



museum of arts and design

CROCHET CORAL REEF: TOXIC SEAS BY MARGARET AND CHRISTINE WERTHEIM AND THE INSTITUTE FOR FIGURING FUSES FEMINIST ART PRACTICES, MATHEMATICS, AND CRAFT TO ADDRESS ENVIRONMENTAL THREAT TO OCEAN LIFE

NEW YORK, NY (September 15, 2016) – The Museum of Arts and Design (MAD) presents *Crochet Coral Reef: TOXIC SEAS*, on view from September 15, 2016, through January 22, 2017. The exhibition is part of MAD Transformations, the Museum’s fall exhibition series showcasing artists who have rethought and continue to reshape perceptions of traditional craft media. *Crochet Coral Reef: TOXIC SEAS* celebrates the 10th anniversary of the “Crochet Coral Reef,” an ongoing project by Margaret and Christine Wertheim and their Los Angeles–based organization, the Institute For Figuring (IFF), which addresses environmental threats to marine life through an ever-evolving handcrafted artificial ecology.

A non-profit dedicated to the poetic and aesthetic aspects of science and mathematics, the IFF was founded in 2003 by science writer and curator Margaret Wertheim and her twin sister, poet and writer Christine Wertheim, to employ craft practice in the service of activism. In 2005, in response to the devastation of the Great Barrier Reef in their native Australia, the Wertheim sisters began to crochet a simulation of healthy and ailing reefs mixing yarn with plastic trash. Using the algorithmic codes of crochet, the sisters produce crenellated forms representing hyperbolic geometry, which is also manifest in the undulating structures of corals, kelps, and other reef organisms.

The Wertheim sisters, aided by an international group of “Core Reef Contributors,” have grown and evolved the “Crochet Coral Reef” project. It has been exhibited nationally and internationally, resulting in large-scale collaborative works of coralline landscapes fusing mathematics, marine biology, feminist art practices, and craft. Curated for MAD by Assistant Curator Samantha De Tillio, *Crochet Coral Reef: TOXIC SEAS* offers a unique presentation of the project that focuses on climate change and ocean health.

“*Crochet Coral Reef: TOXIC SEAS* is a community-centered project that builds on the feminist tradition of using craft in the service of activism. Fiber, particularly knitting and crocheting, is often central to this practice because of its traditionally gendered affiliation with ‘woman’s work,’” said De Tillio. “Here, a group comprised primarily of women addresses the startling transformation of the oceans during the Anthropocene era through the Wertheims’ union of science, math, and art, giving voice to the ongoing environmental concerns of climate change and plastic trash in the oceans that haunt our coral reefs.”

“When Christine and I started the project a decade ago, we joked that if the Great Barrier Reef ever died out our crochet reef would be something to remember it by,” said Margaret Wertheim. “Now scientists are saying this might really happen, so the project is racing against time. Time is at the heart of our practice: it takes huge amounts of time to crochet these works, just as it takes huge amounts of time for coral polyps to grow actual reefs. It’s a slow process that can’t be

automated or mechanically reproduced. Living reefs, with their immense taxonomic diversity, have evolved over vast stretches of time, and so too the diverse ecology of our crochet reefs results from an ongoing evolutionary process in which our community of contributors continually expands and builds on what's come before."

This exhibition focuses on the presentation of three main "habitats":

- A giant *Coral Forest* and a collection of miniature *Pod Worlds* display the diversity of living corals through the varying textures, colors, and forms of crocheted yarn and beads. This section of the exhibition reveals how crocheted yarn can mimic the hyperbolic geometry of living reef organisms.
- The *Bleached Reef* and a brand-new *Toxic Reef* serve as invocations of dying corals. Acidification and warming of ocean waters lead to a phenomenon known as reef "bleaching." *Toxic Reef: CO₂CA CO₂LA Ocean* represents a subsequent stage of reef deterioration, with stark white protrusions indicating dead coral. Here the reef is also inundated with plastic and trash, symbolized by the use of videotape and by glittering litter on the simulated sea floor.
- Suspended from the Museum's ceiling in a fishing net, *The Midden* considers the impact of plastic waste on ocean ecosystems. From 2007 to 2011, the Wertheim sisters collected all of their domestic plastic trash, including bottles, takeout containers, and disposable shopping bags. They were inspired by the Great Pacific Garbage Patch, a vast area located in the northern Pacific Ocean near Hawaii, where millions of tons of plastic trash accumulate in a giant ocean gyre. As a uniquely personal record of two people's trash, *The Midden* is a stunning visual realization of the disposability of contemporary consumption.

EXHIBITION CREDITS

Major support for *Crochet Coral Reef: TOXIC SEAS* is provided by Michele and Marty Cohen. Additional support is generously provided by Nanette L. Laitman, Barbara and Donald Tober, The Coby Foundation, Ltd., and The Donald and Barbara Zucker Family Foundation.

RELATED PROGRAMMING

Encounters

Filigrees of Form: A Stitch in Time

Moderated by Suzanne Anker with Joseph DeGiorgis, Frank Gillette, and Margaret Wertheim

Thursday, September 22, 2016 – 7:00 pm

\$10 general / \$5 members and students

The Theater at MAD

Time is being accelerated as new technologies and biological degradation bring forth rapid alterations in nature—from genetic engineering to tissue culturing, from the incessant depletion of coral reefs and their ecology to botanical farming moving indoors. How can we adjust to these environmental changes? Can we propose a new arcadia, coupled with advances in mathematical models and their projections, or are some of nature's forms too complex to execute in that manner? Looking at biology as technology, our panel discussion will underscore

the sensitivities inherent in forms of living entities and the roles these forms play in knowledge production through art and science.

Suzanne Anker is a visual artist and theorist working at the intersection of art and the biological sciences. She works in a variety of mediums, ranging from digital sculpture and installation to large-scale photography to plants grown under LED lights. Her work has been shown both nationally and internationally, in museums and galleries including the ZKM, Karlsruhe, Germany; Walker Art Center, Minneapolis; Smithsonian Institution, Washington, DC; Phillips Collection, Washington, DC; P.S. 1, New York; J. Paul Getty Museum, Los Angeles; Medizinhistorisches Museum der Charité, Berlin; Center for Cultural Inquiry, Berlin; Pera Museum, Istanbul; National Museum of Modern Art, Tokyo; and the International Biennial of Contemporary Art of Cartagena de Indias, Colombia. She has hosted 20 episodes of *The Bio-Blurb Show*, an Internet radio program originally on WPS1 Art Radio, in collaboration with the Museum of Modern Art, New York, now archived on Alanna Heiss' Art on Air. Chairing the School of Visual Arts' BFA Fine Arts Department in New York City since 2005, Anker continues to interweave traditional and experimental media in her department's new digital initiative and the SVA Bio Art Lab.

Margaret Wertheim is the co-creator of the Crochet Coral Reef project, as well as a writer, artist, and curator whose work focuses on the intersection of science and the wider cultural landscape. Based in Los Angeles, Wertheim is the founder and director of the Institute For Figuring, an organization devoted to the aesthetic dimensions of science and mathematics. Through the IFF, she and her twin sister Christine Wertheim have created the "Crochet Coral Reef" project, which has been exhibited nationally and internationally at places including the Hayward Gallery, London; Andy Warhol Museum, Pittsburg; Science Gallery, Dublin; Cooper Hewitt, New York; the Smithsonian's National Museum of Natural History, Washington, DC; and the Museum of Arts and Design, New York where the project is currently on view. Wertheim's work has shown at the Walker Art Center and is in the current MASS MoCA exhibition *Explode Every Day: An Inquiry into the Phenomenon of Wonder*. She has authored six books, including *The Pearly Gates of Cyberspace* (W. W. Norton & Company), a history of Western concepts of space, and *Physics on the Fringe* (Walker Books), about the scientific equivalent of "outsider art."

Joseph DeGiorgis graduated with a Bachelor's in Oceanography and Marine Ecology from the Florida Institute of Technology and worked as a scuba diver for the Marine Biological Laboratory (MBL) in Woods Hole, Massachusetts. He spent time at the Harbor Branch Oceanographic Institute and at Harvard Medical School before obtaining a PhD in Neuroscience from Brown University. He was a Postdoctoral Fellow at the National Institutes of Health and is now a Professor of Biology at Providence College and Adjunct Faculty in the MBL Cellular Dynamics Program. DeGiorgis teaches bio imaging at the School of Visual Arts, New York.

Frank Gillette is the recipient of numerous awards, including fellowships from the Rockefeller Foundation and the Guggenheim Foundation, and grants from the New York State Council on the Arts and the National Endowment for the Arts. He was artist-in-residence at the American Academy in Rome in 1984–1985. His work has been presented in solo exhibitions at museums and galleries including Contemporary Arts Museum Houston; Corcoran Gallery of Art, Washington, DC; Howard Wise Gallery, New York; Leo Castelli Gallery, New York; and Whitney Museum of American Art, New York. In addition, Gillette's work has been included in numerous group shows, including at Documenta 6, Kassel, Germany; Museum of Modern Art, New York; Carnegie Museum, Pittsburgh; San Francisco Museum of Modern Art; and the Venice Biennale.

Families

Studio Sunday: Featuring Artist Studios Alumnus Maika'i Tubbs

Sunday, October 2, 2016 – 10:00 am to 1:00 pm

Come explore *Crochet Coral Reef: TOXIC SEAS* to learn why coral reefs are so important—and how we can protect them from disappearing. Then, join Artist Studios Program alumnus Maika'i Tubbs, who will show visitors how to create their own collaborative reefs filled with colorful creatures using recycled materials. Studio Sunday, held monthly, offers countless opportunities to learn and make. These intergenerational workshops allow families to work with teaching artists. Each Studio Sunday workshop is unique, and open to anyone ages 6 and up.

MADreads: A Literacy-Based Family Program

Thursday, December 15, 2016 – 10:15 am

Discover the joys of sharing with *The Rainbow Fish*, a children's book by Marcus Pfister, and explore the gorgeous *Crochet Coral Reef: TOXIC SEAS*. Free with Museum admission, MADreads is a literacy-based program for preschool children and their adult companions. Come read a story with us and explore a related exhibition!

Teachers

Teachers' Open House: Fall Exhibitions Preview

Friday, October 28, 2016 – 4:30 to 6:30 pm

MAD invites K–12 educators to attend a Teachers' Open House. Kick off the school year by exploring MAD's six newest exhibitions, highlighting artists who transform our perceptions of traditional craft mediums: *Crochet Coral Reef: TOXIC SEAS*; *Coille Hooven: Tell It By Heart*; *Chris Antemann: Forbidden Fruit*; *Voukos: The Breakthrough Years*; *Lauren Kalman: But if the Crime Is Beautiful...*; and *Françoise Grossen Selects*. Teachers will also participate in hands-on art-making workshops with Artist Studios residents.

Teachers' Professional Development: (Re)Making the Environment

Tuesday, November 8, 2016 – 8:30 am to 3:30 pm

Explore mathematics, marine biology, feminist art practices, and craft—and how these translate to STEAM classrooms—during this daylong professional development workshop. Teachers will view the exhibition *Crochet Coral Reef: TOXIC SEAS* with curator Samantha De Tillio, followed by a presentation by Artist Studios alumnus Maika'i Tubbs, who will discuss his work in environmental activism and share ways to inspire students with similar projects. In the afternoon, teachers will participate in a hands-on workshop while discussing themes of ecology and climate change. At the end of the day, participants will explore methods for incorporating similar processes in art classrooms and curriculum connections that can be made with other subject areas.

ABOUT THE MUSEUM OF ARTS AND DESIGN

The Museum of Arts and Design (MAD) champions contemporary makers across creative fields and presents the work of artists, designers, and artisans who apply the highest level of ingenuity and skill. Since the Museum's founding in 1956 by philanthropist and visionary Aileen Osborn Webb, MAD has celebrated all facets of making and the creative processes by which materials

are transformed, from traditional techniques to cutting-edge technologies. Today, the Museum's curatorial program builds upon a rich history of exhibitions that emphasize a cross-disciplinary approach to art and design, and reveals the workmanship behind the objects and environments that shape our everyday lives. MAD provides an international platform for practitioners who are influencing the direction of cultural production and driving twenty-first-century innovation, and fosters a participatory setting for visitors to have direct encounters with skilled making and compelling works of art and design. The Museum will be celebrating its Diamond Jubilee 60th Anniversary this year.

For high-resolution images, visit our press image archive:

<http://press.madmuseum.org>

User ID: mad

Password: media

#CrochetCoralReef #MADmuseum

[twitter/MADmuseum](https://twitter.com/MADmuseum)

[facebook/MADmuseum](https://facebook.com/MADmuseum)

[instagram/MADmuseum](https://instagram.com/MADmuseum)

youtube.com/MADMuseum

PRESS CONTACTS

Museum of Arts and Design
Claire Laporte / Hally Wolhandler
212.299.7737
press@madmuseum.org

Third Eye
Alexandra Israel / Katie Wisniewski
Alexandra@hellothirdeye.com / Katie@hellothirdeye.com