

Transcript of panel presentation for “(IM)MATERIAL: Industrial and Post-Industrial Fabrication” held at the Judd Foundation, April 10th, 2015

Keith Tilford

The main things I want to consider in the context of artistic labor and post-industrial processes are the logic of platforms in general but also how an artistic project might function as a platform and how the construction of artworks can be conceptualized in a methodological relation to the scientific fabrication of models.

In the case of the platform, this is something that is also relevant to other collaborative and theoretical work that I do with Fixing the Future, where we organize mostly online events and seminars. It's something that has been made possible through the existence of social media and communications technologies like Google Hangouts. So, in a sense it's a platform that makes use of existing platforms.

Computing platforms in general are an example of platforms we're all familiar with, where you have a pre-existing architecture (hardware plus an Operating System) for which any number of programs can be designed to run with. But this doesn't necessarily describe what platforms are. And here I really have to rely on an understanding of their logic that I take from strategist and design theorist Ben Singleton. For Singleton, platforms are always the index of a localized complexity that 'inhabits' whatever entity happens to be the platform, and its embeddedness in a more complex structure is what enables it to generate consequences within a larger adaptive system, affording its users developmentality in the form of a revise/construct loop, giving rise to a sort of black box. As Singleton puts it, platforms "emerge in the ruins of planning" since the latter forces a pre-determined logic which limits their range of functionality and acts to prevent future changes in function. While a plan obliges that it be put to an 'appropriate use', platforms make no such specifications, but only constrain their user through a kind of 'compatibility requirement' that results in a relatively stable 'host for other behaviors' whose downstream consequences feedback into the larger complex structure (and this is what makes it a kind of black box). And there is also a sense in which anything might become a platform, so even Language and DNA at the level of cultural and biological evolution can be seen as platforms in the way just described. And this is an analysis of platforms that Singleton takes from the philosopher William Wimsatt, who looks at evolutionary structures by way of what he calls their "generative entrenchment", which is meant to describe for a determined entity "a measure of how much of the generated structure or activity of a complex system depends upon the presence or activity of that entity".

Even though Wimsatt himself never uses the term 'platform', it can nonetheless be understood as interchangeable with his notion of generative entrenchment. Either term is actually a sufficient conceptual architecture for describing a technological cultural ecosystem such as the one we currently

inhabit, in that all its facets are entangled to a degree that they become nearly inseparable, while certain entrenched elements come to act as scaffolding for the coevolution of other entities and processes. One of Wimsatt's examples in regards to this is the emergence of "armory practices", which evolved from a demand for interchangeability among components, which then led to the establishment of gauges and standards, which in turn propagated to changes in manufacturing and labor processes. This kind of developmental process that leads to something becoming generatively entrenched also leads to it being nearly impossible to remove as an entity. So an obvious example Singleton uses here is Capitalism, since it is an entrenchment with multiple overlapping entrenchments connected at every level of social existence - especially in an era of affective labor, cognitive labor, the cognitariat, immaterial labor, what have you.

But, coming back to art, I wanted to ask how works of art can be understood to already behave as platforms without even building it into their internal logic? Actually the conditions through which this happens today are easily legible on the surface of things, since works of art are platforms for all kinds of 'outsourced labor', so to speak. The generalized artwork serves as an anonymous agent within the global circulation of images, and the exhibition in turn facilitates an array of services associated with it, such as docents, security guards, the production of critical, curatorial, or historical discourse, the press release which frames it as a substance, as well as the shipping and installation of works—all of which help to facilitate the artwork's collection, its financial speculation and an end product: the work's value in cultural and monetary terms on current and future markets. Then there are the platforms of the museum, the gallery or the art center as they exist today, which serve similar or at least overlapping and intersecting functions. This is how platforms can be understood as stacked, in that there are systemic hierarchies as well as knots at specific points of a global complexity. In this way an institutional apparatus is equally a platform for the platform of contemporary art—if we can understand Contemporary Art to be a kind of generic established logic (or 'meta-genre of generic indeterminacy' in Suhail Malik's terms) which serves to manufacture a range of superposed and transdisciplinary practices.

And as they operate, both Contemporary Art and the institution serve as agencies for the local manufacturing and global distribution of aesthetic experience as the primary determining constraint onto which their objectives become mapped. And what is interesting to note is that the institutional apparatus which exists *for* this aesthetic experience is actually the most advanced post-industrial fabrication technology available in the artworld. That is if we understand 'post-industrial fabrication' to denote a relatively stable structure able to replicate a full spectrum of artifacts. In a sense the institution is a kind of PC model for those on the inside, in that the basic architecture is unchanging, but at the level of directorial and curatorial interface it allows for any number of elements and support features to be combined, which can be quickly swapped out and augmented to meet changing demands. Capable of effortlessly weaving together real estate, speculative finance, and contemporary art through a set of

complex operations it works in turn to help generate and sustain a neoliberal myth of individualized freedoms upon which its validation as a machinery of subjective aesthetic experience is predicated. But this is also where artistic labor, through the cultural value assigned to it, ends up participating in a model that is perfectly compatible with the neoliberal management of subjects *through* their freedoms. In one sense, the institution is a Rapid Design Module for modern subjectivities. It fashions an array of modalities familiar within art discourse such as the emancipated spectator, the immersive, transformative environment, or the liberating, questioning, or 'critically engaged' installation. As a ground upon which Contemporary Art operates, the primacy of aesthetic experience is equivalent to what the 20th century American philosopher Wilfred Sellars termed the 'myth of the given' – which for Sellars indicated a basic cognitive state collectively assumed as foundational that serves as a support for our general access to knowledge.

This is maybe one of the first problems of approaching technologies within the conditions of present day capitalism as though they can *inherently* afford us emancipatory possibilities, since not every technology is '*materially*' technological, per se— and the possibility of such emancipation becomes problematic especially when their entire existence literally *banks* on offering up the illusion of such possibilities to experience.

This is why anytime the systemic prerequisites of generative entrenchment obtains, it becomes necessary to think analytically of how the imbricated vectors of platforms can be understood in non-isomorphic terms. I.e., how can an artwork or a practice become a platform for other kinds of thinking which strictly deviate in a manner that would be *non-trivial* from the dominant modes that have already been outlined as a consequence of their entrenchment within capitalist logic? This for me is a principle problem and question for art, especially if we can't rely on Contemporary Art as a viable 'Operating System' adequate to a future for which post-capitalism is the signifier. The question arises: so you have a platform, so what? It must then be asked "how does it ramify?", meaning what pathways does it (or can it) actually open up?

This is where I want to focus on scientific models, since models are also platforms.—One of the most respected voices in this territory of the philosophy of science is Margaret Morrison, whose work attempts to understand the role and function of scientific models as well as what their relationship is to theory in scientific practice. According to Morrison, while it is a science's abstract theoretical principles that constrains the class of allowable models as concerns their target, the models themselves are autonomous (at least *partially*) in relation to these theories. This is because the model is, according to her, "able to mediate between theory and the world and intervene in both domains".⁽¹⁾ So, models have a partial dependence on theory and a partial dependence on the world, and because of how they are constructed in accord with this partial dependence they are able to gain a functional independence. This is incidentally similar to what Alain Badiou says in his first book *The Concept of Model*, where

the functional independence of a model is said to result from its artificiality, which absolves it of any responsibility to administer proof.ⁱ In a sense, scientific models are specific kinds of fictional devices. Yet for Morrison, even if not all models should be considered *exclusively* as fictions, the existence of fictional models (in some of her examples the frictionless plane or the 'unrealistic assumptions' of infinite populations in genetics) are still able to deliver information. But *how* they contain information is in no way obvious. I'll use another one of Morrison's examples, which is that of Faraday's 19th century model of lines of force (fig. 1) in the space surrounding a magnet. So Maxwell comes along and looks at this, then constructs a model based on the theory of the ether, which looks like this (fig.2). From this Maxwell is able to mathematize the information contained in the model, obtaining what we now know as Maxwell's Equations (fig.3).ⁱⁱ

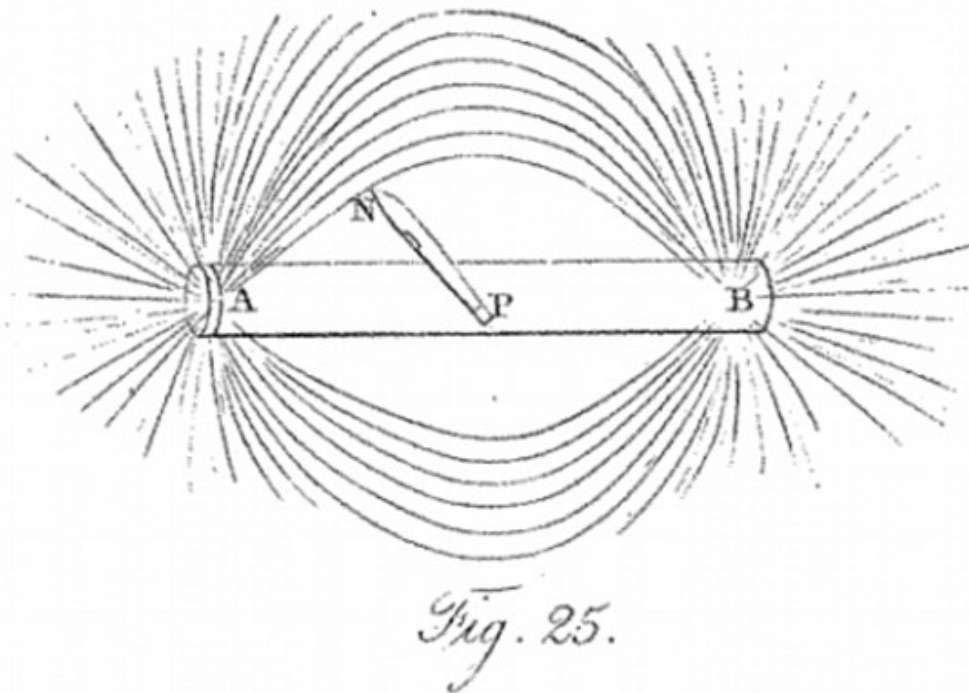


fig. 1

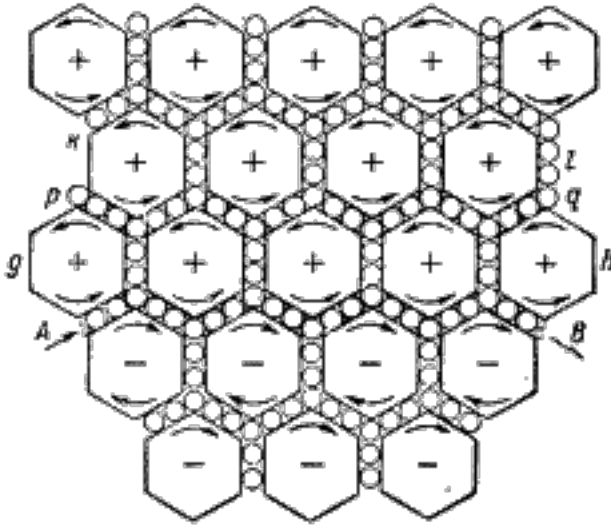


fig. 2

$$\begin{array}{ll}
 \nabla \cdot \vec{E} = \frac{\rho}{\epsilon_0} = 4\pi k\rho & \oint \vec{E} \cdot d\vec{A} = \frac{q}{\epsilon_0} \\
 \nabla \cdot \vec{B} = 0 & \oint \vec{B} \cdot d\vec{A} = 0 \\
 \nabla \times \vec{E} = -\frac{\partial \vec{B}}{\partial t} & \oint \vec{E} \cdot d\vec{s} = -\frac{d\Phi_B}{dt} \\
 \nabla \times \vec{B} = \frac{\vec{J}}{\epsilon_0 c^2} + \frac{1}{c^2} \frac{\partial \vec{E}}{\partial t} & \oint \vec{B} \cdot d\vec{s} = \mu_0 i + \frac{1}{c^2} \frac{\partial}{\partial t} \int \vec{E} \cdot d\vec{A}
 \end{array}$$

fig. 3

Morrison uses this as an example because it is not at all obvious how we can understand models as containing the kind of information that would enable us to move from the image to its mathematization. The point being that while we can understand the model as a kind of fiction, its status as a fiction is not one of mere exemplification and illustration, since exemplification and illustration can't tell us much because they lack the dynamical properties necessary to provide us with the components sufficient for rational description. This is her way of saying that, yes, a scientific model is a fiction but is more complex than a literary or strictly artistic fiction. Which is fine. Art is not science. But at the same time, art is also not reducible to exemplification and illustration and it does hold a peculiar relationship to science. It is even interesting to note that many scientists look upon the kind of labor performed in constructing models as an art or a craft. And while a fusion between art and science would be irrational, what I would propose

is that there can be something like a science of art that is internal to the procedures of art or operates on top of them rather than from some exterior position (so, something that is not exactly a 'meta-art', then in Adrian Piper's sense). And what I want to argue is that in a sense one of the things that art can do is the inverse of this movement in Morrison's example, since often what we are doing as practitioners is adjusting our perceptions and cognitions to a world that resembles more and more Maxwell's equations – not simply from an ontological perspective of a scientifically defined and mathematized Real, but because the world consists of highly abstract social relations mediated through mechanisms of finance, information, advertising or whatever we agree to comprise the global complexities of a 'society of the spectacle', Late Capitalism, Biopolitics, etc. Art works to model these complexities and make them intelligible. For Morrison, the larger purpose of models is to provide the user with 'technologies for investigation' to be manipulated, so that something (about the world, theory, structure, or about the model itself...) can be learned through this manipulation.^[3] And this is why I think it is important to understand art as a specific kind of multi-modal cognitive technology. Multi-modal because it makes use of and synthesizes various modes of cognition (perception, sensation, inference, abduction, hypothesis, intuition, etc.). And it is a cognitive technology simply because, rather than being an essential form of free expression, it is an invented and artificial means of achieving cognitive aims—for which I would prioritize learning and understanding within our capacities as reasoning agents over the indeterminacies of enjoyment and experience.

So, in treating art as a form of model building and a 'technology of investigation' rather than, say, a phenomenological playground, art might be able to contribute its labor to the possibility of a post-capitalist future as a heuristic device to navigate the complexities of the world. Approaching it analytically as a cognitive technology rather than a poetic form of 'free expression' might also begin to provide the means necessary to de-mystify art and its procedures in a way that would unbind their fusions with subjective experience and self-interest or even economically determined expectations of what a work of art is or should be—or for that matter, where it should arise *from*. This latter point I take to be of the utmost importance, especially because it is within the domain of art that we encounter all kinds of assumptions about creativity and the subjectivity of the artist—often in ways that are assumed simply by whatever medium the artist happens to be working with. But of course artistic labor is not autonomous, because experience is not autonomous (at least not in any sense that could be given or assumed rather than constructed) since in fact they participate in all of these larger enmeshed and entrenched systems. To do the inverse—to insist on art as primarily a form of free poetic expression providing for experience, is actually to aid in its continued manipulation as *not actually counting as work*. Which is another way of saying a complacency with not actually being paid.

So I want to conclude by responding to a recent dialogue between Nick Srnicek and Suhail Malik that took place at Mercer Union in Toronto a few weeks back entitled "What Can Art Do for Post-Capitalism?", which the people at

Mercer Union were kind enough to let us post in video form on Fixing the Future's website so I just watched it.

Srnicek's position takes the neoliberal 'domestication of the future' to be indicative of a contradiction, wherein the fixed horizons set by capital collide with what experience registers to be continuous change and novelty. But this perception of change is a mere appearance that signals an insufficiency of strictly empirical accounts to provide us with any real sense of direction. Here, the ability of aesthetic experience to tell us that *something is thus and so* is undermined by the pervasiveness of abstractions which determine available futures masquerading as free possibilities. These abstractions are extremely adept at persuading us that our perception of change and the choice among available futures is a real freedom. But this is a liberal freedom symptomatic of a generalized disorientation that has led to a deficiency in our capacities to perform what Frederic Jameson refers to as 'cognitive mapping'. According to Srnicek, the world has become so complex and accelerated (but accelerated *without* direction) that we falter when it comes to orienting ourselves and navigating these complexities. And he suggests that a possible solution to this, at least at the level of art's contribution, would be to embrace the outsourcing of non-routine cognitive labor performed by machines, i.e. that a deficit in the capacities to cognitively map the world can be overcome through the use of technical models which can help us to, as he put it, "aesthetically render capitalism". And at least to provisionally agree with him, if the conditions of post-industrial labor indicate anything it is that new models need to be constructed that do not submit the imagination of possible futures to capitalism's horizons of expectation and its stultification of time.

Malik's response to this is that appealing to 'cognitive mapping' provides a reductive vision of art as a form of data visualization. Which is fair enough. He thus rejects the notion of cognitive mapping as a way out of complexity since a schematic of complexity is not an adequate rendition of that complexity. So, Malik argues for disorientation as a condition for art, so that rather than reduce the complexities to a schematic, artistic procedures, immanent to complexity, should perform an "amplification and ramification of complexities". Yet at the same time he is aware that in light of emerging technologies this kind of affirmation risks art lapsing into some technological sublime. What is curious is that Malik makes an argument against the logic of Contemporary Art as an a-systemic genre without identity which is incapable of adequately gaining systemic traction (since within Contemporary Art's logic artworks are indeterminate in their meaning because they mean something different for any-viewer-whatsoever), while simultaneously he affirms Contemporary Art's expertise at 'mediatic interventions' as a resource for a re-determination of art that would not be continuous with Contemporary Art. But here I think it is important to understand what should happen to something when it becomes a resource for something else. I am thinking in particular of the way in which Althusser described the conceptual arsenals of any new science or new theoretical continent. Althusser noted that concepts could not simply be borrowed from another domain or expected to be available for extraction from the

new one. Rather, they had to be 'imported' and adapted to the new terrain, which required both a change in their form and a generalization of their content. So what I would suggest is that there is something like a synthesis that needs to take place, where art can become a heuristic device to navigate complexities, but the complexities are not indeterminate in their content or reduced to a schematic. This is why I am interested in thinking artworks in relation to the scientific fabrication of models, since in order to understand how scientific models work and what they are, they necessarily have to be approached at the level of their theoretical and conceptual content, which is specific. If art is to be a viable mode for making complexities intelligible, it must also take responsibility to the determinable nature of its content in its methods of formalization. This would likewise bring about a change in the dimensions of art's realizability as a project and would also demand—if not outright require—a change in its function.

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ⁱ Alain Badiou, *The Concept of Model*, eds. And trans. Zachary Luke Fraser and Tzuchien Tho, (re:press, 2002), p. 10.

ⁱⁱ I take this reference as well as those examples of the frictionless plane and infinite populations from Margaret Morrison's lecture "What is the Role of Fictions in Science": https://www.youtube.com/watch?v=VrQcrS_dpro