Artist Statement

The exquisite diversity and complexity of coral reef organisms provide myriad opportunities for scientific discovery and artistic inspiration. I am a visual learner, and first sculpted marine invertebrates to understand their anatomy and ecology better. As my skills developed and my studies led to fieldwork, I began to appreciate both the threats to coral reefs and the ability of art to evoke emotional connections to them. Perhaps if my work can influence others to appreciate the fragile beauty of our endangered coral reef ecosystems, we will act more wholeheartedly to conserve them.

Scleractinian corals (or "hard corals") lay the foundation of a coral reef. These colonial animals are able to precipitate calcium carbonate from seawater to form rigid skeletons that, over time, build off of one another to compose the vast, complex structures known as reefs. In fact, corals are so proficient at this chemical process that those within the Great Barrier Reef have earned the title of the world's "largest living thing."It is therefore no coincidence that my artistic medium incorporates calcium carbonate – a common ingredient in ceramic materials. Not only does the chemical structure of my work mimic that of a natural reef, but brittle ceramic anemone tentacles and coral branches break easily if improperly handled, similar to the delicate bodies of living reef organisms.

This large-scale ceramic coral reef wall installation is based on my interdisciplinary study of how art can inspire marine conservation. This project combines conservation science and policy, fine art, and social sciences. I interviewed marine researchers, artists, and marine professionals regarding their thoughts on the ability of art to promote coral reef stewardship and policy change. Prominent concepts that arose from my interviews – particularly those regarding human interactions with reefs – informed the design of this installation. Quotes from my interviews illustrate these experts' voices uniting to emphasize the critical importance of coral reef conservation to policy makers and the public.

Biography and Exhibitions

Born in San Francisco, California
Lives and works in Providence, Rhode Island

Education

2011 M.A. in Environmental Studies, Brown University, Rhode Island
2008 B.A. in Biology & Fine Art, Skidmore College, New York

Solo Exhibitions

2011 *Our Changing Seas*, Herbert Hoover Building, District of Columbia
2008 *Fragile Beauty,* Dana Science Center, Skidmore College, New York

Selected Group Exhibitions

2009 *Saratoga ArtsFest,* ArtsFest Center & Gallery, New York
2008 *California Clay from ACGA*, Art Space Gallery, California
Skidmore Student Exhibition 2008, Schick Art Gallery, New York
2005 *Skidmore Student Exhibition 2005,* Schick Art Gallery, New York
2004 *Shaped Clay 2004*, Everson Museum of Art, New York

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Notes

[1] Burke, L., Reytar, K., Spalding, M., and A. Perry. 2011. *Reefs at Risk Revisited.* Washington, DC: World Resources Institute <www.wri.org>.

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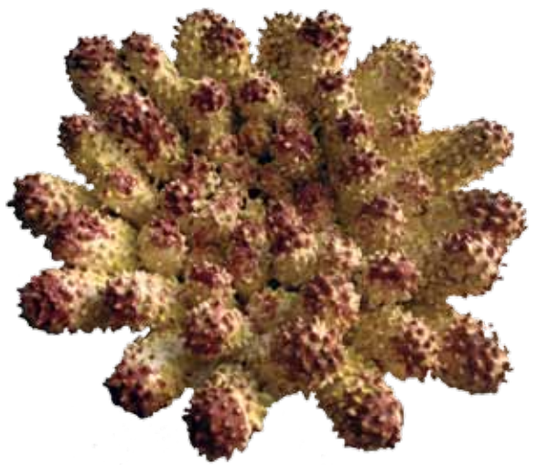
our changing seas

a coral reef story

by Courtney Mattison

"It's not just about the beauty; it's about the message behind the beauty, and losing the beauty of nature. I'm not just talking about gorgeous colors and shapes and the breeze going through your hair and the smells. I'm talking about the beauty of how all of the organisms in nature have roles to play and it's all dependent. There's a beauty in complexity that I think people also should be invited to come to grips with. Artists have a huge role to play with that, because you can bring that complexity into an aesthetic that someone can see and feel, even if they don't realize it at the time."

– Dr. Rich Mooi
Curator & Department Chairman
Invertebrate Zoology & Geology
California Academy of Sciences



Art & Biology Explore Nature
Two Approaches to the Same Message

Biologists and artists have much in common, but rarely collaborate. These two groups have been separated historically by choice and by culture, and often lack an exchange of ideas and techniques that could be quite helpful to both fields' goals. Systematic ecological surveys and artistic explorations of the natural world both depend on the same curiosity. Art and science are increasingly joining forces, more now than in the past because of their shared creativity and the critical importance of conveying accurate messages to the public about the natural world. I hope to discover how art and science can inform one another and combine to catalyze a public and political movement for coral reef conservation.

Coral Reefs: Exquisite, Valuable & Threatened

Coral reef ecosystems support 25% of the world's marine life, protect the coastlines of over 100 countries and territories from storm damage, and act as nurseries for many of our commercially important fish species. Reef health relies on a delicate balance of biotic and abiotic factors, including species interactions, water quality, and temperature. That balance is being disrupted largely by overfishing, pollution, and the emission of CO_2, which leads to climate change and ocean acidification. Human pressures on reefs have become so severe that 75% of the world's coral reefs are currently threatened.[1]

"[Coral reefs] are both highly diverse and super threatened; and they're also quite valuable economically... So, … it's kind of crazy that we could be … heading fairly rapidly into an era when there won't really be coral reefs to speak of as functioning ecosystems by the middle of this century."

– Dr. Nancy Knowlton
Sant Chair of Marine Science
Smithsonian Institution

"The ocean touches all of our lives, no matter where we are or where we live or what we do... A lot of people don't realize the connection between the little river or stream in their backyard and how that flows into a bigger river and into an estuary and then ultimately into the ocean."

– Dawn Martin
President
SeaWeb

What can we do to help?

The World Resources Institute (WRI) recently released *Reefs at Risk Revisited* – a comprehensive map-based report of global and local threats to coral reefs and their ecological and socioeconomic repercussions. This report suggests a series of actions we can take to aleviate these pressures. In areas near coral reefs, it's most important to reduce the local threats of overfishing and nutrient and sediment pollution (mostly from coastal farming and development). No matter where we are in the world, we can help by reducing our carbon footprints, choosing sustainably caught seafood, and supporting organizations and government initiatives that work to conserve coral reefs by creating new protected areas and promoting sustainable coastal development. By reducing local threats, we may be able to "buy time" for reefs while we work to ease the ominous global threats of climate change and ocean acidification.[1]
For more details on these issues and their solutions, check out the *Reefs at Risk Revisited* report at www.wri.org.