Under the Microscope

Sarah Knill Artist Statement Your brain contains over 10 billion neurons and each one forms roughly 1000 synapses, or channels of communication to other neurons, consequently permitting the functioning of *you* (Damasio 331). This is a physical truth, one view of reality. This is, however, likely rarely the way we think of ourselves, and seldom a typical view of reality held by the modern mind. As a 21<sup>st</sup> century young American in our world of go, go, go, click, click, click, I easily include myself to be among those susceptible to familiar distractions. In my practice I seek to drop the unnecessary chatter between my ears as well as the egocentric view of my universe. I am interested in looking past that noise, in untangling the cords and networks, going beyond what we routinely take notice of, in setting aside things that we are conditioned to believe, to avoid assumption without awareness, to investigate the breadth of each moment, to embrace exploration as a means to enlightenment. I have chosen here to widen the default narrow scope, even in the act of zooming infinitely inward.

I recently attended a lecture by Glenn Harper, art critic and editor of *Sculpture* magazine. It is my aspiration that my artwork might someday live up to his definition of critical art: "I would make the case though that what I'm calling critical art (art that engages and does create a philosophy as it creates itself) offers a broader, deeper, fuller experience of what art can be, and forces the viewer not only to recognize the object, but to experience a kind of moment of escape or estrangement or alienation from everyday life that makes you look, that makes you understand a little bit differently, your own life or what the world is, or how you see the world, or the milieu that you're living in" (Harper).

My artistic practice records momentary events and their immediate generations of outcomes, as well as provides visual documentation of the research into the physical compositions of those moments and their offspring. For me, the most logical place to begin this exploration of a moment is through the consideration of scale. Science tells us that there is a remarkable amount of "stuff" that resides outside of what we are able to witness with the naked eye. From the celestial to the microscopic, strange worlds are thriving, dying, emerging, and mutating. I am not a scientist. My artistic practice is not defined by a rigid adhesion to scientific theories and experimentation practices; intuition, fantasy and invention have their place in my visual world. I do, however, find inspiration in the idea of exploration in scientific research. This body of work is my investigation into another world, arguably one toeing the line of fiction, though for me it is very much rooted in "real life", and is simply explored differently. Collectively I consider my current body of work, and their mutations to be specimen-like.

I begin with the documentation of the momentary event. For my current body of work this momentary event is squeezing my hand, while holding a bottle of sumi ink, the documentation medium. My hand is suspended above a sheet of blank drawing paper in order to record the act (or the outcome of the act) of squeezing the ink bottle. The documentation of this act is specific to a plethora of variables, including the position of my body in relation to the paper, the force with which I squeeze my hand, the angle at which I hold the ink bottle, the distance between the spout of the ink bottle and the paper, any subtle variations in my gesture, and so on, rendering each recorded act as unique. The landed ink then dries and becomes the visual launching point for my artistic investigation.

At this point the process takes on an almost self-generating quality. spend several sessions drawing with ink pen on the paper containing my previously documented moment. Each drawing decision is made with an awareness of what is already on the page. The drawing continues, and additional black marks collect around the original ink until each compositional "opening" is resolved.

For me, this process is very much akin to *The Game of Life*, a cellular automaton, created by the brilliant mathematician, John Conway. *The Game of Life* is executed on an infinite

3

checkerboard, where each cell is surrounded by eight other cells. An original arrangement of markers is laid, in any quantity, on any of the cells of the grid, denoting these cells as occupied or "live". Subsequent generations of *The Game of Life* are derived from these simple rules: For each cell, of its eight neighbors, if a quantity of zero or one neighbors are "live", the center cell dies of isolation. For each cell, of the eight neighbors, if four or more are "live", the center cell dies of overcrowding. For each call, of the eight neighbors, if two or three are "live" the center cell survives and remains occupied. Any unoccupied cell that has precisely three "live" neighbors will become "live" in the next generation. This procedure is carried out for each cell, often coming to and end point, though potentially an infinite number of generations can be processed (Albers 9).

For the purpose of this analogy, Conway's original arrangement is my original ink splatter documentation. The subsequent drawing sessions are the generations derived from the original arrangement. Admittedly, mine is a far less calculated version of the Game of Life, embracing a more flexible approach, but the general premise is similar. In many instances, the drawing resolves itself at certain end points. Other times, the drawing might run off the page, into the depths of infinitude. Though a more subjective system, there is a certain method to the progression of the drawing.

It would be difficult for me to state that the drawing imagery is not also somehow, at least in part, inspired by the scientific microscopic documentation of the human body I have researched. Specifically, the connections made between neurons in the synaptic space as well as notions of surface in human physiology, namely the skin and cell membranes have made a special impact on my aesthetic. My doodles might very well be considered stylized renditions of our biological building blocks. As Joseph LeDoux illustrates in *The Synaptic Self*, "People don't come preassembled, but are glued together by life. And each time one of us is constructed, a different result occurs" (LeDoux 3). More specifically, LeDoux argues: "You are your synapses. They are who you are." (LeDoux 324). Synapses, LeDoux describes , are the "spaces between neurons... the channels of communication between brain cells, and the means by which most of what the brain does is accomplished" (LeDoux ix). In his explanation of how the notion of "self" might be understood in terms of synapses, LeDoux states: "Life requires many brain functions, functions require systems, and systems are made of synaptically connected neurons. We all have the same brain systems, and the number of neurons in each brain system is more or less the same in each of us as well. However, the particular way those neurons are connected is distinct, and that uniqueness, in short, is what makes us who we are" (Ledoux 303). On a microscopic level, the differences that occur between an individual's synaptic spaces, namely the variations in the specific nature of the networking of neurons, are precisely what distinguishes "me" from "you".

The mechanisms by which function is derived has been a subject of poignant fascination for me. My artistic process is a reference to, albeit one of comparably incredible simplicity, to the inner workings of daily life. Zooming inward, I shift perspectives, revealing new levels of the same subject: here, the singular initial ink splatter moments. Though my world of artistic images is invented, it is directly inspired by the very real units that make up our parts, and the units that make up those units, and so on.

For the next step in my process, I engage in the act of magnification by pinpointing and isolating small fragments of the ink drawing documentations. magnify these small fragments of drawing composition to serve as a literal starting point, or skeleton composition, for the next stage of my process, the "microscope slide". To create these pieces I've taken the slick two-dimensional surface of the microscope slide, here a sheet of plastic, and through the act of

5

heating, gouging, and stretching of its "skin", have created a three-dimensional texture, prescribed by my chosen composition, which extends beyond the surface. This is both a creative and destructive act. The defilement and burning of the surface of the "microscope slide" is certainly quite a physical activity, though I enjoy that this creates a dichotomy between a physical, almost violent act and a product of sinuous curves and delicate bubbles. This textured, transparent layer of the work is a point of close investigation, much like the purpose of a microscope. These pieces are positioned horizontally and off the wall; the viewer can walk around them, look down on and into them, referencing the viewing process of an actual microscope slide. Each freestanding slide is installed to be viewed as a specimen.

The "microscope slides", viewed from the "flat" or clean side of the slide, imply a relationship between depth and surface that Mark C. Taylor describes in *Hiding*. Taylor explores an alternative theory of the body/I dichotomy of selfhood. Amidst acknowledging the myriad dualities within which we exist, Taylor primarily embarks on the adventure of navigating through the seemingly limitless number of ways in which we might consider the differentiation between surface and depth as perpetually dissolving before our eyes. In addressing our building blocks, Taylor describes the blastomere, the hollow ball created by the division of a fertilized egg. The blastomere eventually folds in on itself, so as to invert the outer surface to an inner surface. This process produces two layers, the endoderm (which will form the blood, organs and interior linings) and the ectoderm (which will form nerves, hair, nails and epidermis), which then produce the third surface called the mesoderm (which will form the skeleton, tissues, muscles, urogenital and vascular systems). Taylor concludes, "since the organism as a whole is formed by a complex of dermal layers, the body is, in effect, nothing but strata of skin in which interiority and exteriority are thoroughly convoluted." Using our very nature as a prime example, Taylor outlines the validity and premise of his argument: what appears to be depth is ultimately an

endless layering of surfaces, rendering "depth" an illusion, albeit one of profound complexity. The three-dimensional aspect of my slides is a nod to Taylor's theory on surface and depth.

Once the investigation, under the microscope as it were, has taken place, there is an opportunity for analysis, for reflection. Painting serves as a reflection of "reality" and it is the next logical step in my process. Again, I pinpoint tiny specific areas of the pseudo-microscope slide imagery and zoom in on this new composition to reflect in painting what is frozen in the transparent textures. The specific instant of reflection of the microscope imagery is subject to the momentary situation of light, perspective, etc, as captured in my studio, through the photographic lens. In this way the painting becomes a very particular take on the much more open, that is to say, transparent, nature of the microscopic imagery. The effects of this momentary influence are staged visually in the resulting painting, and each painting is simply *one* of what might be a theoretically infinite number of possibilities. The painting itself, the final step in my process of moving from medium to medium, zooming further and further inward, is also a collection of layers, and bizarrely the mutation of a mutation, as rendered through me, the "creator" of my Frankenstein universe through my alchemic process.

Referring once again to the scientific mode of experimentation, I address the role of variables with this last step of the process. Engaging in research and experimentation often involves the tweaking of certain variables in order to generate an assortment of results, which may then be compared and studied. For the paintings, I have focused on the range of one variable in particular: color. Specific color palettes have been chosen for each of the paintings. This is much less a reference to color theory than it is a method for controlling my chosen variable of color and ultimately providing a system by which I might categorize my collection of specimens. The horizontal rectangular paintings are arranged on a scale ranging from chromatic black to highly saturated color. Four small square paintings each work toward a variation of chromatic

gray by way of two tubes of paint each. A larger square painting utilizes a red, yellow and blue tube, plus white.

Much of my imagery and the repeating motifs within the early phases of my process (most often, the drawings) are the subconscious products of saturating my mind with the scientific documentation of everything that is peculiar-looking about microscopic imagery, which revels in an organic plethora of repetition and lyricism. The imagery in the subsequent phases of my process, though inviting unpredictable chemical phenomena and the mutative development of forms, is compositionally rooted in the drawings. Though I *am* profoundly intrigued by the work of other fine artists, in relation to this body of work, my inspiration is typically defined through a more conceptual context. I find it interesting how an idea can have a seemingly infinite number of ways in which it might be executed visually, and these options, or decisions an artist makes along the way in order to achieve the final product, inevitably lead to the subtlest yet potentially uniquely profound tangents upon which to mutate and diverge. For me, the sculptural installations and acknowledgement of process in the work of Sarah Sze and Tara Donovan have been of particular influence.

In relation to Sarah Sze's work, Jane Marsching comments, "There are no absolute sizes in our world; things appear tiny or gigantic in relation to our vantage points and the scale of our bodies" (Marshing 12). The grand scale of Sze's installations is only further exaggerated by the smallness of the individual objects used to create the larger "unit". Tara Donovan too uses several small units to create an almost infinitely more massive whole. This notion of smaller units coming together to form larger ones is directly related to the relationship of the unit (or individual piece of artwork or cell or being) to the whole (or body of work or universe) that I utilize in my own work. For each of my units, as with each subsequent "step" in the process of shifting from medium to medium, zooming in ever further, a development of what can be "seen" occurs. As with any drastic magnification, new visual information becomes available. It is through this process of zooming in (and likewise zooming out) of our "life-size", by considering our cells or our role as a speck in the universe, we might appreciate what the self is through a new perspective.

This also provides an opportunity to unsettle the viewer. By rendering very specific forms that are not of this world, therefore unfamiliar to the viewer, I hope to develop a subtle anxiety in the viewer's mind: "What are these forms?" "Are they dangerous?" "Should I be worried?" I do not expect such unease to be blatant or even initially detectable. Perhaps some of the potency of things that are "eerie" is the initial tendency toward feelings of "normalcy" or beauty". Elkins sets up this dichotomy between the self and other where "monstrosity" fluctuates as a definition of self (the familiar) and the other (often the non-human). This shifty monstrosity is the intangible location of the universe I seek to define as creator of my world.

I seek to raise Elkins' "question of what happens when the eye is baffled and needs to go in search of analogies in order to understand what it sees" (212). We automatically try to place the unfamiliar, to understand it in the terms that we already know and can define. This is often the case with monsters. We understand the mermaid to be part woman and part fish, the robot to be part human and part machine. Elkins defines the "monsters" that defy recognition as the "pseudo-gryllus". According to Elkins, this is a "more genuine problem of understanding—a true, noncomposite monster in the modern sense, resistant to analogic explanation" (219). This is the realm I see my imagery existing in. Though I am describing a moment based in reality, the method for doing so is invented. I simply set forth to depict several samples of what momentary events might look like on a microscopic level, in order to provide the viewer with an unusual view of things.

If you were to peer deep within the membrane of a cell, you would witness a world of dramatic and perpetual change. These striking changes, however, exist within a range of limits. Therefore, as we zoom out, the appearance of change gives way to a view of increasing stability and sameness (Damasio 138). Perspective is everything. The shift in scale, the entire premise of this body of work, is simply one alternative angle. The point is not to value one viewpoint over another, but rather to create an awareness of the multitude of perspectives that are available, each one more fully developing the way in which we process life.

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## Image List Under the Microscope

53.

54.

Installation view

Installation view

14.	Slide d(one) <sup>1</sup>	ink on paper	14" x 38"
15.	detail		
16.	Slide d(two) <sup>1</sup>	ink on paper	14" x 38"
17.	detail		
18.	Slide d(three) <sup>1</sup>	ink on paper	14" x 38"
19.	detail		
20.	Slide d(four) <sup>1</sup>	ink on paper	14" x 38"
21.	detail		
22.	Slide d(five) <sup>1</sup>	ink on paper	14" x 38"
23.	detail		
24.	Slide $d(six)^1$	ink on paper	14" x 38"
25.	detail		
26.	Slide d(seven) <sup>1</sup>	ink on paper	14" x 38"
27.	detail		
28.	Slide m(one) <sup>2</sup>	lexan and aluminum	12" x 36" x 42"
29.	Slide m(two) <sup>2</sup>	lexan and aluminum	12" x 36" x 42"
30.	Slide $m(three)^2$	lexan and aluminum	12" x 36" x 42"
31.	Slide $m(four)^2$	lexan and aluminum	12" x 36" x 42"
32.	Slide $m(five)^2$	lexan and aluminum	12" x 36" x 42"
33.	Slide $m(six)^2$	lexan and aluminum	12" x 36" x 42"
34.	Slide m(seven) <sup>2</sup>	lexan and aluminum	12" x 36" x 42"
35.	Slide m(eight) <sup>1</sup>	lexan	5.5" x 5.5"
36.	Slide $m(nine)^1$	lexan	5.5" x 5.5"
37.	Slide m(ten) <sup>1</sup>	lexan	5.5" x 5.5"
38.	Slide m(eleven) <sup>1</sup>	lexan	5.5" x 5.5"
39.	Slide m(twelve) <sup>1</sup>	lexan	5.5" x 5.5"
40.	Slide $p(one)^3$	oil on panel	12" x 36"
41.	Slide $p(two)^3$	oil on panel	12" x 36"
42.	Slide $p(three)^3$	oil on panel	12" x 36"
43.	Slide $p(four)^3$	oil on panel	12" x 36"
44.	Slide $p(five)^3$	oil on panel	12" x 36"
45.	Slide $p(six)^3$	oil on panel	12" x 36"
46.	Slide p(seven) <sup>3</sup>	oil on panel	12" x 36"
47.	Slide $p(eight)^2$	oil on panel	48" x 48"
48.	Slide $p(nine)^2$	oil on panel	10" x 10"
49.	Slide $p(ten)^2$	oil on panel	10" x 10"
50.	Slide p(eleven) <sup>2</sup>	oil on panel	10" x 10"
51.	Slide p(twelve) <sup>2</sup>	oil on panel	10" x 10"
52.	Installation view		

























































































