



"Crossing the Rubicon" sculpture
near Lanzarote, Spain

Deep Dive



An experienced crew navigated strict requirements and skeptical stakeholders to deliver a museum at the bottom of the sea.

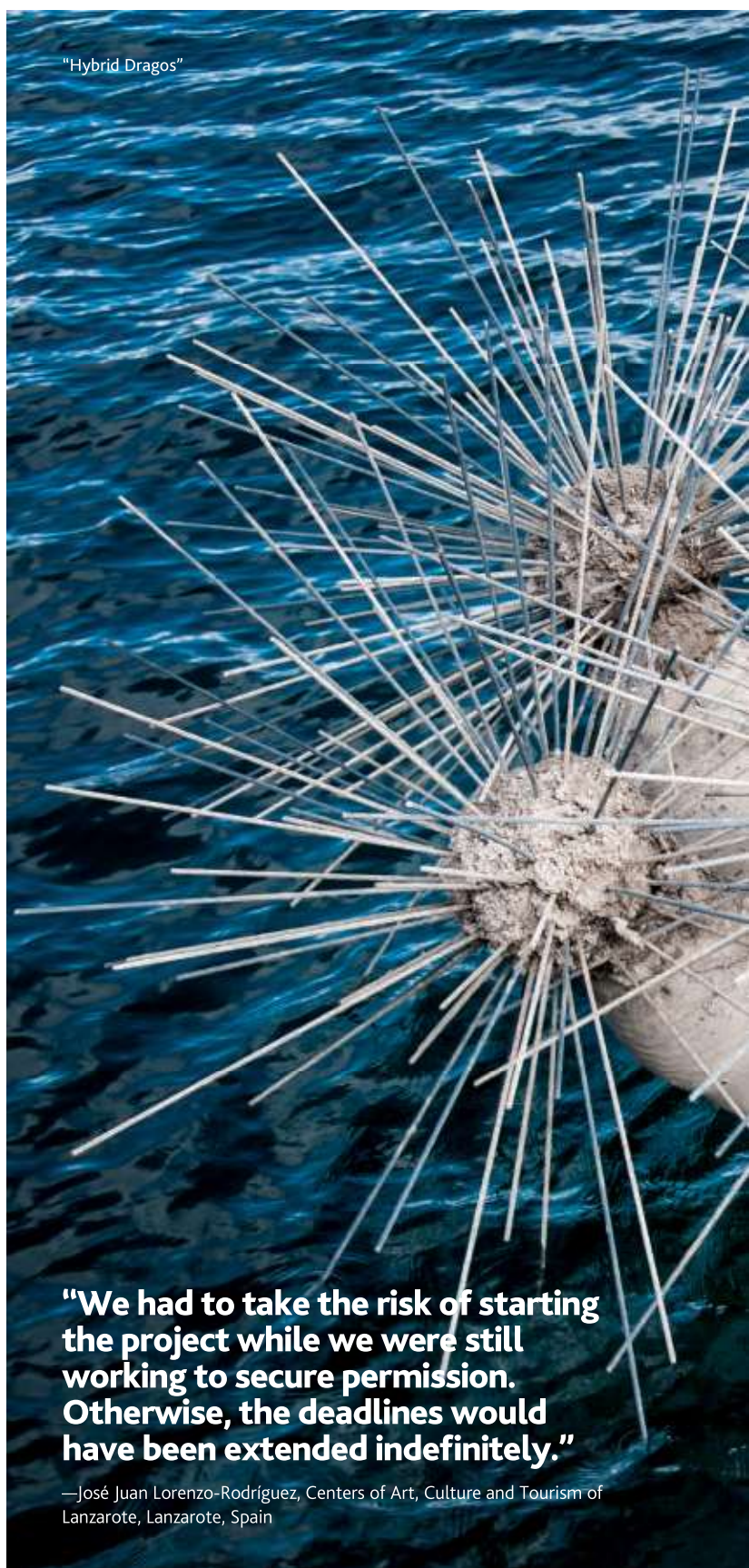
BY NOVID PARSI

When the last of Museo Atlántico's 300 sculptures were fastened to the ocean floor in January, there was little doubt that the installation—Europe's first underwater museum—would not only attract and educate tourists but also improve the fragile marine ecosystem.

From the very start, the three-year, €700,000 project off the coast of Lanzarote, one of the Canary Islands, was a relentless pursuit of ecological requirements and benefits. While the sculptures delivered dramatic commentary on how people use the ocean—one depicting a boat packed with refugees, another showing two businessmen playing seesaw on an oil pump—the installation had to, above all else, help the environment.

Leveraging lessons learned from British artist Jason deCaires Taylor's five previous aquatic installation projects, the team transformed the pH-neutral, corrosion-resistant concrete sculptures into a 50-square-meter (538-square-foot) artificial reef submerged 14 meters (46 feet) below the surface. The reef increases the number, richness and biomass of sea life, says project team member Javier del Campo-Jiménez, an environmental scientist from Dracaena Consulting and Environmental Projects, Las Palmas, Spain.

"The artificial reef now attracts an abundance and variety of underwater wildlife communities," he says. "And the residents see the project's benefits to the island's economy and its ecology."



"Hybrid Dragos"

"We had to take the risk of starting the project while we were still working to secure permission. Otherwise, the deadlines would have been extended indefinitely."

—José Juan Lorenzo-Rodríguez, Centers of Art, Culture and Tourism of Lanzarote, Lanzarote, Spain

ALL IMAGES COURTESY OF JASON DECAIRES TAYLOR/CACT LANZAROTE

Sink or Swim

The project's mission-critical tasks included:

Conduct extensive environmental tests to earn government permits for each phase.

Find an environmentally safe location for the museum that would be accessible only by divers accompanied by trained guides.

Address the concerns of skeptical island stakeholders.

Meet the Crew

The key project team members included:



Go With the Flow

The demanding regulatory process to gain government permits threatened to throw the schedule way off course and endanger the entire project.

The team conducted environmental studies at the outset to ensure the project met regulatory requirements. This research captured baseline data so the team could document the museum's environmental benefits at project close.

Resolution: In July 2014, the team decided to start work on the sculptures while it was still seeking regulatory approvals. Ultimately, the team saw little risk in having the artist start early, as it had consulted carefully with Spain's Ministry of Environment on all regulatory requirements for building its artificial reef on an unrestricted site.

The team secured all necessary government permissions by December 2015—just in time for the first batch of 60 sculptures to be installed.



THE ARTIST
Jason deCaires Taylor This was his sixth aquatic sculpture project.

THE SPONSOR
José Juan Lorenzo-Rodríguez, CEO, Centers of Art, Culture and Tourism (CACT) of Lanzarote

THE SCIENTISTS
Marta Marrero-Negrín, head of environmental monitoring, Dracaena Consulting and Environmental Projects

Javier del Campo-Jiménez, environmental scientist, Dracaena Consulting and Environmental Projects
Luis Guerra Bagaria, hydro-biologist and general manager, Jason deCaires Taylor Studio

“We knew to treat the residents as project collaborators and stakeholders.”

—Luis Guerra Bagaria, Jason deCaires Taylor Studio, Cancun, Mexico

The View From Shore

Some Lanzarote stakeholders—including two political parties and a workers committee—worry about the project’s impact from the start. Wouldn’t the museum harm the coastal ecosystem? And what if it didn’t deliver any economic benefits to the island?

Resolution: The project team addressed community concerns during public meetings to win over skeptical stakeholders.

- 2 percent of ticket revenue would go toward ecological research for the lifetime of the museum.
- The island’s existing network of diving professionals would be involved, and more instructors would be trained for full-time jobs as museum tour guides. (Lanzarote’s Centers of Art, Culture and Tourism has 30 certified diving centers and 150 local certified guides.)
- Roughly 100 islanders served as sculpture models to help local residents feel like project owners.



Installation of a section of a sculpture

TALENT SPOTLIGHT
José Juan Lorenzo-Rodríguez,
CEO, Centers of Art, Culture
and Tourism of Lanzarote

Location: Arrecife,
Lanzarote, Spain
Experience:
24 years

Other notable projects:

1) Waste treatment facility modernization for local Lanzarote government, a two-year, €59-million project that was completed in 2014. Mr. Lorenzo-Rodríguez served as project director.





“We wanted the project both to showcase our island’s underwater world and to help protect it.”

—José Juan Lorenzo-Rodríguez



Installation of
“The Raft of Lampedusa”

On the Radar

Finding the perfect installation location was all about navigating strict environmental requirements.

- It couldn't be near protected areas or the habitats of endangered species.
- It couldn't interfere with any natural reefs.
- It had to offer ideal wave and wind conditions. The museum could only be closed up to 10 days out of the year for extreme winds.

Resolution: The team went to great lengths to complete this task—including combing potential sites to ensure a protected species of sea grass wasn't growing there. It also leaned heavily on steps laid out in the Ministry of Environment's *Methodological Guide for the Installation of Artificial Reefs*, as well as feedback from environmental scientists at the Universidad de Las Palmas de Gran Canaria in Spain.

2) Cognitive tourism app for Lanzarote, a project that was completed last year. Mr. Lorenzo-Rodríguez was the project manager.

Career lesson learned:

“You have to have good communication to convey your project's benefits. And in underwater projects, good communications means showing stakeholders a positive representation of the project throughout.”



"Deregulated"



"Human Gyre"

Against the Current

Once the perfect ecological location for the museum was locked in, the team had to work around another challenge: Red Eléctrica, an organization that operates Spain's electric grid, was laying an electric cable near the museum site.

Moving the museum to another site was not an ideal option, as it would have wreaked havoc with the timeline.

Resolution: The team tweaked the installation's orientation. By rotating the rectangular grid 45 degrees, the team created a safe, 300-meter (984-foot) space between the installation and the electric cable. The team also established a restricted area that blocked boats and divers from getting near the cable.

"If we wanted to change the location, we would have had to start the entire process all over again. We would have lost years."

—José Juan Lorenzo-Rodríguez



Installation of another part of "Deregulated"

Depth Perception

January 2014: Lanzarote's tourism office launches underwater Museo Atlántico.

July 2014: Artist begins to make sculptures, while project team seeks regulatory approval from Lanzarote government.

June 2015: Project team launches final phase of public information campaign—a promotional video—to show local residents benefits of museum.



A Virtuous Cycle

The installation team also had to work around a protected seabird colony. The narrow work window—from mid-December through February, when the birds weren't breeding—didn't provide enough time to install all sculptures at once ahead of the January 2017 opening.

So the team split installation into two phases: The first 60 sculptures were installed starting in December 2015—and the rest were installed a year later.

Redemption: The team was able to conduct environmental tests before and after the first installation phase and document that the project was meeting its environmental objectives—even before the final 240 sculptures were placed and the project closed.

“We showed not only that the museum had no negative impact but also that, as an artificial reef, it had a positive impact on the biological communities by promoting marine life.”

—Javier del Campo-Jiménez, Dracaena Consulting and Environmental Projects, Las Palmas, Spain

February 2016:
First sculpture installation phase completed.



January 2017:
Second (and final) installation phase completed.

Water Worlds

Museo Atlántico artist Jason deCaires Taylor has completed five other aquatic sculpture projects around the world:

M.U.S.A. MUSEO SUB-ACUÁTICO DE ARTE

Location: Cancun/Isla Mujeres, Mexico

Installed: 2009

The 420-square-meter (4,521-square-foot) museum is divided into two galleries, each accessible by snorkelers, and features 500 sculptures.



OCEAN ATLAS

Location: Nassau, the Bahamas

Installed: 2014

The museum's only piece is the world's largest underwater sculpture. At 5 meters (16 feet) tall and 60 tonnes, the artwork had to be assembled underwater in sections.



VICCISITUDES

Location: Moilinere Bay, Grenada

Installed: 2006

The artist's first project—75 sculptures placed across 800 square meters (8,611 square feet)—was designed to divert tourists away from nearby Flamingo Bay, where a reef has been damaged by too many tourists.



THE RISING TIDE

Location: London, England

Installed: 2015

Sculptures of horses and their riders were installed on the shore of the River Thames. Water levels that change throughout each day affect how much of the sculptures are revealed.



ALLUVIA

Location: Canterbury, England

Installed: 2008

Sculptures of two female figures are submerged in a shallow section of the River Stour. Visitors can view them from the Westgate Bridge, and they are internally illuminated at night.

