



*Institutional Critique
to Hospitality:
Bio Art Practice Now*

A Critical Anthology

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1.

Dear Bees and Microbes

Kathy High

Summer 2016. The bees are overpopulated. And we need to take honey. Paul will come over in an hour to look at them. It is hot. In my bee suit it is even hotter. Yesterday I looked at the bees – poked around in the hive a bit, trying not to disturb too much. But there are so many bees that I could barely lift the frames. They were coated in layers of bees. Paul thinks I need to add more frames in another super. I think the hive needs to be split. They almost swarmed the other day. Flew around the neighborhood *en masse* making a crazy group buzz. But for some reason, they came returned to the home hive. Why?

I think my gut microbiota are feeling similarly. They want to leave. They are overpopulated and need to be split. I want to add more bacteria to them (FMT) – to further diversify their grouping. How well will they play with others? What will the new additions bring to the table? What is my optimum microbial cocktail?

We all want our collaborators to be happy. We want that moment of group laughter to occur – where defenses are down and all join in a collective gaffaw. When is our bacteria feeling satisfied? What is a lark for gut bacteria? How do we game with our bacteria? Is there a hive mentality there? Is my happiness based on their happiness?

Half my body cells are not human. These days I think more about small microbes and how we all came together than much else. I want to know what bacterial consciousness is. Are they all just doing a job? Or do they have autonomy? Can they act out? Can they revolt? Do I encourage that in them? Do I discourage that?

I come back to myself as a hive. I come back to myself. I come back to myself as the carrier of pounds of other creatures. Or do they carry me, or act as the glue to keep me upright? Understanding this symbiosis I feel a great responsibility. I can no longer mistreat myself. I can no longer hate myself. If I do, I disrupt the lives of millions. Or do they disrupt me? They are my beautiful, beneficial and potentially reactive, adaptive extremophiles.

New relations

I want to talk about two things. The first is about institutional critique.

February 2016. I joined a laboratory earlier this year. The head of the lab was incredibly welcoming. We met through a panel discussion. I asked if I might join his lab as an artist-in-residence. He said yes without hesitation.

As a result of that request I spent a month at USC at the Keck Medical Center as part of William DePaolo's lab. Will specializes in gut biome, immunology and ecology – my shared interests at present. He set me up in his lab as he would any participant. His team led me through their regular duties. I learned the protocols and politics of the lab.

Will asked what science I wanted to do and what art I wanted to make. I told him my wish to use my own body as a site of experimentation. And I also needed to create something more communal that involved people's participation. After some discussion we had a couple of experiments designed using Will and me as subjects. These projects are still ongoing. I return to continue the work in the Depaolo Lab this fall. In the later part of the year, Will is also moving to University of Washington (Seattle) where he will become the Lynn M and Michael D Garvey Endowed Chair in Gastroenterology, Associate Professor of Medicine and Director of the UW Center for Microbiome Sciences & Therapeutics (CMiST). Will was so excited about our alliance that he designed his new laboratory at UW including built-in gallery spaces for the display of art alongside the lab. Will completely understands the value of these cross- disciplinary conversations. He is a model for future art + science collaborations. This is our *biofuture*.

The second discussion is about openness and visualization.

Historically seeing the processes of biology have been accompanied the discipline. Biology has lent itself to the arts for both sonic and visual exploration with imaging capacity continuing into microbiology. Bioprocesses can be witnessed using more and more powerful microscopes.

How to watch your immune system work?

At the DePaolo Lab, through our experiment *Testing the Waters*, I was able to see my own T cells react to my own fecal matter. Will and I set up our experiment using body materials from me, the "sick subject," and Will as the control – the "healthy subject". The experiment was the picturing of my own body's dramatic autoimmune reaction – cells turning against my own cells. Will had a theory that my blood immune system would react quickly and strongly to my fecal microbes, because he believed that my blood was introduced to the gut microbes much earlier when I first developed Crohn's disease (some kind of leaky gut situation that develops). So we took my white blood cells and Will's and introduced our fecal H2O and assays to the cells. Then I worked with lab technician, Kalisa Myers, to microscopically image the process over a couple days. In fact, there was an extreme reaction by my immune cells – and it was the first time I had ever seen my own body's T cell reaction. My cells reacted much more dramatically than Will's cells did – and much more swiftly too. It was the first time I could see the way my over-active immune system works against itself and how it actually functions. There was something both poetic and frightening about the image. What looked like an angry black dot, was, in fact, the T cells taking over and breaking the other cells.

There was something incredibly poetic in that image for me – enabling a new way to consider my health and dis-ease: I suddenly understood myself much more profoundly and also felt connected to the (dys)function of microbes. The image looked like a glitch, static in the system – trouble that happens over and over again – like some transformation.

The systems that allow *over* or *under* reactions can cause radical changes in our lives – and are mirrored in bodies, ecologies, climates and so on. And I realized that perhaps I am not "attacking myself" through my autoimmunity, but rather I am a mutant, preparing for another time. Or maybe caught in a past time where my body cannot catch up to the now? This one image made me see my biosystem with a more tolerant interpretation, situating even my ill health as part of a broader environmental entanglement.

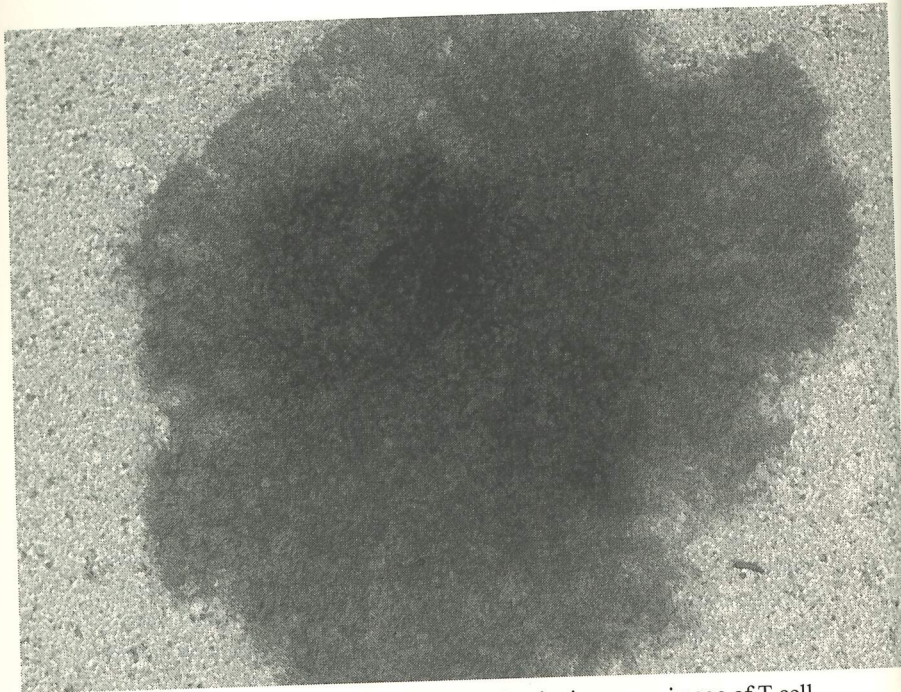


Figure 1: *Testing the Waters*, 2015. Confocal microscope image of T-cell autoimmune reaction - white blood cells to fecal matter. Depaolo Lab. Photo by Kathy High with Kalisa Myers. Image courtesy of the artist.

2. Three Questions

*A Holy Trinity or Three Blind Mice?*¹

Suzanne Anker and Assimina Kaniari

*Three blind mice. Three blind mice.
See how they run. See how they run.
They all ran after the farmer's wife,
Who cut off their tails with a carving knife,
Did you ever see such a sight in your life,
As three blind mice?*

Three Blind Mice, John W. Ivimey's
fairy tale from 1909.²

However that is not the end of the story. The nursery fable continues: The mice befriend a chemist, who gives them optimistic advice, telling them it's "*Never too late to mend*". Soon after their tails begin to resume to grow they regain their eyesight as well.

What this parable might tell us is that regeneration, a concept bantered about throughout history is now, in fact, among us. From prosthetic devices to genetic engineering culminating in CRISPR³, a software program for editing genes, we are profoundly altering nature... Perhaps science and its technologies will offer solutions to once considered fatal circumstances. Face transplants, bio printed bladders and embryoscopes add revolutionary interventions infiltrating human reconstructions.

Assimina Kaniari: Dear Suzanne, my first question concerns your earlier work and your approaches to both imagery connected to the 'bio' theme and to the institution. In your discussion in your interview article 'Specimens as spectacle' which you co-authored with Sarah Franklin,⁴ you drew attention to the practice of reframing in relation to your images which were photographed from a medical museum acquired without prior permission. Do you conceive of this process, which is implicit in the production of the final image to be exhibited,