BLUE LAB PRESERVATION SOCIETY

THE REEFLINE

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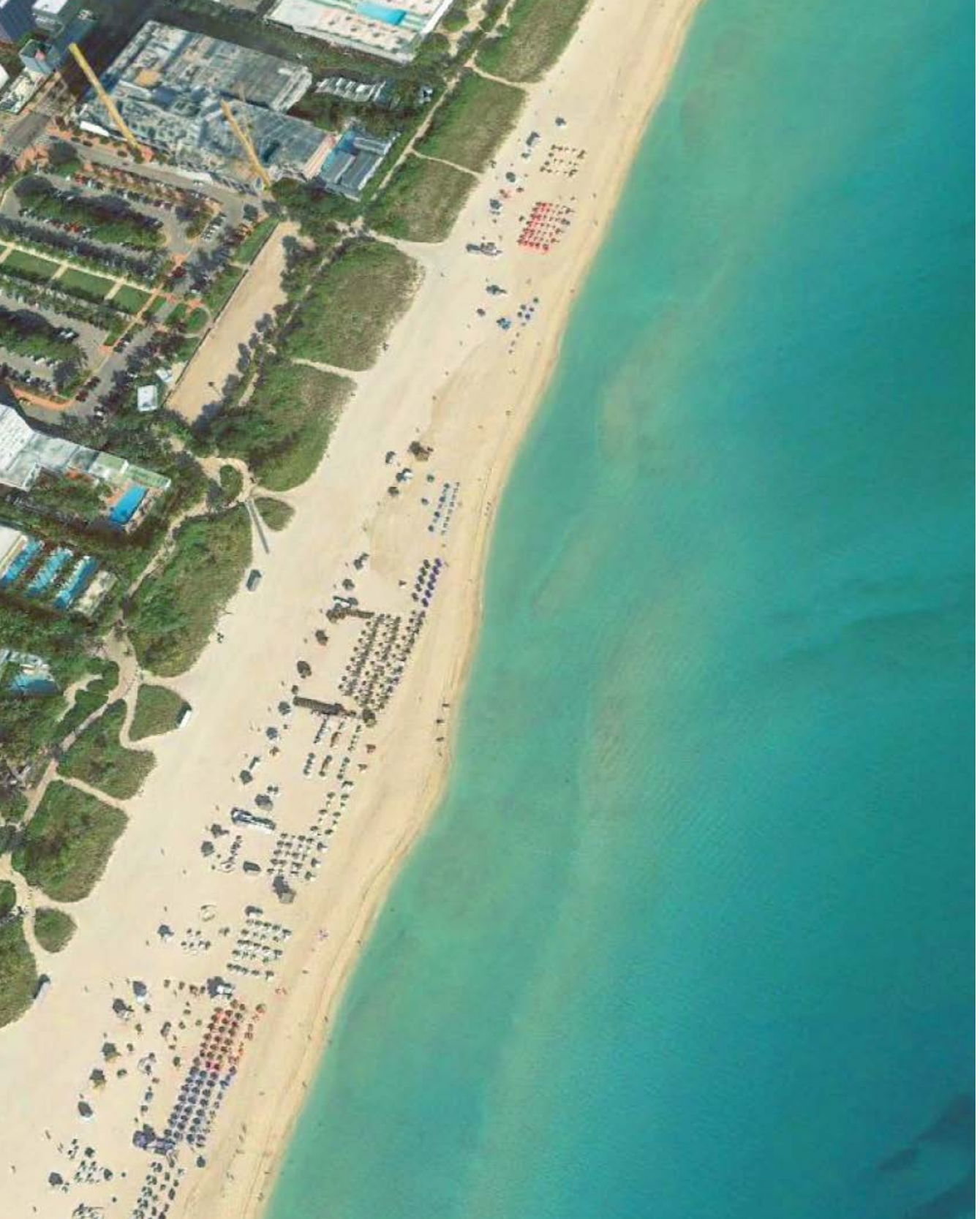
“This series of artist-designed and scientist-informed artificial reefs will demonstrate to the world how tourism, artistic expression, and the creation of critical habitat can be aligned. ReefLine is a singular investment in civic infrastructure, public art and environmental protection that will pay dividends over the coming decades and attract ecologically-minded tourists and art lovers.”

Ximena Caminos



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WHO

BlueLab Preservation Society in collaboration with the City of Miami Beach, Miami Dade County , CORAL MORPHOLOGIC and University of Miami

ARTISTIC DIRECTOR- XIMENA CAMINOS- Chair of BlueLab and HoneyLab

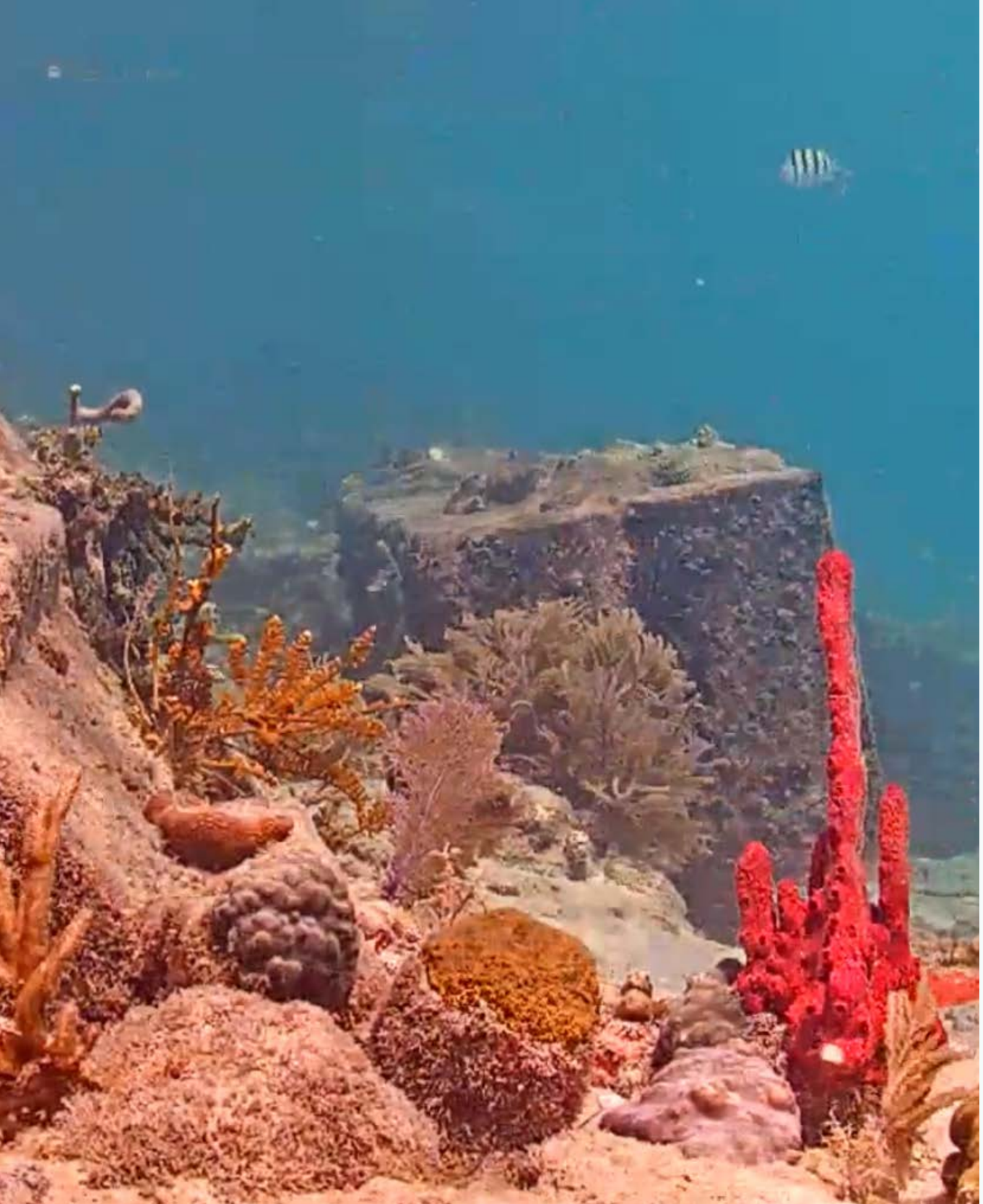
MASTER PLANNER- SHOHEI SHIGEMATSU/OMA

CURATORIAL ADVISORS - BRANDI REDDICK, JEROME SANZ

EXPERTS - Colin Ford - Coral Morphologic co-founder Marine biologist, coral aquaculturist, artist, and filmmaker
Xprize - Coral Restoration Team
Diego Lirman - PHD MArine Biology, “University of Miami’s ULINK Coastal Resilience Team
Cummings | Cederberg Coastal and Marine Engeneering
Coral Reef Conservation Program - Miami Dade
Michael Joaquim - Terreform ONE
Harvard GSD
Elizabeth Wheaton - Head of environment and sustainability for City of Miami Beach
Katherine Fleming- Vice Chair of BlueLab and Director of Bridge

WHERE

Approximately 9 miles long at completion, the sculptures will be placed in 15-20 feet of water parallel to South Miami Beach.



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WHY

Miami Beach is at the global forefront for arts, culture, coral science, and the need to adapt to climate change. The deployment of the Jose Cuervo Reef in May 2000, and a subsequent resolution passed by the City of Miami Beach (Resolution No. 2A003-25203) in April 2003, serves as a proof of concept, and demonstrates municipal support for the development of artificial reef structures just offshore South Beach. The current city administration has put environmental issues at the top of the agenda, providing the momentum needed to accomplish this project in a timely fashion.

HOW

The ReefLine will be developed through the support of the Knight Foundation, and matched by private philanthropists and art collectors, state artificial reef grant funding, and partnerships with local hotels and tourism boards.

The goal is to deploy several new sculptures each year, such that eventually a long snorkel trail will be formed interconnecting all of them to create the world's largest assemblage of sculptures designed by multiple artists underwater.

The ReefLine will also invite collaboration with scientists from the University of Miami, Harvard, NOAA, and other institutions to serve as a real-world research site for artificial reef development and design.

WHEN / PHASE 1

December 2024, 'Grand Opening' event during Miami Art Week / Art Basel Miami 2024

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OVERVIEW

Using materials that are approved by the State of Florida, selected artists will create iconic sculptures out of oolitic limestone and/or marine-grade cement that will create ecologically important artificial reef habitat and serve as a world-class snorkeling/diving attraction for Miami Beach.

The ReefLine will serve as a unique and site-specific installation that connects the artistic culture of Miami Beach directly to its surrounding marine environment.

The ReefLine is an investment that will quickly pay for itself by highlighting the fact that Miami is the only US city bordered by two National Parks, and has a unique marine environment just a stone's throw off it's world-renowned beach. Such an amenity will help attract a new demographic of environmentally-conscious travellers, while also demonstrating that Miami Beach is the most environmentally-aware art city in the world. The ReefLine will serve as a living monument to the current era of sea level rise and the need for rapid adaptation in a warming climate.

The ReefLine will also offer Miami's citizens the free opportunity to explore their local coral reef ecosystem without needing a boat to access it. BlueLab will work with PR experts to maximize media exposure of the project, which will result in global awareness for the project.

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REEFLINE INSTALLATIONS

BlueLab Preservation Society will curate a select group of artists for the first phase of underwater installations. We will limit the materials they can work with to limestone or cement, the most natural and common building material used in South Florida construction, and the material preferred by State and Federal agencies for artificial reef deployment.

Oolitic limestone and cement is well-proven for use as an artificial reef structure since the porosity and chemical makeup of the structure is ideal for coral growth and reef habitat. These materials also allow a wide variety of artistic interpretation that will catalyze the marine community that will begin to colonize it. Additionally, by working with local coral restoration groups, it will be possible to transplant nursery-grown corals directly to the ReefLine to further accelerate reef development and enhance biodiversity.

In order to protect the artists' sculptures, a barrier of concrete modules (or limestone boulders) will be deployed around them to lessen the impact of wave energy during storms and swells. Most importantly, these modules will create the actual 'Line' that connects all the installations and serves as a snorkel trail, while also greatly expanding the size and effectiveness of the artificial reef site. These modules will provide nooks and crannies that will quickly attract colorful tropical fish and coral larvae. This additional habitat will make the snorkelling experience much more engaging and exciting for guests who follow along from one submerged sculpture to the next.

PHASE 1

CONCRETE CORAL
BY LEANDRO ERLICH

CONCRETE CORAL

The natural evolution and permanent underwater incarnation of Order of Importance, a site specific sand traffic jam shown in Miami Beach during Art Basel 2019 (pictured above).

IIn the original exhibition, the “traffic” emerges from and then disappears into the continuous medium of sand. This work was developed as a rumination on the finitude of a certain way of life, in addition to a reflection on time and its power to transform. The installation will evolve under the sea as part of this dynamic project aimed at restoring Miami’s coral reef and its stunning biodiversity. The cars will evolve over time as they are colonized by marine life, and become critical habitat for coral reef organisms.

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This underwater incarnation of this installation, Concrete Coral, will offer an entirely new reading of the impermanence displayed in Order of Importance. As opposed to the sand cars shown on the beach, these submarine sculptures do not degrade over time. Instead, they will be colonized by life and merge with the natural environment. Our fear of being “underwater” (as a consequence of climate change) will also be transmuted into the generation of new homes for underwater lifeforms and the development of a new marine ecosystem. The structure of these human-made vehicles (a symbol of the climate-changing emissions that endanger our planet) will become new vehicles of environmental change. Concrete Coral’s stone sculptures will be silent, engineless, creating new life in our shared waters. In these challenging times, what could be more important?

PHASE 1 – Concrete Coral by Leandro Erlich

PHASE 2 & 3

OPEN CALL COMPETETION

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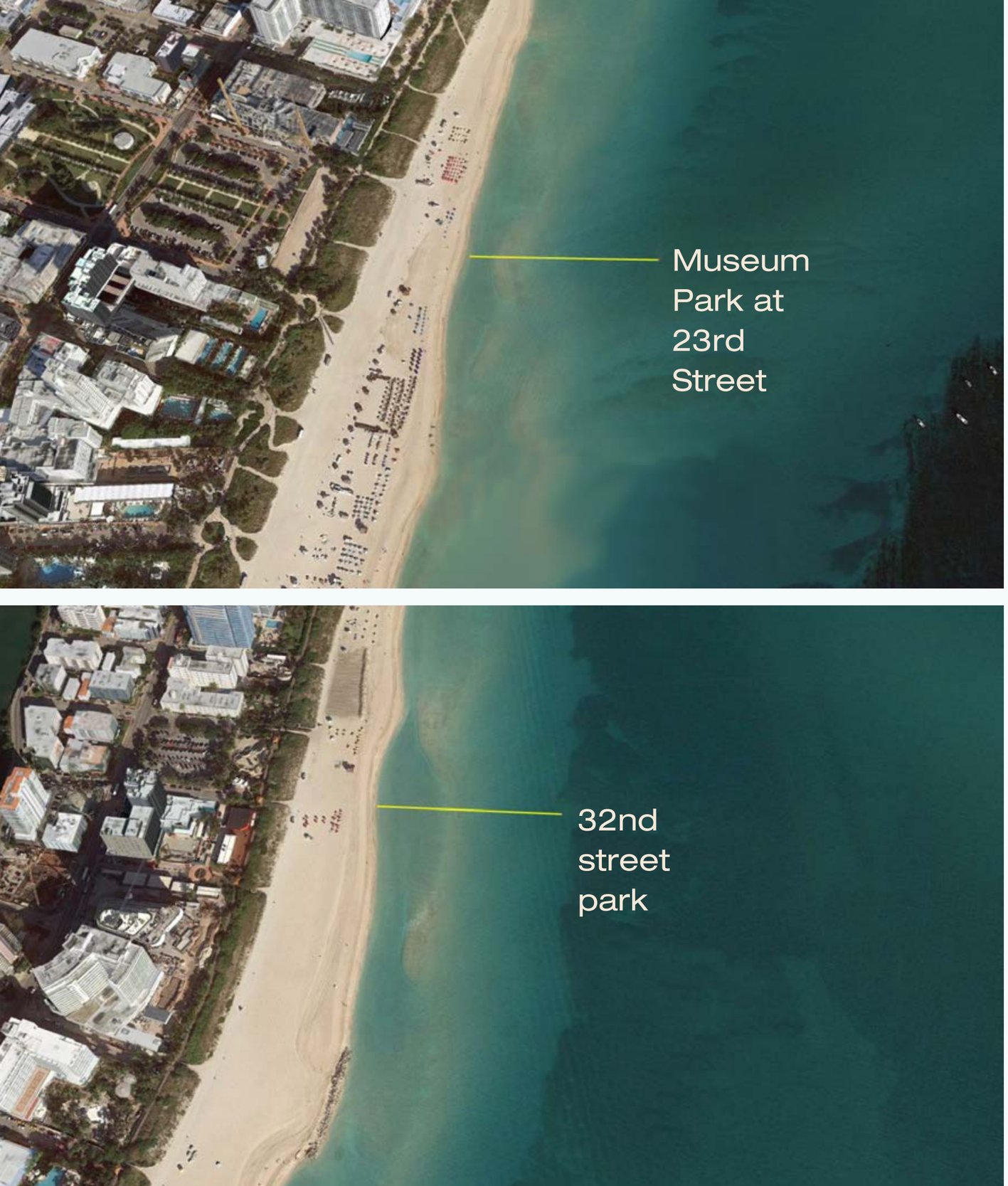
EXPANDING EXISTING ARTIFICIAL REEFS

A series of experimental artificial reefs were deployed by Nova Southeastern University 20 years ago just north of South Pointe Park to 1st street on Miami Beach marked with anchor icons. Without the markers, the artificial reefs can be seen as dark black dots against the lighter sand.

The goal is for the first phase of the Reefline to be deployed somewhere within this area. (Marjory StonemanDouglas Park, seen here, is our first choice) on Miami Beach such that it will be as accessible to the public as possible, just inside the swim buoys where beach sand has previously smothered the natural reef tract.

A wider view of Miami Beach clearly demonstrates how sand from previous beach renourishment projects on South Beach has washed back offshore, smothering the natural hard bottom reef as it moves northward. White areas are sand, dark areas are reef and colonized hardbottom. Note the plume of milky dredge silt from Government Cut in bottom right.

Satellite view of existing artificial reefs off Miami Beach (Nova Southeastern University experimental reefs with Phase 1 and 2 of The ReefLine shown to the north offshore Marjory Stoneman Douglas (2-3rd Street) and Lummus Parks (5-7th Street).



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EXISTING ARTIFICIAL REEFS

This satellite image perfectly encapsulates how the last untouched marine habitat 1/4 mile offshore Museum Park on Miami Beach serves to attract recreational usage by boaters, fishermen, and divers.

Zooming out further reveals how much of Miami Beach's nearshore hardbottom coral habitat has been smothered via the transport of sand that results from beach renourishment. The deployment of new artificial reef substrate and sculptures over this now-sandy bottom will serve to restore this once vibrant habitat.

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CONCLUSION

Investment in an artificial reef that is equal parts sculpture gallery, marine habitat, and snorkel/dive attraction is a cost-effective way at garnering significant media coverage for Miami Beach's green (and blue) ethos to enhance coastal resilience and provide critical marine habitat for reef organisms.

This project is a 21st century answer to Christo and Jean Claude's 'Surrounded Islands', which saw the artist duo surrounded the dredge spoil islands of North Biscayne Bay with bright pink plastic, that served to draw local and international interest in the marine habitats in the middle of a subtropical metropolis.

Whereas Christo and Jean Claude surrounded the natural with the artificial to raise awareness for Miami's native ecosystem, the Reefline will blanket the artificial with the natural, in the hopes of creating a more positive outlook for our City's future, through the development of artist-designed underwater worlds that will enhance coastal resilience and provide critical marine habitat for reef organisms.

Christo and Jeanne-Claude's 'Surrounded Islands' was a seminal work in establishing Miami's artistic and natural identity in the late 20th century. Similarly the ReefLine will redefine the city's identity for the 21st Century.

ABOUT BLUE LAB

The BlueLab Preservation Society is a 501(c)3 non-profit foundation with a focus on building positive community impact that will help address ocean pollution, water quality, climate change, environmental and social issues.

Led by its Chair, Ximena Caminos, The BlueLab Preservation Society uses art, science, culture and design as galvanizing channels for its sustainability program, developing responsive strategies and solutions with a clear core mission.

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MISSION

To educate and inspire global environmental action by directing funds raised through philanthropy towards innovative projects (domestic and worldwide), that seek to restore, reinforce, and protect coastal marine ecosystems, rivers, and lakes.

To support scientific research and non-profit initiatives that aim to protect the environment, promote responsible tourism development, implement sustainability programs, mitigate climate change, promote adaptation and resilience strategies, and the development of grass-roots environmental leadership initiatives.

To bridge the gap between philanthropists and the most promising environmental initiatives around the world. Particularly those that are in need of additional funding to scale-up projects that have been proven successfully at the local level. BlueLab works to supplement the budgets of programs that are otherwise dependent upon ever-shrinking governmental funding sources.

To activate and drive the spirit of venture capital fundraising towards projects whose return on investment is a healthier environment for future generations.

To promote the development and oversee the deployment of artist-designed artificial reefs, 100% environmentally friendly, meant to attract ecotourists in an effort to lessen the human impact on natural reefs, while also mitigating the footprint on sea level rise and beach erosion.

To support local, state, and national governments in the preservation of environmentally-sensitive areas, restoration of coral reef and mangrove habitats, management of fisheries, sustainability of ecotourism, and the cleanup of rivers, lakes and oceanic sources of pollution.

To create social opportunities that foster conversation between scientists, the tourism industry, engineers, artists, designers, NGO's, philanthropists, and the local and global community that results in the interdisciplinary cross-pollination of ideas and the implementation of environmentally-sound projects and practices around the world.

To promote Miami as a global hub of coral science, artificial reef

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ARE YOU ONE OF US?

We are a group of creators, thinkers, and leaders that have come together to collaborate and support projects that bring awareness, catalyze and create solutions to the world's largest problems.

welcome@bluelab.org

MIAMIBEACH

BLAVATNIK FAMILY FOUNDATION

BRIDGE

Knight Foundation