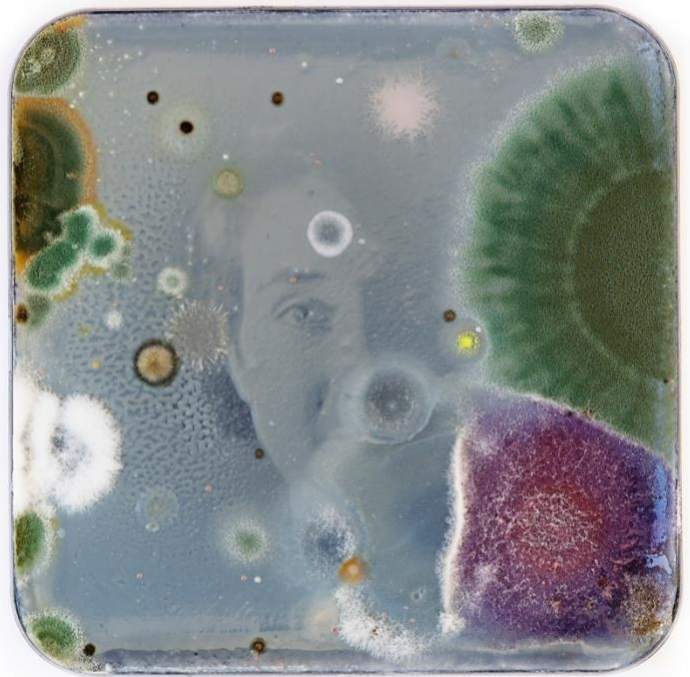


An abstract black and white artwork featuring a central, dark, textured rectangular area. This central area is surrounded by a thin, irregular rectangular border. The background is white with faint, wispy lines and smudges. The overall composition is minimalist and graphic.

Department of Microbiology Art Collection

2019



Woman and Wild Growth

Joanna Rotko, Helsinki, Finland

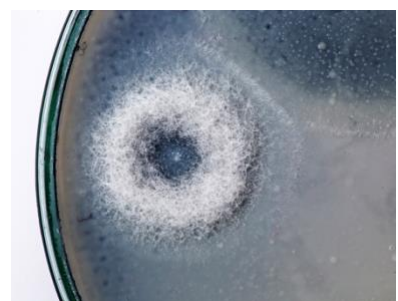
Growth medium and yeast, photograph printed on metal.

I am exploring alternative photographic methods. I made my thesis about making images with yeast. I call these yeastograms. My artistic research explores my own relationship with nature and how nature is affected by my actions. I also study the perishable-ness and disappearance of matter.

I produce living images with raster images, uv-light and yeast. After exposure (approx. 24 h) I photograph the outcome. The second piece of the project , Wild Growth started in January 2016 and was still alive 12 months later.

Joanna Rotko is a member of the Finnish Society of Bioart and Artist's Association of Kotka; she received Masters of Art degree (summer 2015) from Media lab Helsinki, Aalto-University School of Arts, Design and Architecture.

Inspiration: Living Yeastogram from thesis research





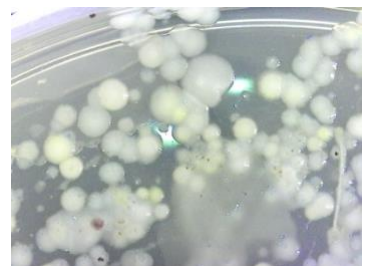
Growth: One and Two (shown)

Debby Sundbaum- Sommers, Philomath, Oregon

monotype

Once I started looking at microscopic shapes and images, I found myself fascinated by the diversity. In developing the monotypes for the exhibit, I was influenced not only by different shapes but also by the growth of the cultures that we looked at. From a seemingly naked petri dish grew these amazing forms, some with a variety of colors. These influences can be seen in the sequence of two monotypes, starting with a faint, barely formed beginning followed by the final image.

Inspiration: Petri dish made for Microbiome: To See the Unseen exhibit workshop for artists





Corpus Interius

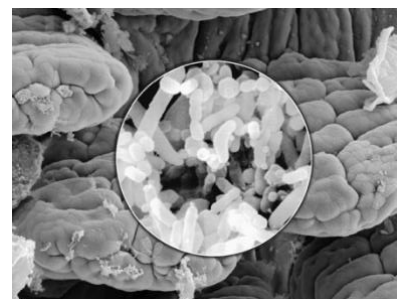
Katherine Schwarting, Saint James NY

pen and ink

Corpus Interius juxtaposes beautiful and grotesque using bacteria of the GI tract, forming micro compositions, or traces within a macro composition inspired by the interior of the colon. It invites viewers to get close to the bacteria which have been laboriously drawn under a magnification. It is based on the artist's experiences with Crohn's Disease, which research suggests studying the complex balance between the body and microbiome may provide a better understanding of the challenging disease.

Inspiration: Scanning electron microscope images of *B. theta*, a prominent human gut bacterium, and the intestine.

Gross, Lisa. "Human Gut Hosts a Dynamically Evolving Microbial Ecosystem" *PLoS Biol.* 2007 Jul; 5(7): e199.





Evolution of a Superbug/1000x Antibiotic Concentration

Bets Cole, Elmira, Oregon

charcoal

The science of microbiology tries to measure and understand complex microscopic systems using the scientific method. In the same way, artists seek to understand complex form and abstract thought using visual language. We know that some bacteria (generally known as "superbugs") are developing resistance to common treatments and much of it is due to the excessive use of antibiotics. These drawings illustrate how lab-grown *E. coli* are initially stymied by steadily increasing concentrations of antibiotics, before mutating into hardier colonies that take over within an 11-day period.

Video: The Evolution of Bacteria on a "Mega-Plate" Petri Dish



From Harvard Medical School and Technion-Israel Institute of Technology

Inspiration:



Invasive Species #3 – Watery Imaginings Bound and Determined

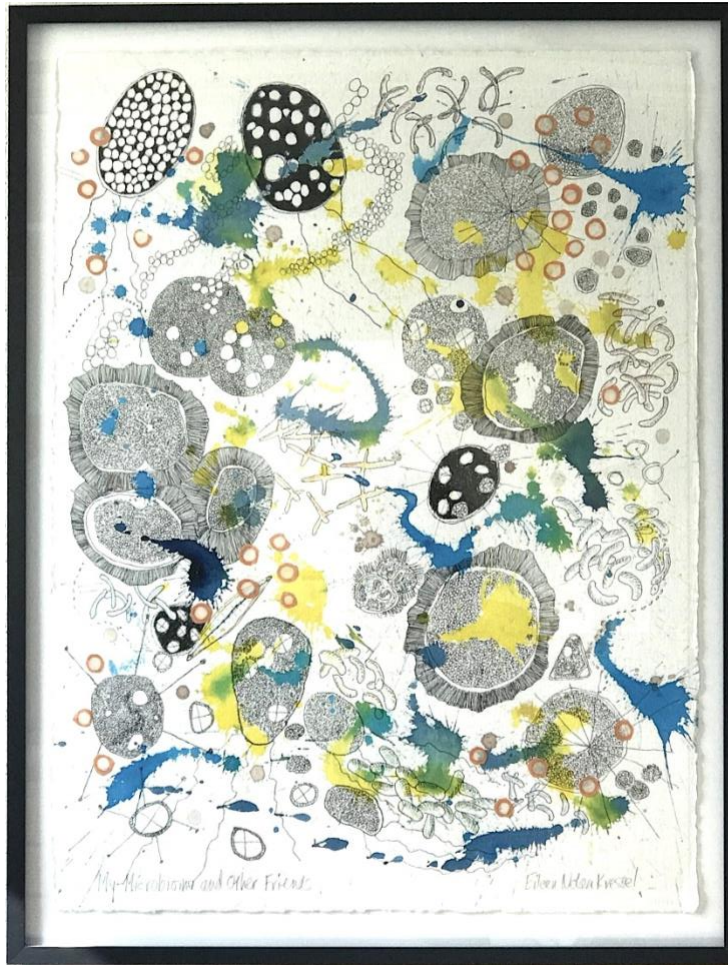
Susan Circone, Lake Oswego, OR

cotton, silk, cheesecloth, floss

My work pays homage to the curvilinear nature of organic forms, especially at the microscopic scale. Repetition of these shapes creates the visual vocabulary and textures that I explore, working primarily with hand-dyed and -printed fabrics and using hand stitching or machine quilting construction techniques. The imagery references the simplest single-celled organisms as a metaphor for a less anthropocentric worldview, a perspective related to my background as a research scientist in geology.

Inspiration:



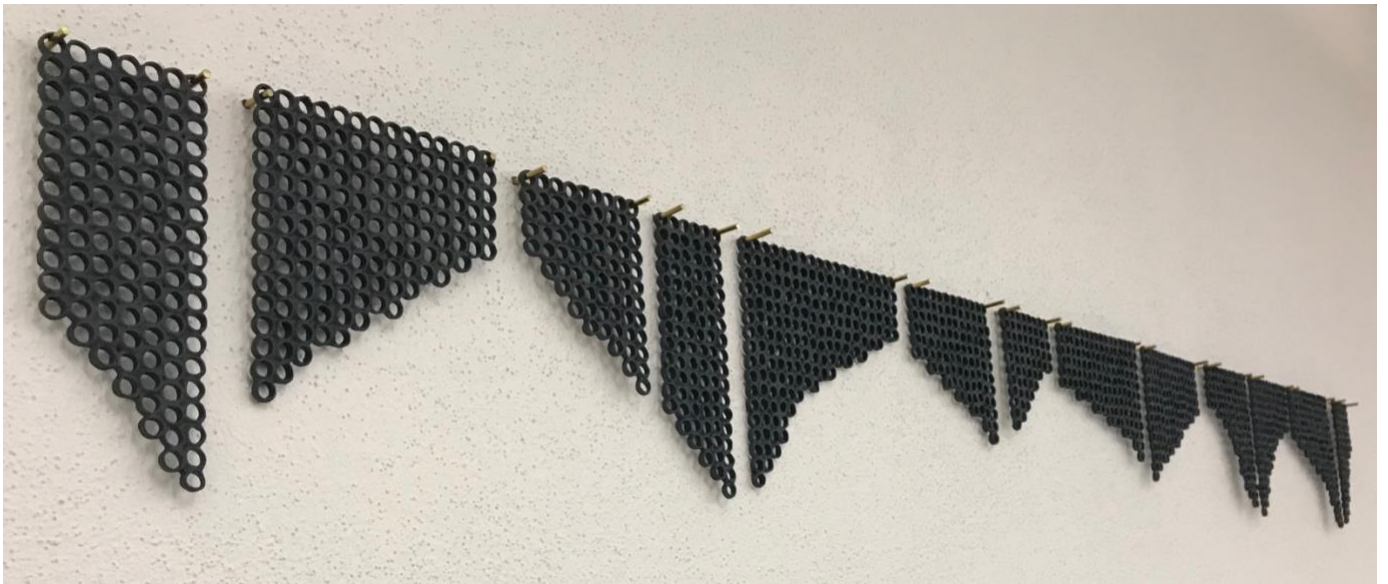


My Microbiome and Other Friends

Eileen Nolan Kressel, Portland Oregon

Acrylic, pen and ink, rice paper, colored pencil

We are our microbiomes! Just think, inside our gut resides a min ecosystem, and army of microbes, 100 trillion organisms, 10,000 different microbial species. There is a lot going on!! Coincidentally, while working on this piece, my microbiome was experiencing considerable disturbance. The art was a way to make friends, and peace, with my gut. Art and Science came together.



Peaks and Valleys

Amanda Salov, Corvallis, Oregon

Porcelain

The work presented in "Microbiomes: To See the Unseen" is comprised of components that collectively contribute to a larger, quietly strong singular presence. This specific body of work is greatly influenced by my collaborating partner's scientific research of microbial communication, a process called 'quorum sensing.' At its core, quorum sensing allows a group of microbes, together, to accomplish something larger than when they are alone. The sculptures presented are influenced by this moment of cooperation.

In my work, I hold these moments, lingering with tension, seeking contemplation on the conditions of life. I believe it is the responsibility of artists and scientists to stay curious and interpret an ever-changing world. I hope to present a new opportunity for understanding complex ideas through my work.



Lake Abert: Field Studies

Michael Boonstra, Eugene, Oregon

Manipulated photo, electron micrographs

Much of my recent work examines landscape through aerial photography and satellite imaging. I'm interested in the scale at which humans are no longer visible but the marks we make on the earth are still apparent. For this exhibition, I wanted to explore a similar change of scale but in the opposite direction, from the limitations of the naked eye down to a scale only visible with an electron microscope.

The images for this exhibition originate from Lake Abert, a body of water in Lake County, Oregon. The extreme salinity of the lake does not allow for any fish, but Lake Abert does support a large population of brine shrimp, making it attractive to sea birds. It was a place that supported human life, along the shores of what was then Lake Chewaucan, but no longer does. It is visibly apparent how precious fresh water is in a place like this. The work created for this exhibition does not speculate on the past or the future of this place, but rather shows what Lake Abert is like now, at a scale that is perhaps as elusive as time to most of us.



Petri Dish and Petri Dish Planet (series of 4, 1 shown)

Carol Chapel, Corvallis, Oregon

Acrylic on board

When I was very young, three or four years old. Three, I'm thinking. I had an "understanding" (I shy away from saying vision, but at that age I'm sure I was more visual than literate) that everything was connected. More than connected. The same, really. That I was a part of it all. I didn't understand why everyone didn't see this. It seemed so simple, so obvious.

Fast forward all these years.

Peering into a microscope is fascinating. What I see through that lens and what I see in a telescope appear, if not the same, at least closely related. Neither of what I am seeing is visible to my naked eye and a whole world is made visible. In Nature patterns are repeated and repeated with variations. Systems work. They work in ALL situations. Microscope. Telescope. Naked eye. Intertwined. More than connected. The same, really.

The three year old me was right.



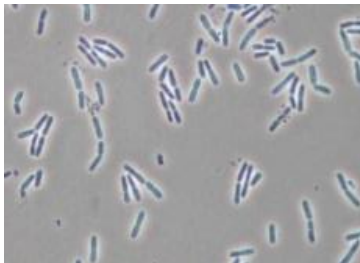
Vibrio

Jerri Bartholomew, Corvallis, OR

Screen-printed cast glass assemblage

This work is a “scientific homage” to the microbes that were formative in my scientific career. My first research project as a graduate student was to investigate the virulence of a newly discovered species of *Vibrio*, a genus of bacteria that plagues (literally), everything from humans (e.g. cholera) to fish. In examining these microorganisms artistically, I wanted to explore beyond what they look like, or their role as pathogens. Glass is a static medium, but employed in a collage it can capture different visual and textural aspects of the subject.

Inspiration:





Willamette River Sculpture

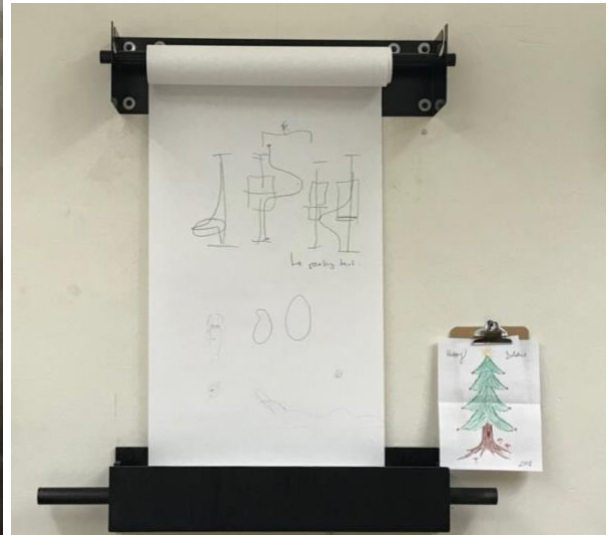
Jerri Bartholomew, Karl Payne, and the LBCC Welding Program

Steel, glass

The Willamette River is an integral part of the culture of our region. From its headwaters to the south, to its confluence with the Columbia River to the north, the river flows through forests, farmlands and cities. These features, and the dams that control its waters, have shaped the flow and contour of the river.

This iron and glass sculpture conveys the dynamic nature of the Willamette River and its tributaries. At tributary junctures, cast glass rounds detail the complex channels that occur beneath the river surface, a network carved over many years by a meandering river.

This piece is dedicated to Dr. John L. Fryer, former Microbiology Professor and Chair, and to all the researchers who have studied the river and its fishes.



Interactive Art Space

Lauren Sharpton, Corvallis, OR

Through observation and experimentation, scientists study and advance knowledge about the natural world. More often than not, sudden revelations result from the confluence of generations of thoughts and ideas. This space seeks to encourage new kinds of interactions and discoveries through the act of taking art breaks.

- The Magnetic Tree of Life Mural intends to evolve. Students, faculty and staff create art about their experimental subjects or discoveries and hang them on a (potentially imaginary) branch on the tree of life.
- The Three Paper Scroll will have prompts waiting to inspire new artwork, or stick with “whatever” inspires you on any given day. These pieces are simply meant to have you take an art break.

Lauren constructs interactive art projects that encourage viewers to not only see art, but to collectively create it as well. Her artwork is influenced by the idea that everything matters. Every step, every action leads to the next and it all holds meaning.

