map the sites as precisely as possible and to cover as many parameters as possible before moving into the water and undertaking digs. When I started to work on the Royal Captain I thought that, in principle, locating it would be easy. There was nothing easy about it. With the equipment of the time, to discover a ship would be a stroke of luck. Nothing was precise. So I decided to streamline everything to increase efficiency: It was necessary to build a big, stable boat, easy to manoeuvre with a shallow draft to avoid rocks. Thus was born the Kaimil, a catamaran that bore the name of the first catamaran built by my grandfather. But above all we needed new instruments to find the most precise possible location of wrecks. I entered into a partnership with the Commissariat Français à l'Énergie Atomique (CEA). Together, we developed means of extremely high-performing nuclear magnetic resonance detection that allow us to measure sea-floor relief and to capture the ghosts of potential ancient remnants. It's thanks to these apparatuses that we succeeded in finding the San Diego, sunk in the South China Sea after crashing into a coral reef, was several hundred metres down. We first found an anchor at 50 metres, and then the major site at 380 metres; certain parts had fallen to 960 metres.

But you can't dive down there, can you?

No, of course not. We used two little submarines.

The famous Jules and Jim?

Exactly. These little machines, three metres in diameter, allowed us to descend in ten minutes to 400 metres deep, where we worked with the submarine's mechanical arms. After several days, these arms were an extension of our hands. We worked nine hours a day in absolute darkness, using lights to carry out excavations and to photograph and film our work. It was an extraordinary spectacle.

After having dived and recovered treasures swallowed up by the sea, what do you do?

We clean and restore the objects; we study them; we publish papers and make films. Then we organise big exhibitions like that of the San Diego at the Grand Halle de la Villette and the one devoted to sunk treasures of Egypt that travelled to multiple cities around the world.

You're present at each phase of operation?

Absolutely. With the exception of archival research. I'm there, I lead everything from A to Z. I even participate in the design of exhibitions.

Submarines, ships, crew, researchers, ultramodern equipment, several-month-long expeditions, projects that go on for several years.... Considerable means are required to organise your digs. How do you finance your expeditions?
Goddia and a pilot operating the arms of the submersible to study the wooden remains of the Royal Captain wreck.
“Our submarines allow us to descend 400 metres in 10 minutes. Their arms become extensions of my hands.”
I've been lucky to have a unique and extraordinary sponsor since 1995: the Hilti Foundation, which supports my activities 100 percent, from chartering ships to restoring objects.

We've spent a lot of time talking about the Philippines. What about Egypt? You made some incredible discoveries there in the port of Alexandria and Abu Qir Bay. Like so many others, I've always been fascinated by Egyptian civilisation, its history and its myths. Starting in 1990 I offered, to the Supreme Council of Antiquities in Egypt, to establish a rigorous catalogue of the submerged parts of the mythic port of Alexandria from the time of its splendid clef under the Ptolemaic dynasty, when it was known as the Portus Magnus. Over these past 15 years, we've succeeded in discovering and in exploring the sunken cities of Canopus and Heracleon. It's there that we located, under two metres of sand, the 105-metre-long surrounding wall of the famous Temple of Serapis.

Did you find the famous lighthouse of Alexandria, the so-called seventh wonder of the world? I don't work that way: in my eyes, a good archaeologist shouldn't have preconceived notions and should be open to the facts that he discovers. After having carried out the complete topography of the area, we undertook archaeologic excavations on well-defined areas. We then compared the results of these digs with ancient texts, particularly those of Strabo, the great traveller and geographer from ancient Greece who stayed for several years in Alexandria. The infrastructures that we discovered conform to a perfect logic. The ancients had used the natural topography of places in outfitting port facilities perfectly adapted to docking, to the loading and unloading of ships, to entries and service via channels with military and commercial functions — and all of it associated with the presence of shipyards for constructing and repairing ships.

For the lighthouse, two sites today seem conceivable: one emerging at the end of the bay of Alexandria, at the site of Fort Quifit-Bay, built in the 15th century and indicated in the 18th century as the site of the lighthouse by an Arabic author. Such a location seems illogical, though, because a lighthouse in this place would not have been able to draw attention to dangerous reefs between the two channels. The other possible place would be an ancient islet situated between the two channels in the middle of reefs. Unfortunately, this place has been covered over by a large sea wall protecting the Bay of Alexandria. Alas, it's unlikely that the remains of the lighthouse will ever be found.

What have been your finest discoveries? That's a tricky question. Each year Egypt has formidable surprises in store for us. For example, an extraordinary discovery: a black granite-like slab — intact, sublime — covered in hieroglyphics. Its discovery put to rest a 2,000-year-old mystery: the enigmatic city of Thonis and the city of Heracleon, mentioned in different ancient texts as if they were different sites, were in fact one and the same city. Finding one of the lateral walls of the famous Naos of the Decades was also an extraordinary moment. On the other hand, in the Philippines, in one of the recovered sunken galleons, we have probably discovered the instrument that made it possible to define the country's longitude. And then the porcelain, often intact, under the floods... It's magic: The discovery of a shard can sometimes alter chronological benchmarks.

So in short, your most beautiful discovery is... everything you've undertaken in the past 25 years? Yes — it's a whole. My objective is to document history, to know more about sunken civilisations, to better understand the underside of history. Our discoveries allow the rewriting of history and a more acute perception of it. Every object that we exhumate allows us to bring it to life. Some riddles are solved. Others resurface. Interactions between cultures emerge: Greece and Egypt around Alexandria; the Far East, Europe, and the Americas around the South China Sea. But underwater archaeology is a discipline full of the unexpected — and sometimes discoveries impose themselves on you.

Do you consider yourself a romantic scientist? I'd rather say a passionate scientist.

Are you an adventurer? Adventure doesn't interest me. However, I admire the careers of Jean-Baptiste Charcot, the explorer of polar regions; of Paul-Émile Victor, the polar explorer; or of Théodore Monod, the naturalist scholar and desert specialist. These men had careers off the beaten path.

Have you had any close calls during the course of a dive? Once, around the time of the San José galleon dig, in about five or six metres of water, I got the feeling I was being watched. I thought there must have been a shark nearby, but every time I turned my head, I saw nothing, no one. And then suddenly I sensed something behind me. I turned around and saw the two eyes of an octopus more than a metre in size who wanted to see what I was doing on his territory.

Have you run into many sharks? Yes, but only from a distance. In reality, for a diver, the most dangerous fish are stonefish. They're poisonous and very difficult to spot.

You're at ease with underwater fauna and flora? It's pretty simple: I look, I respect, and I touch nothing. Sometimes, beautiful stories result: I dove one morning with black gloves with a yellow strip. Very quickly a black fish with yellow stripes approached me. It was like a little dog... It didn't leave me for three weeks! The whole team laughed a lot.

Where do you live most of the time? Between the Philippines, Egypt, Madrid, the US, and Paris. I spend a lot of time in planes and even more at sea.

Where are you coming back from now? The Philippines. I just spent 50 days at sea. There was abysmal weather, with enormous swells. We couldn't work for 39 days.

What were you doing there? Surveying reefs with the national museum of the Philippines.

What do you do when you're stuck on a ship, unable to dive because of bad weather? I work! In this case, for this last visit, on computerised cartography of Egyptian seabeds.

What do you read? History books, lots of scientific publications concerning my research. Very few novels — even though I'm partial to Umberto Eco.

And what are your next missions? I'm returning to Egypt very soon.

In what new part of the world would you like to undertake digs? In China. That would be a dream.