'You can see why an animal might mistake this for seaweed.'

– Elizabeth Ellenwood

## As plastic trash fills the ocean, Pawcatuck artist finds a disturbing source of inspiration By Tom Verde

Spring/Summer 2020 • 9



Top left: Ellenwood shows an anthotype photograph she made using fruit and vegetable juices. Photo: Tim Martin

Top right: Monofilament fishing line is tangled among seaweed found by Ellenwood on one of her beach walks.

Bottom right: Ellenwood is bundled up for a winter walk to collect beach trash. Photo: Tim Martin

The approximately 17-mile stretch of shoreline from Rhode Island's Charlestown Beach west to the Napatree Point Conservation Area is not quite artist Elizabeth Ellenwood's canvas. Yet it is her source of inspiration, not to mention, in many ways, her actual palette.

"Do you see this?" she asks, reaching down to tug a withered strand of black nylon rope from the sand, during a chilly, winter's morning walk at Napatree. It's just a few miles from her home just over the border in Connecticut, in the Pawcatuck section of Stonington. "You can see why an animal might mistake this for seaweed."

Further down the beach, her eye catches a translucent disc of sea glass, camouflaged among the sea pebbles.

"See? It blends right in," she says, as she picks up the glass and deposits it in her backpack. Even though sea glass may be derived from a natural material, it is not natural to this environment and so does not escape Ellenwood's eye, no matter how well camouflaged.

Pieces of rope, bits of plastic cutlery, tattered Ziploc baggies, strands of Mylar balloon strings: when they end up in the ocean and on beaches, all are worrisome to Ellenwood, 32, a recent University of Connecticut master of fine arts in studio arts graduate.





Yet, true to her profession, she channels that angst into her artwork which features ghostly and granular images of the beach trash she collects — more than 3400 items since she began her beachcombing in June of 2018 — rendered onto paper via historic and modern photographic methods. A driving purpose behind her stunning, even haunting artwork is to underscore the menacing threat of global ocean pollution.

"These objects have this afterlife that affects the water and animals," says Ellenwood. "They have this impact, and that's what I am thinking about."

That impact has been well documented. Each year, 8 million metric tons of plastic ends up in the ocean, according to a 2016 study published by the World Economic Forum. That's the equivalent of dumping a garbage truck full of plastic waste into the ocean every minute.

By 2030, it will be two truckloads, according to the study, and by 2050, startlingly, there will be more plastic waste, by weight, than fish in the sea. And despite alarming photos of such massive accumulations as the Great Pacific Garbage Patch — a 1.6 million-square-kilometer (617,763-square-mile) island of plastic trash seasonally migrating between the waters of Hawaii and California — significant amounts of microplastics pollute the entire world ocean as well.



Ellenwood stands next "Collection #25," a digital print of plastic trash in a Petri dish. The print was part of the "Among the Tides" exhibit. Photo: Tim Martin

Harmful to much aquatic life, microplastics are bead-like particles of plastic, the size of sesame seeds or smaller. They are the end result of larger pieces of plastic being broken down by the constant corrosive action of waves, water and sunlight. By some estimates, there are currently as many as 180 trillion particles of microplastics in Long Island Sound alone, according to University of Connecticut Marine Sciences Professor J. Evan Ward.

This crisis speaks to Ellenwood's lifelong love affair with the sea. Born in Westerly, R.I., she spent much of her childhood and early teens in Daytona Beach, Fla., where her father worked as a boat captain. One season, his work took him and his family to the Bahamas for six months where Ellenwood and her older sister were home schooled, a curriculum which included educational snorkeling trips through the tropical waters.

In Daytona Beach, the water was never very far away, and regular family walks along the shore typically involved "beach cleans" and observation of the maxim to leave the environment cleaner than you found it. Her high school years were spent in Waterford, Conn., where her mother's artistic talents as a ceramist clearly rubbed off on Ellenwood.

"In high school, I would often just stay in the art room and not go to my other classes, but at least my teachers knew where I was," she chuckles.

Unlike her mother, working with three dimensional objects did not come as easily as transforming objects themselves into artwork via the medium of photography. It's a passion Ellenwood pursued as an undergraduate at the New Hampshire Institute of Art (now The Institute of Art & Design at New England College) in Manchester.

It was there that she first encountered and was inspired by the work of 19th century English botanist and early photographer, Anna Atkins. Atkins was an early enthusiast of cyanotypes, a rudimentary photographic process in which cyan-blue images are created by laying objects on chemically treated paper and exposing them to a source of ultraviolet light, typically sunlight. When natural materials are used seaweed or algae, such as Atkins favored — the result is a ghostly, blueprintlike (blueprints in fact were made in the same way) image, essentially a negative of the original material.

Another contemporaneous process that appealed to Ellenwood are anthotypes. Objects, such as leaves, or photographs printed on transparencies, are placed on a piece of paper coated with a natural emulsion, such as berry juice. (Ellenwood has used blackberry juice or the juice of red cabbages from her mother's garden.) Exposed to sunlight over extended periods of time, the area of the paper not covered by the object or transparency fades, leaving behind a silhouettelike image of the original object.

To create her cyanotypes, Ellenwood uses the various pieces of beach trash she finds on her walks to create engaging photographic montages of items such as so-called "ghost nets" abandoned or discarded fishing nets — or tangled snarls of line and Mylar balloon strings. Her anthotypes also focus on environmental themes, such as a picture of a coral reef printed on a



Ellenwood hangs a collection of her cyanotype photographs for her "Among the Tides" exhibit at the Alexey von Schlippe Gallery at UConn Avery Point this winter. Photo: Judy Benson

transparency that is laid over blackberry juice stained paper. As the juice pigment breaks down over time, it leaves an impression of the coral image on the strikingly faded paper.

"The plant material, the juice, is sensitive to light, so it starts bleaching out the areas of paper that are exposed," she says. "When I was thinking about the coral reef bleaching I'm like, 'Whoa, this process is literally bleaching the print.' So this is a great representation of what's happening to the coral reef."

Ellenwood says she is not the first artist to be influenced by these early photographic methods and Atkins' pioneering vision. Nor, she is happy to acknowledge, is she the only

contemporary artist whose work focuses on the pressing issue of plastic pollution in the ocean and their threats to the environment. The scientifically informed, environmentally aware work of University of Hartford School of Art trained conceptual artist Mark Dion has been an inspiration. His "New England Cabinet of Marine Debris" - a nod to the Victorian-era "cabinet of curiosities," filled with wondrous oddities — features a classic New England kitchen sideboard filled with plastic refuse gathered on beaches. It was displayed last year at the Florence Griswold Museum in Old Lyme.

Another inspiration was the photographic art of Chris Jordan.

His arresting images of the plastic waste-filled carcasses of albatrosses on the beaches of the Pacific North West were another motivation for Ellenwood to artistically chronicle the effects of plastic pollution closer to home in New England, as well as Florida where she still visits.

Meanwhile, Connecticut Sea Grant has also long recognized the important role artists can play in raising environmental awareness. Since 2009, under the stewardship of Research Coordinator Syma Ebbin, the program has provided grants to 14 artists, most recently Ellenwood. Her project and exhibition, "Among the Tides," at the UConn Avery Point campus' Alexey von Schlippe Gallery last winter were funded, in part, by a Sea Grant arts award. While praising Ellenwood's "aesthetic transformation" of beach trash into art, Ebbin says she was particularly impressed with the way Ellenwood blends the aesthetic with the scientific.

"In creating her art, Liz works with scientists and integrates understandings gleaned from these experiences into her creative process," Ebbin says.

Ellenwood's "Collection #25", a piece featured in "Among the Tides" is a case in point. The striking 36-by-36-inch image is a full color scan of multiple pieces of plastic beach trash crammed into a Petri dish — a microcosmic examination of a macro-environmental issue.

Ellenwood says the work was inspired by a visit to the lab of



Ellenwood examines beach sand and pebbles under a magnifying glass to find plastic shards and records her findings in a small notebook. Photo: Tim Martin

friend and neighbor, Michaela Cashman, a doctoral student at the University of Rhode Island whose research focuses on microplastic detection and isolation in marine sediments.

"I loved the science tools she was using, the Petri dishes, all the labels, the microscopes," recalls Ellenwood, who was stunned by her first look through one of Cashman's microscopes at beach sand.

"It's so beautiful, and made me think that even though I had been focusing on macro-plastics there are a ton of microplastics I probably overlooked while going on beach walks," says Ellenwood.

> By blowing up the image of bits of beach trash in the Petri dish, she not only gets that notion "right up in the face" (as she puts it) of those looking at her work, the composition of Collection #25 itself renders the art scientific and mimics the experience of viewing sand under the microscope.

Like a scientist, Ellenwood also labels and catalogues her beach finds, photographing and geotagging each bit of trash with her cell phone before bringing it back to what might be described as her studio-lab at the main UConn campus in Storrs. There, she maintains careful records of the action of sunlight on her anthotypes, as well as

the impact of light and water on pieces of beach trash she keeps in specimen jars lining a shelf in front of a window.

While her work may drift across boundaries that have conventionally separated art from science and vice-versa, Ellenwood says she is equally happy to have her work viewed on a purely *ars gratia artis* (art for art's sake) level, or as conveying a deeper social and environmental message.

"Not everyone's brain works in the same way, and I think there is an opportunity for art to help people understand things," such as the harmful impact of macro- and microplastics on the world's oceans and waterways. Art, she concludes, "makes thinking about these things a little more inviting, a little more approachable."

**Editor's note:** In April, Elizabeth Ellenwood received notice that she has been awarded a 2020/2021 Fulbright Research Scholarship and an American Scandinavian Foundation Grant to travel to Norway. There, she will work collaboratively with Hans Peter Arp, an environmental chemist at the Norwegian Geological Institute, and Kaja Fjaertoft, a marine biologist at Passion for Ocean, to produce scientifically informed photographs focusing on ocean pollution. Congratulations, Liz!

See more of Tim Martin's photos of Elizabeth Ellenwood and her work at: https://seagrant.uconn.edu/2020/04/28/gallery-of-tim-martins-photos-of-elizabethellenwood/

Elizabeth Ellenwood's work is part of a virtual exhibit at The William Benton Museum of Art at UConn. To view the exhibit, visit: https://benton.uconn.edu/mfa-2020/ mfa-2020-studio-art/