

STRAIGHT TALK

with Elaine Whittaker

Elaine Whittaker is a Toronto-based sculptor and installation artist. Revealing the beauty of bacteria and disease through her expansive use of material and form,

Whittaker has shown her work internationally including at the Islip Art Museum, Red Head Gallery, the Gwacheon National Science Museum, Dublin Science Gallery, and others. Whittaker has received numerous art grants from the Canada Council for the Arts, the Ontario Arts Council, and the Toronto Arts Council.



Photo credit: David Williams

By Julia Buntaine
Editor-in-Chief

JB: *Your installation, mixed-media, and photography work centers around how the biological sciences and their discoveries can be aestheticized through contemporary art. What would you say is the goal of your work?*

EW: I think of my artworks as invoking comments or questions about biology and microbiology in the contemporary social context. In daily life there is a pervasive sense of both wonderment and fear of this hidden world now being revealed in startling ways. Microorganisms are a fundamental part of us and the world we live in. Hopefully my artworks will move viewers to question, reexamine, and come to terms with their fears of microbes and infection. If the context of my artwork can lessen the fear by embedding it psychologically as beauty in the viewer, that would be great. Keeping up with what is happening in the fields of microbiology and ecological studies is exciting and it is transforming so much of what we know about microorganisms. I am naturally drawn to expressing these changes in my art. But all the new methods, materials, and forms of contemporary art are central to what I am doing. By incorporating this crossover approach, combining art with science, my artworks connect to the wider social and political issues in our society, while marvelling at both the fragility and resilience of the human body.

JB: *“Shiver,” your most recent installation exhibit, focuses on disease and viral infections. Included in this work is a series of photographs of people wearing altered face masks adorned with*

microbial paintings. What inspired you to create this work, and do you see expanding this piece as we continue to encounter “superbugs” and face an increasing number of antibiotic resistant diseases?

EW: For the last couple of years I have been artistically re-imagining what it means to be infected. Could I find an aesthetic embedded in the present day panic and fear of microbes? What materials should I work with? How to make visible what can't be seen? How to skirt away from both the representational and the didactic? The masks were a result of this questioning, and a number of events that converged around that time—the outbreak of SARS in Toronto in 2003, the occurrence of the Avian Influenza Virus (H7N3) in 2004 in Canadian poultry farms, and the research I was doing on the rise of infectious disease and global warming. These influences resulted in *Miasma*, a mixed media wall-based mask installation (originally exhibited in “Dreadful Visitation” at the Red Head Gallery in Toronto in 2006). It was composed of over one hundred respiratory masks with paintings based on scientific illustrators’ drawings of potentially pathogenic organisms: viruses, bacteria, fungi, and protozoa. *Miasma* presented itself as a flowing stream of microbes made visible. I knew after mounting the masks that I would return to this installation to actually wear them someday. Last year I did so. I set up my camera, tied my hair back, put them on, and took a series of cropped close-ups—the ultimate selfie. With my eyes closed or peering out tentatively, the larger than life portraits were somewhat disconcerting, even eerie, but also purposely beautiful—pleasant sky blue masks with colorfully painted microbes. Entitled “Screened



I Caught it at The Movies
(2013). 320" x 48" x 2". Petri
dishes, digital images, agar,
mylar, gouache, *Halobacterium*
sp. NRC-1. Image courtesy of
the artist.



I Caught it at The Movies—Resident Evil (detail)
(2013). Petri dishes, digital images, agar, *Halobacterium sp.*
NRC-1. Image courtesy of the artist.

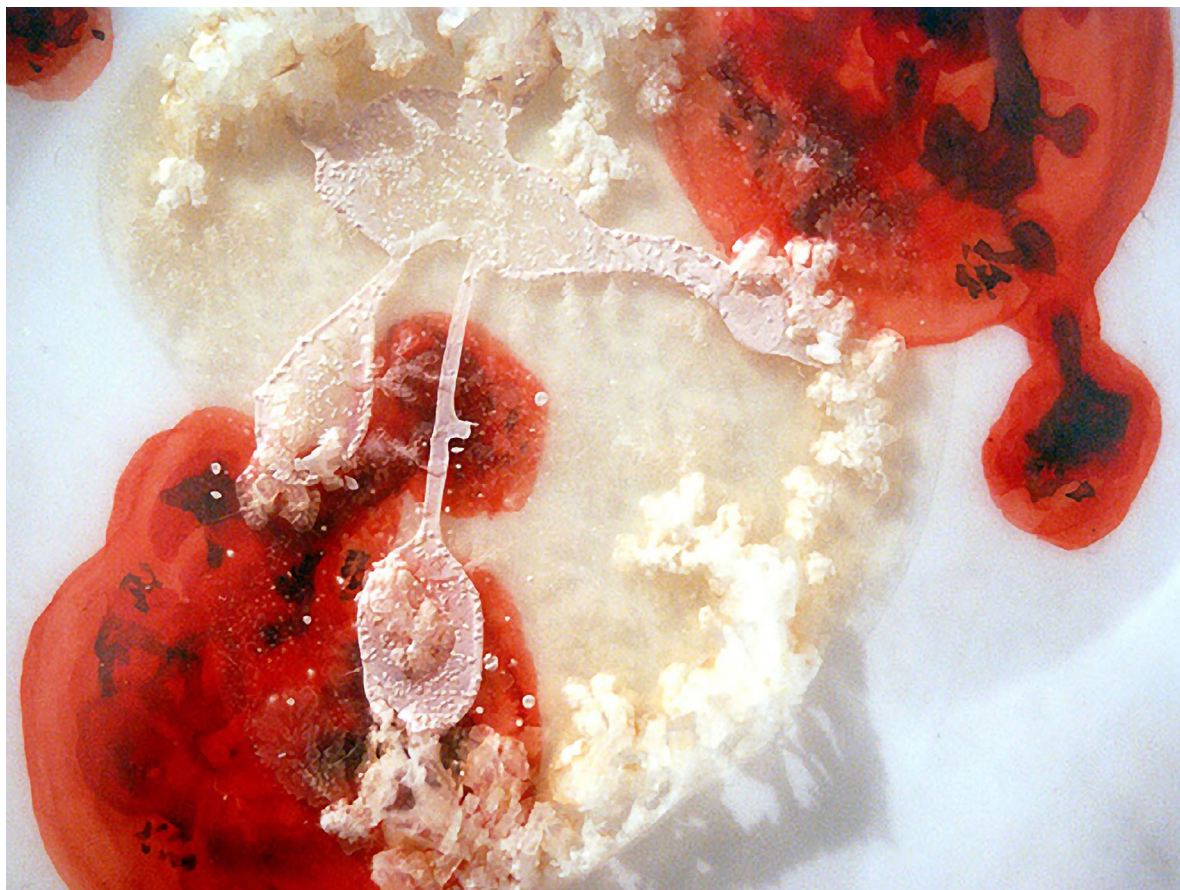


Screened for
Plague (2015).
16" x 16". Digital
image. Image
courtesy of the
artist.



Screened for
Rotavirus
(2015). 16" x 16".
Digital image.
Image courtesy of
the artist.

I Caught it at The Movies—Rabies (detail) (2013). Petri dish, mylar, gouache, agar, *Halobacterium* sp. NRC-1. Image courtesy of the artist.



For,” a selection of them—*Malaria, Tuberculosis, SARS, Cholera, HIV/AIDS, West Nile Virus, Ebola, Rabies, Dengue Fever, Influenza, Rotavirus*, and the *Plague*—were shown in my “Shiver” exhibit in 2015. They have now been shown in Canada, the U.S., South Korea, and China. They seem to really resonate with people—fear, wonder, puzzlement. The next iteration of this work will be a series of collaborative short and longer videos. I do imagine this piece growing as new superbugs appear, and older infectious diseases are taking greater foothold such as MERS (Middle East Respiratory Syndrome), Zika Virus, MDRTB (multi-drug resistant Tuberculosis), and Chikungunya Virus. It is a terrible thing to say, of course, but infectious diseases and possible pandemics do provide me with an almost endless flow of inspiration for my art.

JB: Your multi-part exhibit “Ambient Plagues” juxtaposes visible threats (such as zombies in a horror film) with those microbial threats which remain invisible to the naked eye. How did you decide on the various elements included in this work?

EW: The lead up to “Ambient Plagues” in 2013 was a dramatic convergence of events and dynamic narratives that were being played out by bacteria and viruses in popular culture and in the media at that time. There was a constant barrage of news items with hyped reports of the latest terrifying “germ,” and endless edicts for cleans-

ing ourselves of bacteria and microbes by both corporations and public health organizations. A plethora of shock and disease movies and films, not surprising, came to play in cinemas. It is remarkable how viruses match zombies as the source of panic in horror genres, but also in science fiction as part of the “great unknown.” Scientific reports and studies were becoming art, and art was entangling itself in science. Viruses and bacteria were not just something that happened to other people in other parts of the world but were now on our doorstep, literally and symbolically. And we were blanketed in a psychological state of fear and dread.

In an attempt to decipher and examine this fear and trepidation, I decided to stage these pathogenic dramas and create a theatrical experience for the viewer with my exhibit “Ambient Plagues.” I harvested images and objects from popular culture, scientific implements, fictional specimens, historical records, and microscopy studies, investing them with an exaggerated presence, collapsing reality into fiction. Viruses and bacteria became spectacular massive sculptural entities towering over nine feet high. Vectors of disease, tools of science and medicine, and fictional specimens filled antiseptic small boxes compelling the viewer to get close, become intimate, and recognize their personal relationship with them. Microscopy images of bacteria became illuminated objects of questionable beauty. A 14th century Plague



Shiver (2015). 9' x 5' x 5'. Petri dishes, salt crystals, wool, vinyl, monofilament, pipette tips. Photo credit: David Williams.

Doctor was caught photographically as s/he wandered through a farm landscape populated with innocent lambs and sheep. I wanted to create a complete environment in the gallery—turn one way to see something of beauty, turn another way and get a jolt of fear from a glimpse of the Plague. In the piece *I Caught it at The Movies*, stills from popular films about biological apocalypse were framed in Petri dishes on which visible colonies of bacteria were grown. These mingling images of terrified fictional characters were selected from the movies of the semi-scientific (*Contagion*, *Outbreak*), the science fiction (*Andromeda Strain*, *12 Monkeys*), and the horrific (*Resident Evil*, *28 Days Later*, *I am Legend*). These images of terrified stricken populations became a backdrop to the live microorganisms, fusing the real with the representation of fantasy, reflecting the strong interplay of popular culture with its daily fusion of misinformation through sensationalism. For all the works in “Ambient Plagues” I hoped the viewer would consider the roles of microbes

in our lives and reflect on the fact that we cannot possibly insulate ourselves from this natural ecology. There is an old dualism between nature and humans, something that capitalism fosters, and we need to break this outlook. Ultimately, the images challenge viewers’ perceptions about the body, a site that has become trespassed, tainted, and contaminated by a popular culture that escalates social anxiety and terror of microbes by artificially creating a sense of bioparanoia. We cannot live apart from our natural ecology.

JB: *Much of your work, including (in)trepid Cultures, involves your artist studio becoming a bit more like a science laboratory in order to culture bacteria. Can you describe your artistic process, painting with bacteria?*

EW: I was one of those people that decided to go back to university for a fine arts degree later in life (after earlier studying cultural anthropology and feminism). I had been working in environmental organizations for a number of years and wanted to go back to school to pursue my passion for art. While at school I was developing an art project that looked at the effect of synthetic toxic materials on human health and the environment. I had my “eureka” moment while lying in a bath of Epsom salts when I suddenly thought “salt!” What an interesting material! It has a social history, geological history, and is of immense biological importance to all species. I was also drawn to salt because it is the foundation for life, from our primordial past in a briny ocean to our fetal beginnings in the salty milk of amniotic fluid. Salt is a mineral and not organic, but I mimicked the organic by growing and nurturing its diaphanous crystals on created and found objects. Challeng-

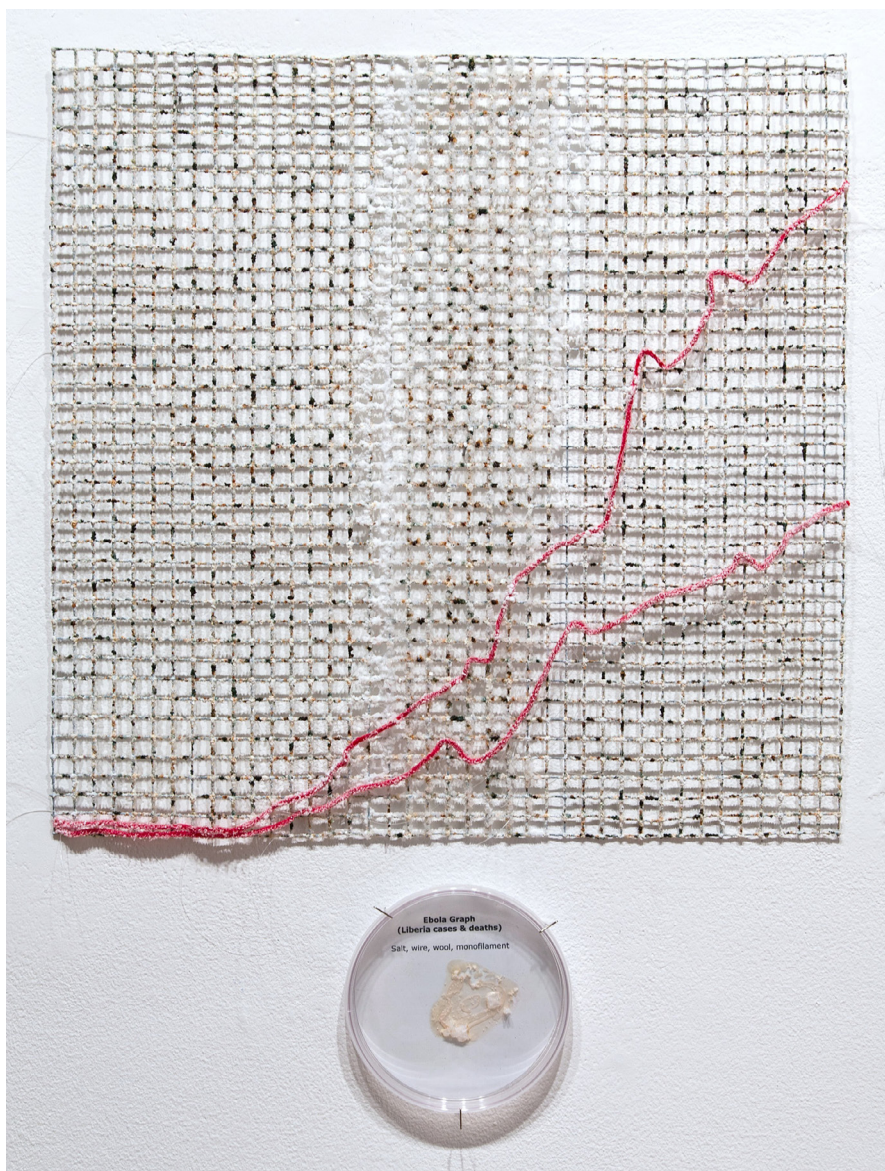
ing these boundaries between organic and inorganic, and between microscopic and macroscopic, salt became both my main material and metaphor in my artworks from that point on. I could sculpt objects with salt, and integrate it into mixed-media works. These artworks would be in a continual process of transformation because of the chemical interactions.

A couple of years after that I was invited to work with a developmental biologist and butoh performer to create an installation for the science, art, and dance festival, Shared Habitat 2 (2002). This collaboration furthered the intersections of my artwork with themes from science, particularly new developments in biology. I started incorporating live halobacteria into my artwork because it was a salt bacteria and non-pathogenic. I was researching and investigating the history of pandemics, the rise of infectious disease brought on by global warming, and the natural history of microbial life on earth at

that time, and I was overjoyed when I found out that halobacteria, a salt-loving extremophile (Archaea), was an organism I could actually order from a biological supply company and culture at home. With a research grant from the Canada Council for the Arts (2009), I took the first steps in setting up a mini-laboratory in my studio and learned how to culture it. With a microscope and digital camera, I also photographed the growth of the brightly colored colonies and then used the images in installations, or displayed the actual Petri dishes with halobacteria as live drawings on the wall. Over the past years, many of my installations and exhibits have continued to draw on it as a stand in for infectious disease. I have found that, even though it is a safe and harmless bacteria, many people will gravitate to the colorful Petri dish drawings because of their beauty, but upon realizing that they are looking at live bacteria will shudder and back off. I suspect this is a common experience among biology-based artists.

JB: *What are you working on right now? Are there any new diseases you find particularly inspiring?*

EW: My current work continues to examine the body as a site of infection, exploring how infection shapes our concept of self and identity. Gerald Callahan, an immunologist, has suggested that “infection is now and always has been unavoidable. The only beings that have prospered on this planet have done so not because they learned to avoid infection but because they learned to thrive on infection.” Unfortunately the alarmist view in popular culture prevails with narratives of “us” and “them,” “self” and “other.” I am moving towards incorporating these ideas in a new longer-term project. It will be based, in part, on a family narrative, my mother’s experience with contracting Tuberculosis in her early 20s and living in a sanatorium for over two years at the end of WWII. As a normally active young woman, this difficult time of coping with ill health (her own and others’) in a semi-quarantine atmosphere, enduring painful treatments and procedures, greatly impacted her sense of self. Her story and experience will be incorporated into an art installation that situates itself around the idea of air as an emanation of both infective and non-infective microbes, an environmental element that is no longer reliable and must be watched for quality and purity. This project will be complemented by new materials and work I am currently undertaking at a residency at the Pelling Laboratory for Biophysical Manipulation at the University of Ottawa where I am



Ebola Graph—Liberia (detail) (2015). 20" x 20". Wire, salt crystals, wool, Petri dish, agar, Halobacterium sp. NRC-1. Photo credit: David Williams.

learning to culture cells on alternative structural scaffolds and forms.

JB: *What advice would you share with emerging science-based artists?*

EW: Culture wonderment and curiosity, and keep an open mind. There are so many exciting paths to be explored and constant questioning needs to inform your artwork—about materials, about the other creatures and species, about ecology, and about the social and political conditions we experience and create. It is also important to evaluate and excavate the past. We can never learn enough art history. Ultimately, as an artist that focuses on the scientific and the biological, it is important to remember that your artwork gives you the opportunity to really look at the interconnectedness of life, art, and being human.