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Peer reviewed|Thesis/dissertation

UNIVERSITY OF CALIFORNIA, IRVINE

Dolphins Swimming in the Cracks of Sidewalks

THESIS

submitted in partial satisfaction of the requirements for the degree of

MASTER OF FINE ARTS

in Art

by

Margaret Oakley

Thesis Committee:
Professor Antoinette LaFarge, Chair
Professor Amanda Ross-Ho
Associate Professor Jennifer Bornstein
Professor Simon Leung
Associate Professor James Nisbet

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ACKNOWLEDGEMENTS

The art that I make is relational, and relies upon help from and connection with many others, both human and non-human.

Thank you to the faculty and employees of the Art Department who worked very hard to keep this program alive during some of the most trying times in recent memory.

I must especially thank the members of my thesis committee for meeting me on the imaginal plane. Antoinette LaFarge worked with me these past three years in a way rooted in mentorship, support, and the best kind of challenge. You helped me grow as an artist, writer, and person. I am deeply grateful to have you Chair my committee. Amanda Ross-Ho's wonderful sense of humor, quick mind, unique material intelligence, and relentless capacity to go further helped me access a more complex material investigation in this work. Jennifer Bornstein's uncannily accurate intuitions, empathy, and encouragement gave me key stepping stones across some very difficult passages in this journey. Simon Leung's care with language, embodied politics, and omniscient perception were key in my finding a way to bring it all together. Our dream interpretation discussions were a surprise and delight. James Nisbet's study of and discourse on the intersection of art and ecology was deeply generative to my research. This art work grew out of a paper I wrote for his Art & Ecology Consortium Seminar at the Getty Research Institute.

Thank you to Rhea Anastas and Monica Majoli for conversations which were key in my finding a way of working as an artist.

I am grateful to the support of the Medici Circle Scholarship for the summer 2021 grant which funded my research into microscopic imagery of water.

Two women who work in water were key to the making of the exhibition. Thank you to Kara Nelson, Professor of Civil and Environmental Engineering at U.C. Berkeley, for your generous dialogues with me on so many different aspects of drinking water, from the scientific to the sacred. Many thanks to Kira Erquiaga for leading me on a tour of the Orange County Groundwater Replenishment System, a true astonishment in hydrologic engineering and social agreement, and for the thoughtful discussion with me about what we do with those leftover contaminants.

Thank you to the art students at UCI during 2019-2022 for inhabiting and invigorating this special place for making, thinking, and talking together. Gratitude to my 2022 cohort: Andy, Doris, Gosia, Hiroshi, Katherine, Tarik, Rahel. We pulled through this pandemic and finished the program together—which was no easy feat. May our text thread live beyond this time.

The making of the sculptures for this exhibition benefited from the generous minds and helping hands of Zack Benson, Jason Burns, Roger Fuentes, Liz Glynn, Samuel Scharf, Grant Speich, and Liz Stringer.

I want to thank the undergraduate students of my Art & Ecologies class for their sincere engagement during the winter quarter of 2022. Our conversations together were nourishing to my own art practice, and I was awed by your thoughtful work, made under very challenging pandemic-related circumstances.

I would especially like to thank Hao Wan and Peng Xue, the artist assistants to this project. It has been wonderful to know you both over these past months. Our conversations and work together shaped and built this exhibition. I look forward to seeing where the flows of life take you.

I would not have made it to graduate school for Art without the influence of artist friends I've met along the way. The late Alice Ko, who left us much too early, was my first art confidante. I'll always remember your elegance, mystery, and button necklace. The late Miyoshi Barosh, I miss you and think of you often, wondering what you would have made next. Thank you to Christopher Badger, forever art mentor and great enabler of the materialization of ideas. Your generosity of spirit and uncommon vim and vigor have often motivated me to act, and helped me to keep going.

Thank you to my dear friends Angie and Steve Bradshaw, Anabella Tidona, and Natasha Kharikova for their expressions of care, for feeding my cat, being my Covid Pod, and holding light with me during a very dark winter.

A very special thank you to Ann Walker, for teaching me about the Alchemical Fountain.

Most of all, thank you to Dani Elias for your love, patient support, profound humor, endless curiosity, and talking me home on those long night drives from campus. The world we make together is a world I want to live in.

ABSTRACT OF THE THESIS

Dolphins Swimming in the Cracks of Sidewalks
by
Margaret Oakley
Master of Fina Arts in Art
University of California, Irvine, 2022
Professor Antoinette LaFarge, Chair

During the making of the sculptures for this exhibition, I held in my mind what I identified as the poetic epochs of water: circulation, contamination, filtration, elimination, and renewal. These poetic epochs are imagined. They dance around and between the stages identified as the water cycle, or hydrologic cycle: collection, evaporation, condensation, and precipitation. These poetic epochs relate water with psychological cycles of processing emotions and experience. A cyclical nature is something that both humans and water share. Water, in its many forms, and as a living society of forms, offers us opportunities for transformation. We can become something else in our relationship to water. Sometimes our cycles can be vicious, but the momentum of the cycle is what makes us all creatures in and of motion, and in motion there is opportunity for change. Feeling into hydrosystemic entanglements for an expression of extensive connectedness, I've been re-evaluating ecological values, with cosmological aspirations. I am now convinced all the world is a fountain and people merely transports for water.

INTRODUCTION

This work was about the impossibly vast topic of water. About how much more there is to drinking water than H2O. The work itself required a feeling into hydrosystemic entanglements for an expression of extensive connectedness. After years of this kind of research, I am now convinced all the world is a fountain and people merely transports for water.

The sculptures in the gallery operate both as independent works about specific aspects of a relationship with water, and as an installation that is reaching for a sense of totality. Each element of the work has a lifecycle, and a pathway of circulation of its own.

The notion of the cycle is key to the conceptualization of the work. During the making of the sculptures, I held in my mind what I identified as the poetic epochs of water: circulation, contamination, filtration, elimination, and renewal. These poetic epochs are imagined. They dance around and between the stages identified as the water cycle, or hydrologic cycle: collection, evaporation, condensation, and precipitation. These poetic epochs relate water with psychological cycles of processing emotions and experience. A cyclical nature is something both humans and water share. Sometimes our cycles can be vicious, but the momentum of the cycle is what makes us all creatures in and of motion, and in motion there is opportunity for change. Water, in its many forms, and as a living society of forms, offers us opportunities for transformation. We can become something else in our relationship to water.

This project was born out of a grave concern for the situation with earth habitat.

Collective awareness of human-caused pollution and destruction of our shared resources has been increasing for centuries, yet we seem to be trapped in economic, political, and

social systems that won't let us, or our situation, change in the ways needed to bring about a more just and equitable world. The work at hand is to form a more nourishing relationship with the environment which we are made from and embedded within.

Although the making of this work draws from the vast well of information provided by science, the art takes a deliberate turn away from positivism. For several years, I've been re-evaluating ecological values, with cosmological aspirations. With one's back to material facts, one is left to face the shadowy and dim territory of what is not validated by scientific method. The irrational and the unconscious rule this territory, and imagination is one of the only tools that can operate here. I believe this is an important place to work in order to find the crucial opportunities for change.

These works are not stand-ins for something else. Their primary jobs are not to represent. Instead, each sculpture acts. They offer opportunity for a relational encounter with water in the reality of the exhibition. From the perspective of physics, actual reality is a radically ambiguous and ever-flowing quantum stew, the endless fluctuation of energy and information within the space of infinity. In this context, these works operate with a world-building mandate of sorts, and have the potential to provoke events or effects. Futurity is a key capacity of this exhibition—a more rhizomatic and less hierarchical future, where body and mind, human and environment are not conceptually separate.

Dolphins Swimming in the Cracks of Sidewalks

The only true response to the ecological crisis is on a global scale, provided that it brings about an authentic political, social and cultural revolution, reshaping the objectives of the production of both material and immaterial assets. Therefore this revolution must not be exclusively concerned with visible relations of force on a grand scale, but will also take into account molecular domains of sensibility, intelligence and desire.

—Félix Guattari *The Three Ecologies*



Figure 1 Dolphins Swimming in the Cracks of Sidewalks (May 2022) Installation view. Image by ofstudio photography.

Margaret Oakley

DOLPHINS SWIMMING IN THE CRACKS OF SIDEWALKS

Exhibition: May 14 - May 28 | CAC Gallery | Contemporary Arts Center | Bldg 721 | Gallery Hours: Tues - Sat | 12-6PM

1 A Blue Fire

stainless steel, copper pipe, pond pump, Yosemite stone, fountain basin, campus tap water | 5 x 4 x 9 ft

2 Kinds of Vision

low flow toilet, blue seat, video (8:57), micro-projector, parabolic speaker | 3 x 3 x 7 ft Song credit: Hildegard Von Bingen, 12th Century, "Ave Maria, O auctrix vite" (8:57) from *Canticles of Ecstasy* performed by Sequentia

3 Forces of Character I

Water Society: Pearson's Port collected March 29, 2022, glass apothecary jar, gift tape, institutional plinth | 5 x 2 x 2 ft

4 Healing Fiction

medical steel portable IV stand, plant life support plastic drip bag, ceramic kidneys, campus tap water, oyster shells, borax crystals, watercolor powder pigment, ceramic bedpan | 2 x 2 x 8 ft

5 Oblation Station*

Multiple species of Atlantic and Pacific oyster shells found on eBay and Etsy, institutional plinth, lime-soda glass dispenser and stainless steel spigot, oxygenated and alkaline purified water, opal flint, naturally occurring silica, ceramic bedpan, watercolor powder pigment, borrowed aluminum dye pot | 7 ft x 3 ft x 3 ft

*You are invited to drink this water from the provided oyster shells. The institution requires that you do so at your own risk. Shells on the pedestal have been cleansed. Place used shells into the pot to continue the cycle of reuse.

6 Creation ⇔ Destruction Myth

Powdered agar, campus tap water, pond liner, watercolor powder pigment, ceramic molecules after Leonardo Da Vinci's water atom coated in borax crystals | 5 x 2.5 x1.5 ft -

7 Daimon Bench

Art Department scrap plywood and lumber | 5 x 2.5 x 1.5 ft

8 Loose Ends

ceramic molecules after Leonardo Da Vinci's water atom, Finger Lakes extrusion clearflex PVC tubing, campus tap water, rusted pipe fittings from an Echo Park basement, watercolor drawings made during exhibition, ceramic teeth, Yosemite stone | dimensions variable

9 Forces of Character II

Water Society: San Diego Creek collected March 29, 2022, glass apothecary jar, gift tape, institutional plinth | 5 x 2 x 2 ft

Thesis Committee: Antoinette LaFarge (Chair), Amanda Ross-Ho, Jennifer Bornstein, Simon Leung, James Nisbet

Epic gratitude to artist assistants Hao Wong and Peng Xue.

Special thanks to Zack Benson, Jason Burns, Dani Elias, Roger Fuentes, Liz Glynn, Samuel Scharf, Grant Speich, and Liz Stringer.

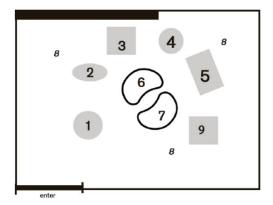


Figure 2 Exhibition List (May 2022)

stainless steel, copper pipe, pond pump, Yosemite stone, fountain basin, campus tap water $|5 \times 4 \times 9|$ ft

Circulation

I've asked many people where they imagine the best drinking water comes from.

Their responses include the same motifs: a mountain, a waterfall, and a notion of water that is purified in and by an idealized vision of nature. The notion of the pristine mountain spring holds sway in our imaginations.

I've had two conversations with Kara Nelson. At the start, I asked her how she thinks art could be helpful to her work. "I wish people could revere the engineering of the hydrologic cycle the way they revere this pristine natural spring they are imagining their water comes from," she responds after a brief pause. She works as a Development Engineer whose research focus includes detection, removal, and inactivation of pathogens in water and sludge; water reuse; nutrient recovery; drinking water and sanitation in developing countries; and wastewater-based epidemiology. We talk about how there's something unappealing, for most people, about the aesthetics of the technologies we use to treat water. Somehow the reality of the endless series of pipes, the UV filters, the passing from one concrete treatment pool to another—these mostly invisible states of contemporary industrial water treatment are not what people imagine, or want to imagine, as the source of the essential substance of hydration which we take into our bodies. Most people still seem to prefer buying bottled water, labeled with idealized images of flora, snow-capped peaks, and tree-lined lakes. Is there a yearning for water that comes from wild places, far from modern human activity and its industrial pollution? Is this in spite of the provenance

and lifecycle of the plastic water bottles themselves? They have their own chemicalmaterial interactions with the water they hold.

At the end of the conversation, Kara mentions that when she goes hiking in the Sierra Nevadas, she brings a special kind of filter that does not damage the unique structure of the water. I am intrigued by how this comment implicates her, a scientist, as a person with a capacity for the sacred. Or put in the terms of Freudian psychoanalysis, so often cited in art discourse: in seeking to protect the special properties of this water, she fetishizes an idealized notion of the natural. From reflecting on my own fetishized idealizations of the natural, I find there is something necessary to my own well-being in this fetishization. 'Fetish,' etymologically, derives from the Latin *facticius*, which means made by art. In our minds, or perhaps our psyches, we first make our relationship with nature. The making of that relationship is a kind of art. With Kara, I trace connections between imagination, nature, and art. I appreciate how she hesitates to tout her expertise in our conversations, and instead speaks with me from the position of a person trying to live in a thoughtful way, in this complicated society we have inherited and are making. I suspect this kind of humility is a professional strength.

Months later we speak again. I ask Kara to unpack this anecdote for me. What does this mean, the special structure of the water? What exactly does she not want to alter? "Well, it's not really scientific. You could try to break it down as molecules in the water, but there are limits on the scientific ability to do that. There are other attributes that we give water. There are these more spiritual properties that people tend to consider with water which comes directly from a natural environment. I feel that I am participating in this ritual

that people have been participating in for a millenia." As she speaks, the imagined mountain spring appears in my mind.

"Water has these properties," she says. "I suppose you can break it down materially, to a certain point." Her explanation of this has echoed in my mind during the entire making of this exhibition. "Water from one source is different from another source because of its interaction with the environment. Tiny bits of organic matter, little parts of leaves and insects, might be biodegrading. There are minerals from the rocks. Microorganisms. There is the big hydrologic cycle. Then there is the cycle of life that happens through our water." Kara's UV treatment pen uses wavelengths that only damage the DNA of the living organisms in the water but doesn't affect much else.

I am now considering hydration—the quenching of thirst—as an historical process, a bodily process, and a psychic-emotional process. We live and die amongst these hydropsychic entanglements. I am left with notions of a pulsing, simultaneity of events which are the special properties of water. I try to hold onto these notions, which are more like sensings and feelings within me, during the material investigations which ultimately are the making of the exhibition. The dramas of these interactions of water with its environment are what make it most able to hydrate.

Kinds of Vision

low flow toilet, blue seat, video (8:57), micro-projector, parabolic speaker | 3 x 3 x 7 ft Song credit: Hildegard Von Bingen, 12th Century, "Ave Maria, O auctrix vite" (8:57) from Canticles of Ecstasy performed by Sequentia (2017)

Contamination

Water is from a living source. Waters springing forth from their source wash away all filth. If there is blood and water in a person's eye, from either old age or an infirmity, one should go to a river or pour fresh water into a vessel. Leaning over, he should take the moisture of this water into his eyes. That moisture will stir up the water drying up in his eyes and render them clear.

—Hildegard Von Bingen, Physica

Hildegard of Bingen was a 12th century German Benedictine abbess and polymath active as a writer, composer, philosopher, mystic, and a medical writer and healer during the High Middle Ages.¹ Throughout her life, Hildegard had visions, and toward middle life she was compelled to write them down:

When I was forty-two years and seven months old, a burning light of tremendous brightness coming from heaven poured into my entire mind. Like a flame that does not burn but enkindles, it enflamed my whole heart and breast, just like the sun that warms an object with its rays....A voice from heaven was saying, O weak person, you who are ash of ash and decaying of decaying, speak and write what you see and hear. Since you are timid about speaking, and simple in your explanation, and unskilled in speaking and writing about these things, speak and write...as one who hears and understands the words of a teacher and explains them in his own way.²

Hildegard's second written work, which she originally titled *Subtleties of the Diverse Qualities of Created Things*, is a book of medicine covering nine sections. These include plants, elements, trees, stones, fish, birds, animals, reptiles, and metals. The book was later titled *Physica* in the 16th century. The word "subtleties," used in Hildegard's original title,

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 $^{^{\}rm 1}$ Information about the life of Hildegard Von Bingen can be found at https://en.wikipedia.org/wiki/Hildegard_of_Bingen

² Bingen, *Physica*, 1.

refers to secret powers hidden in natural creatures for the use of human beings, revealed via direct transmission from the Divine. Hildegard was driven by her vision to communicate her own relationship with the natural world for the purposes of healing. Her remedies for ailments came from the environment in which she lived.

Nearly a decade ago I had my own numinous vision of water. I encountered water in the toilet in such a way that my relationship with water was changed, forever. I was sick one day, and I sat on the floor of my bathroom. Facing the toilet bowl, with just water and the porcelain before me, I saw that the water was alive. I saw moving geometric structures that were the living pattern of the society of water. I felt the awe and terror which others have talked about when they encounter the sublime. I took a bath and saw there, too, that the water was alive. All over my apartment, every source of water revealed its living pattern to me. O weak person, you who are ash of ash and decaying of decaying, tell of what you see and hear. Communicate your vision.



Figure 3 Kinds of Vision. Detail view. Image by ofstudio photography

Forces of Character I

Water Society: Pearson's Port collected March 29, 2022, glass apothecary jar, gift tape, institutional plinth $\mid 5 \times 2 \times 2$ ft

Forces of Character II

Water Society: San Diego Creek collected March 29, 2022, glass apothecary jar, gift tape, institutional plinth $\mid 5 \times 2 \times 2$ ft

The idea of 'society' has revolved around human beings and their special place in the world, given their capacity for reason and language. Though this idea of society is still largely attributed to human relationships, in recent times we can see the emergence of non-humans being evaluated in terms of their contributions to the development and maintenance of society.

—Vanessa Watts, "Indigenous place-thought"

On the first day of constructing this work together, March 29 of 2022, Hao Wan, Peng Xue and I walked down to the creek which runs behind campus. With 1.5-liter glass jars filling our hands, we crossed University Drive and hopped across rock to collect running water, stagnant water, and organic material from San Diego Creek. Here was a small sense of wild water near campus, with swaths of mulefat in quiet bloom all around, though I know it to be a carefully managed biological reserve.

Back in the studio, we gently poured the collected water and sediment into a large apothecary jar. Hao made an airtight sealed for the lid with blue gift tape. Then we cleaned our collection jars and got into my car, driving to where the creek meets the sea—an estuary at the end of Jamboree Road. Peng had identified a small fishing spot called Pearson's Port as our collection site for the second apothecary jar. We were the only people there that day. A few giant oyster shells were washed up on the shore.

In the spring of 2021, Dani showed me a YouTube video about the making of an ecosphere.[1] Two of many comments under the video:

why have a fancy colourful fish when you can have dirty sewer water that somehow springs life, right???

Quarentine has got to me and well I'm making an ecosphere.

In May of 2022, in the gallery, the glass of the jars act as a kind of magnifying glass, and the tiny inhabitants of these isolated water societies become visible. Time is both sped up and arrested in these jars. Life cycles bloom and die hourly. Dramatic changes sometimes happen daily. The Pearson's Port society turned black within a few days of its making. While the jar sat in the gallery for the exhibition, an ethereal, webby white slime attached itself to structures of its terrain. Our San Diego Creek jar maintained more stable, brownish-tint to the water, with tiny, shrimp-like creatures swimming about, and small fly-like insects hatching and blooming on the surface of the water, in the air space.

During their time in the gallery they received only artificial light. The societies are meant to receive indirect light. Soft ultraviolet exposure nourishes their worlds. I worried for them. I felt responsibility for the creatures in these jars. They have lived in a society modified by and for this art project. I am uncomfortable with how I have put their world on display, as artifact, as perhaps even a freak show, in the gallery. What to do with these living worlds after the show? They are now an new entanglement of creature and environment. I asked Hao and Peng to join me again, just as we did in the beginning, to put them back from where they came, or as close as we can get. Now we put back something quite transformed, and it may in course transform the site in which it placed. The cycles continue.

In our discussion of the water societies, Antoinette LaFarge tells me of an episode of *Radiolab*. An experiment with water in barrels was conducted multiple times, revealing

that these enclosed ecosystems contain an unpredictable dance of chaos.³ As a theoretical ecologist states, "chaos is the system which is high in predictability on the short term, but cannot be predicted in the long term. And the weather is actually the best example for that." How little we know. How little control we actually have, despite what our senses might tell

us.



Figure 4 Hao Wong and Peng Xue (2022). San Diego Creek. Image by Margaret Oakley.

³ https://radiolab.org/episodes/life-barrel

Healing Fiction

medical steel portable IV stand, plant life support plastic drip bag, ceramic kidneys, campus tap water, oyster shells, borax crystals, watercolor powder pigment, ceramic bedpan | 2 x 2 x 8 ft

Filtration

Hippocrates' sleeve is a water filter devised by the Greek physician Hippocrates of Kos who lived from about 460 BCE to 375 BCE. At that time, most people attributed sickness to superstition and the wrath of gods. Hippocrates taught that all forms of illness had a natural cause. A piece of cloth stitched into a conical shape captures sediment in the water that runs through the fibers of Hippocrates' sleeve. The water is then subsequently boiled, and given to patients.

The Yellow Emperor's Inner Canon (<u>Huangdi Nei Jing</u>) is one of the oldest Chinese medical texts. Compiled around the first century BCE, during the Han Dynasty, it consists of a series of dialogues between the Yellow Emperor and his ministers. These conversations address the relationships between humans, their environment, pathology and vitality, the cosmos and the body, and how to diagnose and make therapeutic decisions in light of these factors. The work was notable in its rejection of spirits and the use of magic.

Water is absorbed through the small intestine and circulates into the bloodstream. Kidneys purify blood. They remove nitrogen waste products and excrete them in the urine. Kidneys control fluid and ion levels in the body through this filtration process. In traditional Chinese medicine, the kidneys store one's *jing*, which roughly translates to essence, a concentrated kind of life force and vitality. Jing is rare and precious. It cannot be increased. The only way to preserve its energy through a balanced lifestyle.

Creation ⇔ Destruction Myth

Powdered agar, campus tap water, pond liner, watercolor powder pigment, ceramic molecules after Leonardo Da Vinci's water atom coated in borax crystals $\mid 5 \times 2.5 \times 1.5$ ft

Elimination

Impurity, as far as the unconscious is concerned, is always multiple, always abundant; it has a polyvalent noxiousness. From this point on, it is understandable that impure water can be accused of all possible misdeeds. If, for the conscious mind, it is accepted as a simple symbol of evil, as an external symbol, for the unconscious it is the object of an active symbolization that is entirely internal, entirely substantial. Impure water for the unconscious is a receptacle for evil, one open to every evil; it is the substance of evil.

—Gaston Bachelard, *Water and Dreams*

At my tour of the Orange County Water District's Groundwater Replenishment System, I wear a hard hat and walk the site with Kira Erquiaga. This is the world's largest advanced water purification system for potable reuse. The website tells a story of heroic feats of engineering, successful political and social contract. I am walking through a system that accomplishes the goals it was designed for. "Operational since January 2008, the Groundwater Replenishment System is a state-of-the-art water purification project that can produce up to 100 million gallons of high-quality water every day. This is enough water to meet the needs of nearly 850,000 residents in north and central Orange County, California. The GWRS is a joint project of the Orange County Water District (OCWD) and the Orange County Sanitation District (OC San). These two public agencies have worked together for more than 40 years. They are leading the way in water recycling and providing a locallycontrolled, drought-proof and reliable supply of high-quality water in an environmentally sensitive and economical manner." This text, and my in-person tour of the system, makes me feel like our water problems here in Southern California are solvable. What is not included in this text is the history of the land. The Gabrieleno peoples who lived here with

the river we now call the Santa Ana. How did they engage with the special properties of the water? What were their methods of filtration and reuse?

Kira is the Senior Communication Specialist. She has worked on this project since its ideation phase in the 1990s. She tells me how community outreach was an essential labor to gain public support for the system's construction: "We considered the medical and environmental communities to be key stakeholders, and focused on gaining their support, first." I am thinking about stakeholders of water within a more entangled notion of society. What about the miniscule, shrimp-like creatures that swam in the jar of San Diego Creek in the exhibition? What would their stakeholder position be?

It's the life of the contaminants which intrigues me the most. On the tour I learn that after the many stages of filtration and treatment, the many attempts by cutting-edge technology to eliminate harmful substances, there is still this matter that cannot be contended with. We must, ultimately, release it to systems not made by humans—in other words, nature. In a follow-up note, Kira tells me: "In terms of the contaminants that are removed during reverse osmosis, which is the stage that extracts the contaminants into a brine that is sent back to OC San and then out to the ocean, they are: pharmaceuticals, viruses and dissolved minerals." These irredeemable substances are sent through a four-mile-long pipe that runs into the ocean off the Orange County coast, and released into the welcoming endlessness of Mother Ocean, with only the prayer of the pipe to send them away. Oh gods of the ocean, please absolve and protect us from these execrable materials of our own making. There are some things mere mortals cannot overcome. We release these back into the unknown, as substances of evil to be transformed by powers greater than ours.

Oblation Station*

Multiple species of Atlantic and Pacific oyster shells found on eBay and Etsy, institutional plinth, lime-soda glass dispenser and stainless steel spigot, oxygenated and alkaline purified water, opal flint, naturally occurring silica, ceramic bedpan, watercolor powder pigment, borrowed aluminum dye pot | 7 ft x 3 ft x 3ft

*You are invited to drink this water from the provided oyster shells. The institution requires that you do so at your own risk. Shells on the pedestal have been cleansed. Place used shells into the pot to continue the cycle of reuse.

Renewal

I have long held this urge to offer people a place to drink and a place to rest when they make the long journey to look at my art. I get tired and thirsty after making long treks to look at other people's art. I get tired and thirsty often. I feel that the facts of our bodies should be more acknowledged in the societies in which we live.

May I offer you the most beautiful water I can muster? To drink out of the most beautiful vessels I can find? Soft animal bodies created these forms by pulling calcium from the sea. They built hard carbonate bodies with which they grew together, over time.

I realize this offer of water is an agreement, and your drinking here an act of trust.

Your coming here to look, touch, and drink are a joining with me in an embodied discourse, within a material territory of inexhaustible event.

Daimon Bench

Art Department scrap plywood and lumber | $5 \times 2.5 \times 1.5$ ft

Peng sends me a text a few weeks before we open the exhibition. It is a follow-up to a conversation we have been having in the studio, started on our first day of working together.

In China, we have a saying. "Man struggles upwards. Water flows downwards."

Water flows downwards due to the gravity. It's a natural phenomenon.

Man struggles upwards because people want things to turn out nice.

They want to fulfill their life goals.

The meaning of the saying in its original context is very positive.

It's calling for people to pursue their goals.

However, there is another way to interpret the second part of the saying.

I think people nowadays are blindfolded by their material desires.

These industrial factories and commercial companies have altered the way that water naturally flows and (they) produce their products by dumping toxic materials into the water.

Of course the water would flow into the ocean, but we will never be able to run away from what we have done to the water.

In this case, the second half of the saying means people are actually doing a contradictory thing that would hurt themselves.

Loose Ends

ceramic molecules after Leonardo Da Vinci's water atom, Finger Lakes extrusion clearflex PVC tubing, campus tap water, rusted pipe fittings from an Echo Park basement, watercolor drawings made during exhibition, ceramic teeth, Yosemite stone | dimensions variable

Circulation (Again)

Each element of the work has a lifecycle, and a pathway of circulation of its own. Ceramic, hand-made models of Leonardo Da Vinci's drawing of a water atom float around the installation. That Italian polymath of the High Renaissance imagined a water molecule before the electron microscopy could reveal the H2O molecule. DaVinci's imagined water atom is a hollow icosahedron, or a polyhedron with 20 faces. Hao, Peng, and I first made models out of toothpicks, then made the ceramic structures. A few of them crystallized in a solution of water and borax, which is made from the mineral sodium tetraborate. Over a forty-hour period, borax crystals formed on the imagined water molecule in the soup pot in my kitchen. I felt myself to be working in a lineage of fantasized chemistry, or perhaps it is an entry point into alchemy. On my stovetop I brought real and imagined water into relational reactions with other agents to make unrepeatable formations with geometries intricate, much like snowflakes.

An unexpected detail happened during the making of this exhibition. The text *Finger Lakes* appeared printed on the clear PVC pipe which circumambulates the installation. I had ordered this pipe in the exact dimension needed to fit inside of the rusted plumbing connections donated to me from a friend's Echo Park basement. Finger Lakes is a poetic image, of lakes shaped like fingers, of water and touching. The Finger Lakes are a group of eleven narrow lakes in an area called the Finger Lakes region in upstate New York. In 1969, a major art exhibition occurred there, titled *Earth Art Exhibition*, which featured the work

of Dennis Oppenheim, Robert Smithson, Hans Haacke, Robert Morris and others. The exhibition was curated by Willoughby Sharp. In winter of 2020, just before the pandemic, I attended Professor James Nisbet's Getty Research Institute Consortium Seminar on Art & Ecology. Jamie took our class down into air-conditioned Getty Archives to review and discuss materials from the Collection of Willoughby Sharp, specifically about this landmark exhibition. The absence of any women, and people of color, was noted by many in the room.

As the Finger Lakes extrusion tubing snakes around the room, it creates a form that encloses the visitor's own presence within it. The tubing enters and disappears into institutional pedestals painted in shades of green, its re-emergence an act of disclosure, a return to sight after visiting another realm. Water seeps into secret places and transforms them, is transformed by them.

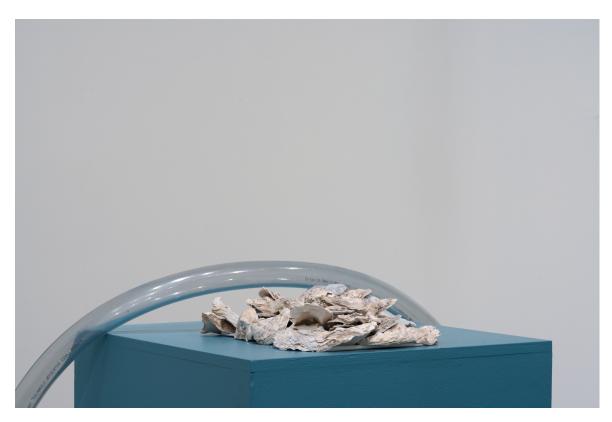


Figure 5 Loose Ends (2022) Detail. Image by ofstudio photography.

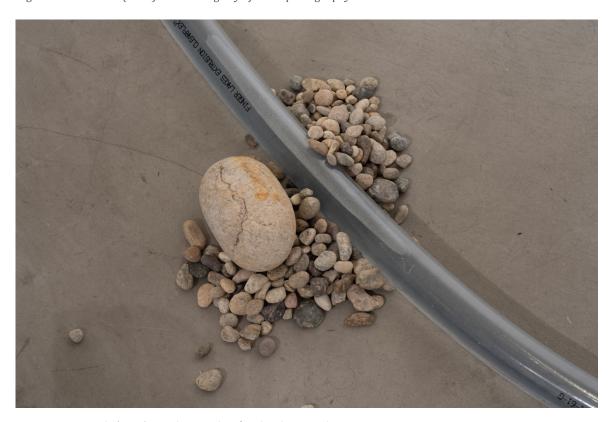


Figure 6 Loose Ends (2022) Detail. Image by ofstudio photography.



Figure 7 Dolphins Swimming in the Cracks of Sidewalks (2022) Installation view. Image by ofstudio photography.

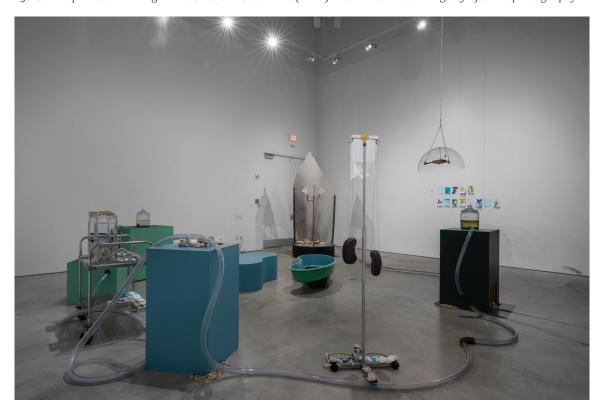


Figure 8 Dolphins Swimming in the Cracks of Sidewalks (2022) Installation view. Image by ofstudio photography.

Notes on Tending: An Epilogue

There is a labor of tending to the body each day. As we worked together to make this exhibition, Hao, Peng and I had an ongoing discussion about how to take care of ourselves under the institutional pressures of school, and how to endure the physical challenges of this kind of art making. There is a labor of tending to the works as they materialize into the world. Ceramics must be smoothed, bisque fired, sanded, vitrified. Objects must be assembled, looked at, altered. The labor of tending is also a requirement of the exhibition. The kidney drips must managed. The water drawings made from the drips, spills, and splashes, the veritable leaks in the system, accumulate and must be dealt with. The oyster shells must be washed so they may be drunk from again. The water levels in the glass dispensers get low, indicating the water has moved on, into people's bodies, or into the fibers of paper with the watercolor pigment. I must replace it with specially treated water I keep in large jugs in the storage room of the gallery. The fountain, which we filled with a five-gallon bucket, must be monitored. The water has a tendency to leave there, and go up into air, and then needs to be replaced, or the pump will burn itself out.

There is invisible labor all around us. The labor of the ecosystem in which we live, some of which is made visible, a surprise to me, as the living forms which appear in the glass jars of the water societies. Industrial-scale labor provides the water that arrives to our faucets. We have it so easy here in Southern California. We turn on a tap and there is water. Glorious water. This is a kind of everyday miracle, if you consider what must work in order for this to occur: on a social, political, and material level. *This is as it should be* is an assumption that floats around the availability of water here. Yet, it was not always this way, and might not always be this way. Our ancestors had to carry water around in order to

have it on hand, their bodies burdened by the weight of it, perhaps nearly at all times. Then, later, there were hand-pumps. Before, water came more locally from the site you were at, so that each place you were had the special properties of the water interacting with that unique environment.

The title for this exhibition, *Dolphins Swimming in the Cracks of Sidewalks*, came to me in a dream in the spring of 2021. The world of my dreams is an important place I attend, or tend to, whenever I can. It came through as a clear, strong image. So strong that I wrote it down upon waking, and made a collage about it soon after to help myself better concretize the image. I can't tell you what it means, because I think its meaning is being created, in an ongoing way, through the making of this work, and through the entry and now circulation of the image out of my inner world, into the outer world, perhaps into other people's inner worlds, and so on. One could say I have now contaminated you with this image, which I will never fully understand. I can say that dolphins, for me, have always been a symbol of fierce strength and freedom. I have felt afraid and awed by them when their bodies came close to mine while I clung to a surfboard in the bay of Topanga. They can breathe both underwater and above, so on the symbolic level, they can inhabit both aspects of psyche: the conscious and unconscious. The cracks of sidewalks are unavoidable and everywhere. They seem to remind us that nothing is truly impermeable, even when we try our hardest to make it so. In these cracks things may occur which we can hardly imagine. I find hope in these cracks, which can be a space for new life to emerge. As an end I will circle back to the definition of reality I offered in the introduction. From the perspective of physics, actual reality is a radically ambiguous and ever-flowing quantum stew, the endless fluctuation of energy and information within the space of infinity.

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