
Where 1

Where

1397

Myrtle Avenue

Unit 4

Brooklyn NY

11237

.com

Where 1

Lea Cetera

Alexandra Lerman

Jesse Greenberg

video

Theodore Sefcik

texts

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October 26 – November 24, 2013

Opening reception and live viewing:
Friday, October 25, 7 – 10pm

Where is pleased to announce "Where 1," the inaugural exhibition and grand opening of this semi-public, high-security shipping container and publishing project in Brooklyn, NY. "Where 1" features sculptures by Lea Cetera, Jesse Greenberg, and Alexandra Lerman, with a video trailer by Ted Sefcik. The related publication, also entitled Where 1, contains essays by Brian Arthur and Carlos Castellanos. This book will be released at the opening reception, and is also available for purchase online.

The exhibition will be viewable 24/7 via live-stream feed online for the duration of the show.

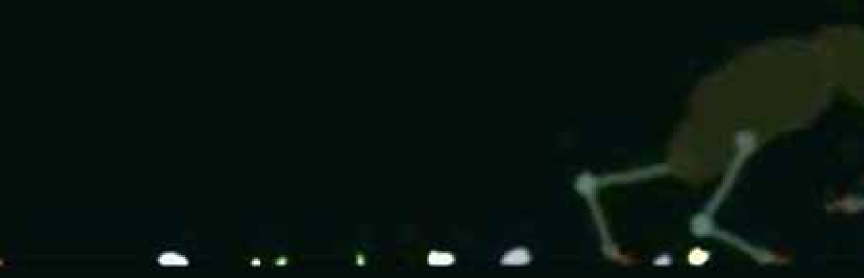
Where is grounded in the assertion that art and its discourse manifest the patterns, behaviors, and properties present in all complex informational systems, and that the mechanisms which produce change and growth in these systems can be applied directly to the field of artistic production vis-à-vis the exhibition format.

This first test, “Where 1,” will focus on the particular feature of complex systems that coalesces autonomous, unrelated agents, stripping some of their independent qualities but resulting in the emergence of a new, more complex form with new affordances. “Where 1” stages this experiment through an exhibition that combines the discrete works of three independent sculptors, held together by gravity and sculptural syntax as a single quasi-object.

Greenberg's rich and colorful practice explores non-representation through expertly cast resin and plastic forms. His work *Growth Brick (Black)* hangs in precarious balance with unfired clay tablets from Lerman's *Release* series. Lerman's works are deeply rooted in a conceptual discourse on legibility, gesture, authorship and the proprietary touch-screen swipe movements the iPhone. These disparate pieces are forced into equivalence by a balance beam, the central element of "Onyx" from Lea Cetera's *Relationships* series. Here the casual, delicate architecture of Formica, ocean stones, styrofoam, acrylic and steel point fun at the legacy of minimal sculpture and even the notion of stable forms. "Onyx" performs the action of a cosmological equals sign, providing the tissue which holds this sculptural organism, and in fact the entire exhibition, together.

Where *can be viewed and contacted through www.1397MyrtleAvenueUnit4BrookInNY11237.com*

"Where 2," curated by A.E. Benenson, is scheduled for early December and will question the infinite regress and holographic limit afforded by the recursive appropriation of historical artworks.



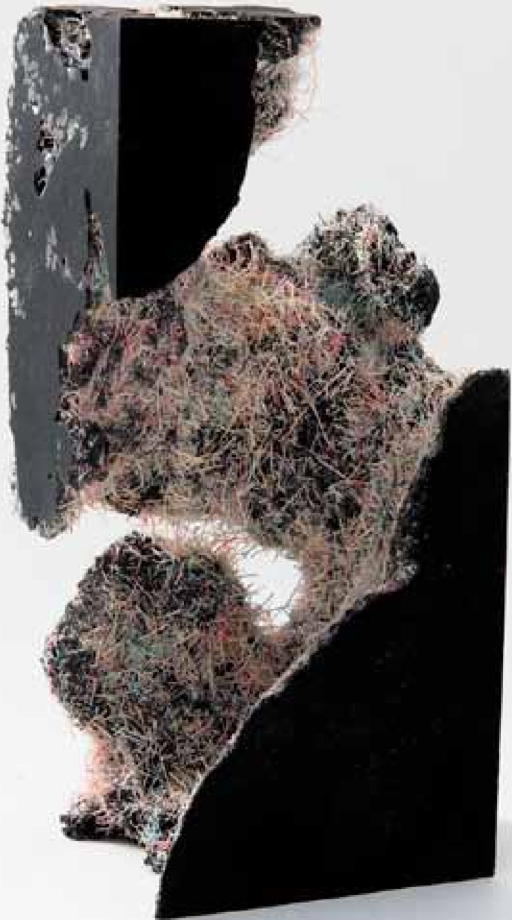
Theodore Sefcik
Amoeba 2013. video still.

Alexandra Lerman, *Release*, 2013.
Unfired clay tablet.

Alexandra Lerman, *Release*, 2013.
Unfired clay tablet.

Alexandra Lerman, *Release*, 2013.
Unfired clay tablet.

Alexandra Lerman, *Release*, 2013.
Unfired clay tablet.



Jesse Greenberg, *Growth Brick (Black),* 2013.
Urethane, resin, pigment.

Lea Cetera, *Onyx,* 2013.
Plywood, Formica, styrofoam, steel, ocean pebble.

I hold in my hands two objects of nearly equal size and weight. One of them is a Lerman sculpture, and I have to be careful I don't drop it—the clay is unfired, and it wouldn't take much to reduce this small work to a pile of sand and dust. Lerman's tablets are not unlike those used 5000 years ago in Sumer as records of business, documentations of events, or binding contracts. Both are made from only a handful of raw materials: sand, straw, stones, minerals, water. In my other hand is an iPhone. I can probably drop this one and it will be okay, but not if the fall exceeds a few feet. The phone and the Sumerian tablet conduct similar operations, but the former is distinguished by having many, many more parts. The number of unique, individual parts inside my iPhone, my pocket brain, exceeds the inventory of items in King Louis XIV's Versailles, a 25.87 square-mile palace.

That includes every silver spoon from its innumerable of kitchens, every cushion of gold brocade from its thousands of feather beds, every book from its 104 libraries, all its candelabras, wax sealed manuscripts, chamber pots, and letter openers.

To wit, Brian Arthur asks a simple question in the following essay: why does the iPhone have so many discrete parts and the clay tablet just a few? What are the mechanisms that produce such an anti-entropic trajectory?

W. Brian Arthur

Does Technology Evolve?

I was very aware as a graduate student that the economy somehow arose from its technologies. That wasn’t new. Karl Marx had written a lot about that and other really good economists in the mid-1800s. But we tend to see an economy as out there and fixed and it uses factories and factories use technologies and machines and things like that. I began to wonder, how does something we call the economy arise out of technologies? I began to realize that every technology I knew about, from the computer to jet engines, started off pretty simple and wound up incredibly complicated, orders of magnitude more complicated than what started off. Then there was a question that had been hanging in the air since the 1860s, posed by archaeologists and anthropologists and a guy called Augustus Pitt Rivers, and by Samuel Butler: does technology as a whole evolve?

Darwin had answered that question in biology. The many species, in what we now call the biosphere, are somehow all related by threads of common ancestry that go way back. That wasn't new to Darwin. His grandfather had said as much, and other people had said as much in the 1700s and early 1800s. What Darwin was able to supply was the mechanism by which that branching and then speciation had occurred. His book was about the origin of species. It wasn't called evolution.

If you take certain technologies — you can take jet engines or you can take refining certain types of metals; the steam engine historically; lasers; computers, or methods for doing things, like sorting algorithms, which are methods. If you take all of those technologies together, can there be a theory of evolution by which they are somehow related by threads of common ancestry to earlier technologies?

Economists, historians, and technology thinkers for decades, at least since Darwin, have been trying to apply Darwin's theory to technology. Say, okay, different designers have different ways to solve problems. That gives you variation. Then the better solutions are selected. So you have variation and selection in technology. That would give you a Theory of Evolution for technology. I'm condensing 150 years worth of thinking since Darwin's book.

But those theories weren't satisfactory. At least they didn't satisfy me. The jet engine didn't evolve out of variations of the air piston engine. In Darwin's scheme, if you get a new species of finch, it's related to some older species of finch but adapted gradually and changed the structure of its beak because of some circumstance. There is a gradual progression until a new species is formed in a slightly different niche and branches off from the old species. You couldn't say that the laser or the jet engine branched off from anything. They were completely new. So I began to realize that there wasn't a satisfactory theory of evolution for technology. In fact, there wasn't a satisfactory theory of anything I could think of in technology.

There is no theory of technology. People greeted the very idea that there could be a theory of technology either with, "I guess you could do that but why would you want to do that?" Or, "I don't know, do we need anything like that? Do we need a theory of technology?" I didn't start to do this academically. It was kind of an obsession. I began to think, yeah, there are some common principles that I could use to think about all of this. So I went underground. I went back to my lab notebooks a few weeks ago when I finished the project, because I was curious to see how long I had been working on this. When I looked at my lab books, I realized I had been working on this project for 13 years. But most of the work was certainly not writing — it was reading and thinking about technology and the history of how technologies came into being — very specific ones — maybe a dozen to twenty technologies, everything from computers to search algorithms. Certain technologies I learned in great detail, just as a biologist would have to study certain types of beetles or something to make sense of their arguments.

What happened was that I went underground in this whole project for about thirteen years. I once read that the mathematician Andrew Wiles, who solved Fermat's Theorem did exactly that. Wiles, I think out of instinct, as a very good Princeton mathematician, decided that he didn't want his embryonic thoughts to be hammered by criticism. He needed space and time to think out his ideas, that he needed to put things together where he wasn't being bothered and questioned all the time. He didn't want to give any competition any ideas that this was getting worked on, so there would be a frenzy of activity somewhere else. Instinctively for 10 or more years, as far as I know, he worked in the attic of his house in Princeton and worked with one or two colleagues who were in on this and decided to hatch the whole plot and bit by bit built up his understanding until he could construct a working version of his theorem. Then he would give it out to a wider set of people to probe and test and so on. I made no such resolution when I started to work on the project around ‘96. But it is essentially what happened. I told very few people. The word came back from the Santa Fe Institute — what has Arthur really been doing? He has some very interesting early work and some promising work, but we haven’t heard anything from him in years.

At any rate, for better or worse, I became convinced that there are so many questions unanswered in technology. What really is technology? How does it work? How does it develop? Is there an overall theory of evolution? Technology was actually a goldmine.

I began to realize that all technologies, all new species of technologies, such as the laser printer that evolved out of Xerox PARC, are composed of already existing elements. When Gary Starkweather started to work on the laser printer in the early 1970s, producing a working version in 1972–1973 down in Palo Alto, he was basically saying, we don't want line printers. They can't print images. They can't change font size. They are basically computer driven typewriters. After a lot of thinking about other ideas, say, writing on cathode ray screens and all, he had the idea that maybe he could get a computer to control a laser beam, very highly focusable, and write (or the word they would have used is paint) an image onto a Xerox drum. So the elements existed: a computer, computer controlled lasers, the elements to control the laser operation and Xerography. And we got the laser printer.

When I started to look at any new species of technology, be it a jet engine or laser printer or sorting algorithms, all of their components already existed (or could be constructed from things that existed). I began to realize that it was possible to put a Theory of Evolution together with combination at the heart of it. So what I'm saying is that technologies evolve from previous technologies by selecting building blocks and putting them together in new ways.

Some people had realized this, and some had written a bit about it, but most of the writing was maybe a paragraph here and maybe a few sentences there, by somebody really smart like Schumpeter 100 years ago, who hadn't gone beyond some preliminary ideas which are very widely quoted. Nobody had worked out this idea about combination. I came to it independently, but didn't do much about it in the '80s. Then I discovered a lot of kind of hand-wavy literature in which people talked about it.

I was faced with another question, and that is, if everything is a combination of something that existed before, we don't have sophisticated technologies like magnetic resonance imaging constructed out of flint or obsidian or whatever we had 10,000 years ago. It's not the original components of 10,000 years ago that are getting combined to give us something really sophisticated like magnetic resonance imaging. I began to realize there is another leg to it, and that is that every so often technologies are used to capture phenomena, in this particular instance nuclear magnetic resonance.

Every so often we use instruments and modalities, methods and technologies, to capture some phenomenon, say, that you can affect the nuclear spin of certain atoms and use that to make certain measurements. That becomes some sort of diagnostic technique. So the two legs of the Theory of Evolution that are in technology, are not at all Darwinian. They are quite different. They are that certain existing building blocks are combined and re-combined, and that every so often some of those technologies get used to capture novel, newly discovered phenomena, and encapsulate those and get further building blocks. Most new technologies that come into being are only useful for their own purpose and don't form other building blocks, but occasionally some do.

What really excites me about this is not so much technology. What really interests me is that astrophysics or cosmologists have a very similar idea, both of the formation of life on earth and of the formation of the universe. Now this is off my beat so maybe I'm a little hazy on this, but after the Big Bang, if you wait long enough — maybe 10 to the minus 27 seconds, eternities of very short magnitude — elementary particles, whatever, quarks, begin to combine in different ways to form elementary particles, which begin to combine to form the basic hadron building blocks, which further combine to give you atoms and the molecules, which over time lead to very rapidly expanding gases, which in turn form stellar systems.

All of these steps are formed by combinations of elements forming new building blocks that give you further combinations. The same is true of early life. I have been talking to people recently at the Santa Fe Institute and they are talking about various reactions in what could be called the evolution of metabolic pathways. You get terribly simple metabolisms forming very early life, like four billion years ago. Then they form certain elements that in combination can give you further elements that are catalyzed by some building blocks that give you yet newer molecules. So the whole of what we call life, building up to RNA and then DNA, form out of structures that are combinations of simpler ones that give you combinations of yet further ones. So in one phrase, to go back to technology, my argument up until my project, I think it's safe to say, was that if you ask people, "What is technology," as a whole they would have said it's a bunch of standalone methods or devices: the Solvay process, the computer, laser printers, and so on, that are sometimes interrelated and have some sort of ancestry.

What I'm saying is no, all of this forms a gigantic chemistry, that the simpler molecules that have formed in technology — the computer, the laser, Xerography — those molecules can be put together to form yet a new molecule, the laser printer, which can be put together to form something more complicated. Technology viewed as a whole is chemistry and its chemistry is still building.

I am glazing over 1000 Plateaus and asking: what is necessary and what is sufficient for a conversation about systems theory in Art? Art with an A.

I wanted to find an author who could write about symbiogenesis without being trendy. If anyone was to desiccate a scientific theory, I wanted to be the offender. I am offended when out-of-field concepts are pared to similes: computer code is like language. Mangos are like Facebook. One or several mangos?

Search terms:
"second-order cybernetics"
"contemporary art"
"Bateson"
"Burnham"

A library database brought me and Carlos Castellanos together.

Carlos Castellanos

Why Cybernetics?

Andrew Pickering argued that cybernetics is an “ontology of unknowability,” a nonmodern way of looking at the world.[1] Against the detached “view from nowhere” that forms the ontology of classical science and engineering, Pickering’s cybernetics offers a model without the sharp Cartesian divide between subject and object. Far from its status in the collective imagination as an apparatus of State control, cybernetics stages a vision of the world where humans and their environment exist in constant co-emergent interplay, each implicated in the development of the other. This ontology of unknowability opens a useful framework for navigating complexity and uncertainty; a cybernetics-inspired curatorial practice views the world as always in flux, and enacts heterogeneous operations in which practitioner and audience may be deeply intertwined.

I want to establish a definition of cybernetics against a hoary web of associations. Cybernetics is a multivalent and meta-disciplinary field of significant breadth and complexity. Derived from the Greek *kybernetes*, or “steersman”, cybernetics is broadly conceived as the study of systems, particularly goal-directed systems or systems that exhibit purposive behaviour. The concept was elaborated by mathematician and “father” of cybernetics Norbert Wiener, whose research into mechanical control systems, e.g. artillery targeting systems, served the Cold War-era American military. The discipline’s association with the State apparatus, authoritarianism, and control derives much from Weiner’s work. But the picture is more complex, and the term “control” requires clarification. For Weiner, control referred to the engineered maintenance of a specific goal by influencing the behavior of a system. In contrast, British cyberneticist Gordon Pask re-defined control as a type of interaction that explicitly moves beyond achieving predefined goals, toward open-ended conversation.[2] Control for Pask is akin to a coming-together that develops protocols or sets of understandings from which to evolve more fruitful interactions. The cybernetic emphasis on holistic relations *between* components, rather than on isolated components, opens up a myriad of relational possibilities.

Writer and art critic Jack Burnham elaborated on a “systems approach to creation,” looking at art whose intelligent systems establish dialogues that expand the art experience, enabling viewers to tap into information-rich environments. Burnham’s crucial insight is that this emergent expansion of the art experience "encourages the recognition of man as an integral part of his environment."[3] Drawing on the work of artists Les Levine and Hans Haacke, as well the cybernetic research of the 1960s, Burnham argued that creatively applied technology can make us more aware of the thin boundaries between organism and envirvonment. Particularly incisive is his perspective on the significance of technology for the "classical view of art and reality," one "which insists that man stand outside of reality in order to observe it."[4] Burnham envisioned possibilities for a reconfiguration of the aesthetic experience in Western art; one where "symbiotic intelligence" — rather than object contemplation — was its ultimate outcome.

These speculations offer fertile ground to further develop experimental arts practices. Cybernetic concepts of boundary, self-reference and structural coupling can be useful in curatorial applications; it is an actively constructed epistemology, as opposed to a passive, positivist reflection of reality. The cybernetic framework sees living systems as complex, adaptive, and entwined in circular relations with their environments. Adopting what Pask referred to as an “ambiguity of role,”[5] artists and curators can challenge deeply held notions of authorship, circulation, and interpretation. The notion of ambiguity I propose is different from Pask’s vernacular conception, though, as well as from the normative definition of something that is vague or idiosyncratic. Rather, I propose the ambiguity described by philosopher Maurice Merleau-Ponty: anything that is undergoing development or is continuously open to determination; something that cannot be objectively explained or subjectively understood except within the context of a continual emergence. In a conversational approach featuring action-grounded dynamics, meanings are constructed via continual circular processes of shifting boundary conditions; control relations provide a practical starting point for such experiments in ambiguity. Boundaries, viewed in cybernetics as semi-permeable and even provisional, may take on new meanings when artists, museums, galleries, curatorial staff, museum-goers, and exhibitions are viewed as systems in an open-ended conversation. Systems-based perspectives enable artistic and curatorial practice to experiment with the boundaries between artist/curator, artwork/curator, artwork/artwork, art/non-art, art/technology, human/technology, etc.

Problems, fits and starts, and outright failures will no doubt occur. But engaging in this type of experimentation may elucidate and contribute to an ethos of mutual co-evolution and co-determination between traditional art-world roles, reflecting a larger consciousness of interdependence: an ecology of art. Required is an embrace of uncertainty and ambiguity in once-comfortable divisions and sets of relations. Adopting such a position may aid in carving out a new aesthetic and ontological space, where boundaries and conversational relations between and among artists, artworks, curators, the public, and culture at large are emerging, rising and collapsing in renegotiation.

1. Pickering, Andrew. 2010. *The Cybernetic Brain: Sketches of Another Future*. Chicago: University of Chicago Press.

2. *Ibid.*

3. Burnham, Jack. 1970. “The Aesthetics of Intelligent Systems.” In *On the Future of Art*, 95–122. New York: Viking Press

4. *Ibid.*

5. Pask, Gordon. 1971. “A Comment, a Case History and a Plan.” In *Cybernetics, Art, and Ideas.*, edited by Jasia Reichardt, 76–99. London: Studio Vista.

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