Symbiosis Now

Priscilla Fusco
CUNY Hunter College

Recommended Citation
http://academicworks.cuny.edu/hc_sas_etds/53
Symbiosis Now

by

MPriscilla Fusco

Submitted in partial fulfillment of the requirements for the degree of Master of Arts, Hunter College The City University of New York

2016

Thesis Sponsor:

5/22/16  ___________________________  Daniel Bozhkov
Date  First Reader

5/22/16  ___________________________  Constance De Jong
Date  Second Reader
TABLE OF CONTENTS

Title Page: page 1
Table of Contents: page 2
Symbiosis Now: pages 3-14
Bibliography: page 15
Image List: page 16
Images: pages 17-22
1. A man lays a patio. While resting a stone against a tree, he disturbs a living wasp’s nest. With a steel bar, he knocks the nest from the tree, crushes the entrance, and pounds it to a pulp. No one is stung.

As we narrow the world’s parameters with our activities, we simultaneously crowd the other living organisms supporting our existence. The closer we are thrust, the more shifts we can expect between us and them. This pressing together references our continuity. The evolutionary theorist Lynn Margulis, in her discussion of how sexual reproduction came about, describes the fusion of male and female chromosomes as the product of exchanging complex genetic material to the next body. Her description of the evolved human is pragmatic: “We,” she states, “a kind of baroque edifice, are rebuilt every two decades or so by fused and mutating symbiotic bacteria...Symbiotic interaction is the stuff of life on a crowded planet.”¹ This is the arrangement we historically have with all the beings around us. If time were sped up, we would discover our entities the result of a collision of different bacteria and mono cells that have morph into separate, but melded, parts. Like Bernini’s angel plunging his arrow into St. Theresa, organisms create a busy, baroque paradox of joining through adaptation. The cross-pollination of want with not-want is the stage in which I find myself in art-making, and nature orchestrates these boundaries and simultaneously coaxes me to assess conditions.

Spikes, for example, are generally considered to be a primitive form, due to their obvious role as protective armature. Yet their uses for an organism may range from an apparatus to propel it, or to protect its soft interior. I am specifically using the word “apparatus” as used by Giorgio Agamben, who summarizes this concept in three points: the

---

network that links all elements, a function that is always located in a power relation, and a thing that appears at the intersection of power relations and the relation of knowledge.² With this definition in mind, the spike becomes a marker for life in operation.

In my sculpture installation “Work #1, 2015,” I fabricated spikes on a modular floor plan to convert this blueprint into an item that seeks to arm itself, while simultaneously drawing attention to its prowess. Spikes mark territory, growth and, of course, serve as a warning, whether applied to the fabricated houses of the 1950s, existing as their own entity, or radiating on a computer screen. Metaphorically, they travel into the terrain of literary defenses and threaten intellect with their primitive nuances – they are in defined engagement with the universe and operate, in a fantasy, as the first primitive tool. Fabricating spikes from fragile porcelain shifts the drama, addressing the fact that most barbed forms simultaneously highlight the vulnerability beneath them. The soft interior of a sea urchin, or the small neck cinched by the spiked collar, are all reenactments of this relation. I’d like the spikes on my architectural works to become small dictators of the base form: essentially, they overtake the edifice, promising an evolution into other territories. The blueprint changes as the spikes increase in number (See figure 1).

²The town had so many tent caterpillars that a gentle, invisible rain was heard in the woods – the sound they made as they ate and shat. Children filled coffee cans with their soft bodies for cash.

The philosophy of American Charles Sanders Peirce (1839-1914) provides a backdrop for art that seeks to take on the biomass with its unknowable intelligence of matter. Unknowable intelligence encapsulates the caterpillar’s decision to make a right turn and encompasses the agenda of the maidenhair fern and the dust mite. It is the Other

that operates in life outside of the human mind and reveals intelligence within the inanimate: for example, the sedimentary layers of a rock report on the environmental history around it and embody knowledge for us to apply to our own interests. Peirce argued that mind, and its thoughts, are a direct result of matter. As long as there is continuity between mind and material, “we ought to suppose a continuity between the characters of mind and matter, so that matter would be nothing but mind that had such indurated habits as to cause it to act with a particularly high degree of mechanical regularity, or routine.” 3

If mind is matter, Peirce’s concept can be applied to the universe at large, where the biomass has an overriding consciousness of sorts: reasoning by analogy, he writes that the “laws of nature are ideas or resolutions in the mind of some vast consciousness who, whether supreme or subordinate, is a Deity relative to us.”4 The impulse of the overriding biomass of earth is, essentially, an intelligence or collection of thoughts ready to be untangled. It is easy to see a resemblance between this “vast consciousness” and the Gaia Theory championed by British Scientist James Lovelock who argues that Earth functions as a single organism.

All species are essential to our comprehension of the world, and I try to harness their activities and physicality to skewer our own organizing principle and perceptions. One of my works deals with insect intelligence by using the material they fabricate to continue their production. I dissemble wasp’s nests and construct a three foot by three foot cube out of their paper. The cube is a construction that folds into itself. It seemingly superimposes human industry over that of nature: our idolizing of a Euclidian object is forced upon the wasp’s paper product to

---


create a grotesque that oscillates between our conceptions of balance and instability. And yet it
discloses no information on what takes place within.

A side interest to the wasp cube is my use of the so-called “minimalist” form in sculpture,
favored by American sculptors in the 1960s, where I repurpose it as one small part of a bio-
engineered machine that fluctuates between utilitarian and useless. Arguably, the cube could be
observed in a museum. Likewise, it could also serve as a new home reconfigured for the wasps
(See figure 2).

3. *The grass was pure, yesterday, but little, brown caps have infected the entire lawn overnight.*

Nature contains ideas – how to light a fire or cure strep throat – in an ever expanding set of
parameters marked out by different materials. The philosopher Thomas Kuhn describes how
constructs provide the framework for scientific discovery:

> Consider the jigsaw puzzle whose pieces are selected at random from each of two
different puzzle boxes. Since that problem is likely to defy (though it might not) even the
most ingenious of men, it cannot serve as a test of skill in solution. In any usual sense it is
not a puzzle at all. Though intrinsic value is no criterion for a puzzle, the assured
existence of a solution is.\(^5\)

Kuhn explains how the paradigm provides the setting to investigate and solve the problem, but
simultaneously cuts off all opportunities for discoveries from outside influences.\(^6\) All inquiry and
investigation relies on a paradigm, which defines an approach to solving a problem while at the
same time dictating to the scientist what problems need to be solved. The paradigm influences
the outcome. The happy accident disturbs the paradigm and prompts an investigation of the
world, no matter how silly or absurd. The paradigm shifts. Scientific investigation makes the
focus of its study the most important thing in the room. The more myopic and insular our

\(^6\) Kuhn, 37.
observations become, the less we are willing to also fix the broken puzzle. “Let us then assume that crises are a necessary precondition for the emergence of novel theories and ask next how the scientist responds to their existence,” says Kuhn. 7

In art-making, I find Kuhn’s proposition of two puzzle pieces from random sets to be fertile ground for unexpected linkages. Art, also a tool of investigation, can be used on topics outside of our cultural anxieties. Following Peirce’s sense of intelligibility within matter, my interest is in the odd chance where the two pieces from different puzzles meet to produce a new way of thinking – a metamorphosis with discreet logics. In Work #3, I pulled together an unlikely alliance between a wasp comb and metal where I poured melted tin into its chambers to fabricate “bullets.” The unlikely pairing was an imaginary harvesting of work – of building an armory out of the nursery of a protective community. The exchange between the delicate paper and the hot, fluid metal form an unexpected fit. From a peripheral glance, the mind perhaps reads the piece as decoration, but a closer look hints at links between our work ethic/militancy and that of the wasp, a creature also gifted with the ability of manipulation through the various breeds’ tendency to insert its larvae into the eggs of other species and the violence of its sting (see figure 3).

4. *We rode in the back of a pickup truck, enjoying the wind roaring over us. A grey bulge, wet and ropey, landed in the truck. It was carrion, dropped by a hawk.*

Logical solutions rely on cause and effect, while the world outside of us is continuously providing new relationships to be untangled, with striking visuals that propose alternative doorways to investigation. British Entomologist Dave Goulson describes the complex relationship between the white European Campion flowers and the moths that pollinate them.

7Kuhn, 77.
When the females are impregnated (Campion flowers have two distinct sexes), they produce chunky balls filled with seed where the Campion caterpillar lives and feeds exclusively:

The small caterpillars live inside the capsule where they are safe from predators, their presence usually given away only by a tiny hole from which protrudes a cluster of droppings, or frass…. eventually the caterpillars grow too large to reside entirely inside the capsule and bite a larger hole from which their camouflaged but fat rear end protrudes, their head still munching away on the remaining seeds inside.⁸

The image of caterpillars with their rears protruding from bulbs is evocative and incomprehensible to those unfamiliar with their life cycle. But all the brutal essentials of our existence are embodied in this surreal proposition – consumption, growth, crowding, housing, sex and transformation.

Our logic needs intervention from the unexpected, or we stop seeing the world. Kuhn laments how excluding the rationality of outside concerns actually hinders the progress of science: “Other problems, including many that had previously been standard, are rejected as metaphysical, as the concerns of another discipline, or sometimes as just too problematic to be worth the time.”⁹ Art, however, goes beyond the limits of rational methods and uncovers its own unique ways to experience the unknown. It permits the discoveries of the world to be seen “feelingly” – it is a product of us, and our emotions give it depth. Seeking the metaphysical within the backdrop of the biomass is akin to the Greek oracles consulting the innards of the sacrifice. Not effective, but provocative.

Crossed perceptions, where the collisions of bio and non-bio synthesize, appeal to me before I can rationally grasp what has actually occurred. The experience of deciphering maggots from dog food in a plastic bag, for example, or discovering that the pattern in the wood is the work of a worm, or the deep, thundering vibration that makes worms leap from the ground

---

⁹Kuhn, 37.
because it mimics the sound of a mole approaching them all provide moments of clouding perception: incorrect conclusions are made at first glance, and yet the transition to discovery provides a brief moment of clarity. It is important to obfuscate, because obfuscation keeps the brain on guard. Logical chains are best redirected, to keep us seeing “feelingly” – to not rely on absolutes. I use the sound of bacon frying to mimic rain in my sculptures to propose uncertainty.

5. Billions of leopard frogs choke the marsh with their sex and eggs, spilling out clouds of embryos, dark as pupils. We fill a bucket with dozens of adults, many of them still linked, and bring them home without reason.

The importance of insinuating human thinking into the paradigm of another organism blurs the line between them and us so that we can learn something about us through them. This way of thinking leads to misinterpretation of the organism.

Matter and its behavior alter our ways of thinking, and the objects that bring about this change take on new meanings. In Ernst Mayr’s *This is Biology: Science of the Living World*, the physical chemist Wilhelm Ostwald defined a sea urchin as being, like any other piece of matter, "a spatially discrete cohesive sum of quantities of energy." The embryologist Hand Dreisch who experienced a “conversion” from mechanistic thinking when he separated a sea urchin embryo at the two-cell stage into two separate embryos of one cell each, observed that these two embryos did not develop into half organisms as the theories proposed, but were able to compensate and grow into two perfect (but smaller) larvae.

The sea urchin becomes a vital object that permits us to untie one knot in understanding the universe, an action that touches on Peirce’s exploration of human perception and its fixation in/on understanding the operations of things seen and unseen. Peirce argued that the material

---

11Mayr, 9.
universe provided a series of signs that allow the mind to connect with its surroundings. The conception of being is a layer that articulates what lies beneath. Every sign represents itself and the underlying orders:

The assertion represents a compulsion which experience, meaning the course of life, brings upon the deliverer to attach the predicate to the subject as a sign of them taken in a particular way. This compulsion strikes him at a certain instance; and he remains under it forever after. It is, therefore, different from the temporary force, which the haecceities exert upon his attention. This new compulsion may pass out of the mind for the time being; but it continues just the same, and will act whenever the occasion arises, that is, whenever those particular haecceities and that first intention are called to mind together. It is, therefore, a permanent conditional force, or law. (3, 435)\(^\text{12}\)

Haecceities, taken from the medieval scholar Duns Scotus, refers to the *thisness* of a thing. These Haecceities refers to the essence or give-ness or jizz of an object, so that our recognition is instantaneous. Peirce suggests Haecceities trigger some underlying force, “a compulsion”, prompts us to seek concrete truths. The sea urchin’s shape presented a framework for investigation that unleashed a greater understanding of the universe and a greater understanding of ourselves. Scientific inquiry allows us to get to know the big through the small, because each is a component of a larger system of life. The element of surprise occurs when the formation of the bigger is contingent on the smaller, a flip-flopping of perception, that may provoke us to consider how art might meet ecology and investigate these matters with its own questions. If our mind is matter, according to Peirce, then the universe is merely an example of intelligence that has been manifested into actual objects: “The only intelligible theory of the universe is that of

object idealism, that matter is effete mind, inveterate habits become physical laws."13 We in turn, have the compulsion to understand things and make connections.

6. Almost every chestnut tree in town was destroyed by tent caterpillars. One family’s yard had the only male chestnut. The owners of the holiday-themed restaurant half a mile away owned the only female. Both families hated one another.

On the other hand, when looking for connections in art, we run the risk of bringing our tropes into the operation of things. A better story would be that the families were friends, but the trees, as it turned out, were not interested in one another. This sort of approach is more useful regarding the concerns of the world these days, because it promotes to us concept that the planet needs a respite from us.

For a while I employed an agate technique where I mixed different clay bodies into a marbled pattern: it was a trick originally created in China to imitate rock formations for the fabrication of teapots and cups. I decided this agate-pattern needed to be liberated from the tea set, which is simultaneously a comforting and deadening metaphor of civilization, and chose to re-fabricate rock: the logic of the craft is collapsed and serves nothing. They were person-made stones, their boulder shapes paired with marble patterns that would never actually appear on a boulder. The most I could do was outfit the pieces with handles, holes for speakers and bolts to keep them from spilling secrets. They are also deceptively light, and very pretty (see figure 4).

7. The cap to the vegetable oil bottle was missing but we kept it anyway. One day, it was pulled out from beneath the counter. A rat had squeezed its way into the bottle and drowned in the oil. Its fur was pressed against the sides of the bottle.

In spite of seemingly standing as an isolated experience, sculpture is a node for connections. The technique of isolating an object recalls the visual motif of the sixteenth-century

nature study – what art historian Janice Neri refers to as “Specimen Logic,” where nature is transformed into objects through the decontextualizing of select creatures. That is, by removing them from their habitat, environments and settings. Albrecht Durer’s rendering of a stag beetle against a white background is a prime example. Durer worshipped the beetle with his craft and his drawing was the synthesis of two species: the human, compelled to draw, and the beetle, naked as any muse.

Sculptors, on average, are natural practitioners of “specimen logic” but the relationship that Durer had with the stag beetle is improbable to return to. Even making an object in this age is an arrogant proposition – it requires power to harvest its raw material, it will end up in a landfill – how can we justify it? Another impediment is how our work lays about us, inert, as a type of exhausted intelligence. To elicit meaning from the biomass through the use of art within the context of specimen logic places me in the position of serving as a witness to the business of the biomass around me, while at the same time, looking for the element of spontaneity and surprise to assault my exhausted viewers. As Margulis points out:

Order is generated by nonconscious repetitious activities. Gaia, as the interweaving network of all life, is alive, aware, and conscious to various degrees in all its cells, bodies, and societies…sensitivity, awareness and responses of plants, protocists, fungi, bacteria, and animals, each in its local environment, constitute the repeating pattern that ultimately underlies global sensitivity and the response of Gaia…

According the Peirce, there is an ever-shifting map of intelligence around us. We frequently misinterpret this inarticulate consciousness for our own ends. As humans, we need the tool of anthropomorphism to enter into this dialogue. Our brains’ operation of intelligence has the benefit of envisioning that which we are not, but we can also acknowledge there are limitations

---

15 Margulis, 126.
16 Peirce, 69.
in the paradigm we are currently stuck with when dealing with life not ours. Specimen Logic, as a visual, can be used to expose these inarticulate voices of exhausted intelligence, hopefully provoking the viewer to think differently. Our brain’s operations of intelligence have the benefit of envisioning that which it – our brain – is not.

Currently, I work with our adaptability by altering our most benign products, such as furniture, to discreet objects reduced to the most basic form, such as a line representing division or extension. They are whittled or undone to become a leaner, barer creature, where the purpose has been changed so that they no longer function, and speak to language of specimen logic (see figure 5).

8. The dog eats crayons and leaves turds tinted purple and blue in the white snow.

We function our best when perverting the world around us. Bernard Mandeville wrote “The Fable of the Bees”, which includes a poem “The Grumbling Hive” that characterized the social structure of the British class at the time it was written in 1714. The hive is filled with vice, bribery and corruption. Finally, Jove steps in and rids the bees of their bad behavior.

Instead of thriving in their new, virtuous home, however, the bees lose their purpose since honesty has eradicated the need for laws, protection, government, warfare and luxury goods. A neighboring swarm chases the bees from their hive, and the few left move into a tree. “Pride and Vanity have built more Hospitals than all the Virtues together,” Mandeville said. He is considered the first modern economist who espoused the “need for greed.”

---

18 Mandeville, 70.
using a fable populated with insects to launch the first philosophical underpinnings of modern capitalism underscores the complexity – and centrality – of our relationship with the Other.

It is a sad coincidence that the hive, the great symbol of industry, has now become the poster child for environmental degradation with the prominence of colony collapse disorder, resulting from the application of neonicotinoid pesticides to food crops. Our system honors our taste for profits and power while robbing organisms of their functions and dignities. As we demarcate the age of the anthropocene, we make perversions – new organisms that consume plastic, new creatures altered by our genetics, new boulders embedded with concrete, new mammals that are genetic aberrations made for our own neediness. Yet there is still mystery, and so discovery. Change proposes the new, layering more intelligence on previous conceptions, and art is a tool to probe this alteration.
Bibliography


Images List

Fig. 1. Work #1, 2016, glazed porcelain, packing foam

Fig. 2. Work #2, 2016, wasp nest, wood, acrylic medium,

Fig. 3. Work #3, 2016, wasp comb, tin

Fig. 4. Work #4, 2015, clay, steel gear

Fig. 5. Work #5, 2016, whittled shelf, missing nest

Fig. 6. Thesis Install Shot, 2016
Fig. 1
Fig. 6