Line Drawing

There is no shortage of analyses in regards to the questions surrounding technology, machines, the distinction between the organic and the inorganic, between the biological and the mechanical, or the possibility of artificial intelligence. In an age seemingly defined by the omnipresence of technological marvels it is difficult not to consider questions in regards to technology; its apparent omnipresence demarcates it as a uniquely important consideration for modern man; it envelopes the entire sphere of his intelligible reality. We are a technological people, creatures inseparably linked to their utilization of what we term technology, as if it is our own evolutionary adaptation to utilize it as such; instead of claws or fur, electro-conductive organs or sensor-spines, we have alloys and synthesized compounds, the sword and the jacket, medicine and marvelous adaptations of our *own* design. The question to be posited here is this; what is it that we term technology? What does the term properly refer to? That is to say, if it is truly that which defines us on so many levels, how can it be that we can scarcely say what it *is* with any satisfaction or agreement? It is perhaps because the categories employed in terms of many traditional discussions of technology relegate it to a certain sphere of applicability, namely, the mechanical, which itself is considered quite distinct from the biological; mechanical in the sense of metal and gears, circuits and the like, the common conception of the mechanical. We consider technology, foremost, to refer to complex machines of this common sort, often times forgetting that a simple rock, shaped and sharpened against another stone, was once the pinnacle of mankind's technological achievement and that "machine" need not refer to the metallic as we so often think. Beyond this, our modern history books, even the most bland, surface level accounts of the traditional linear-model of history, are littered with terms like "communist machine" and "war machine", where these terms certainly do not refer to individual machines, such as a communist artillery cannon or a German panzer, but to a political system and an army.

What then, links these things together? What is it that joins them together categorically? In order to define the term technology in a more rigorous and thorough fashion, and in order to do so in a way that fluidly accounts for clockwork machines and computers, medical breakthroughs, sharpened rocks, political machines such as capitalism, and even biological organisms, a very different definition of technology needs to be posited. Furthermore, this definition must avoid the pitfalls of becoming excessively general such that nothing can be gleaned from it at all; it must have practical applicability. Thus, the following definition will be posited: technology refers to the establishment and thus severing of relations between objects, where "objects" can refer to both concrete and non-concrete elements, such that a thought or an atom can both be appropriately considered objects in this sense. This definition, foremost, is not uniquely human; it is not something that only humans participate in, however, it will, as will be demonstrated in the following analysis, have a special meaning in terms of the human and other highly intelligent animals, as it well should if it is to avoid the pitfalls of excessive generality. One cannot deny that humanity's relationship to technology is distinct from that of other animal life, for this is precisely why it has been a topic of so much analysis over the centuries.

To begin, consider the following example of a simple technology, a sharpened stone attached to a stick: a spear. The rock, the vine, and the stick are all naturally occurring objects; man has not built them, merely altered their relationship to one another; he sharpens the rock by grinding away at it with another rock, he intertwines vines into rope, and breaks the branch from a tree, pulls away the excess such that it becomes a straight pole, leafless and branchless itself, and thus, he has the elements of his spear. He ties the stone to the stick, and shows the technique of constructing the spear to others, and together, with their spears, humans are able to slay a large animal, one beyond the reach of their bodies without their now extended arms, wooden and stone, sharp, reliable, penetrating, incapable of feeling pain if broken. In this example, all that has taken place is that man has brought existing objects into a new relationship with one another; the stone with another stone, the tree with the branch, the vines with one another, and thus the vines to the

stone to the branch. The relationship between the tree and the branch, one in which the branch is part of the tree, is severed; the previous relation is no more, replaced with a new one, the branch becomes its own object, a new object, new only in terms of its relationship to everything else, now altered by its removal from the tree. A new relation has been established between the stones as well, one of mutual destruction, for they grind against one another in the hands of man until they have been sufficiently destroyed such that what remains is a sharpened hunk of stone: a spear tip. These relationships could be defined in various ways, conceived of in various ways, but what is assuredly taking place in this example is the establishment of new relations between objects, and thus the severing of prior relations; every act of creation is an act of destruction, and the reverse as well. Beyond this, there is the establishment of a new relationship between man and the objects, man and the new object he constitutes from those objects, between man and the animal that he slays with the spear, and further, between man and his reality because of this. This final step, the establishment of a new reality and the relationship that it entails, is present throughout the entire process; things are being laid out here in a conspicuously linear fashion for the sake of clarity. Man awoke yesterday hungry in a world of enormous and dangerous beasts, he brought objects around him into a new relationship with himself and with each other, and upon doing so, realized the possible application of what he had done, in one way or another, and tonight he sleeps in a world in which his stomach is full and the beasts are not only no longer as dangerous, but now they are recognized as food, and perhaps easily acquired food at that, depending on the effectiveness of the spear. What was dangerous is so no longer, where there was no food now there is; there could be no clearer example of an altered reality .

Once again, leaving aside the obvious linearity of the example, and thus the narrative nature of its presentation, reality for man has been altered; his relationship to his world is fundamentally different *through and by* the spear. Relations were severed, new ones established by man, and thus the sphere of man's intelligible reality is altered, or perhaps in this instance expanded; in the world without the spear it was perhaps unintelligible to slay a large beast. Why

was this so? Because it had not been done and nothing at all had made it seem as if it could be done. If it was previously intelligible, previously conceivable to kill so large a beast, it was so due to the discovery of dead beasts, or the experience of perhaps seeing them kill one another. Regardless, the conceivability of the idea of a man slaying a creature of such size becomes possible only when man has been positioned in a certain relationship to that beast, either one of technological superiority, such as with the genesis of the spear, or by means of seeing the beast dead from other means, which thus creates a relationship between man and the notion of a dead beast, and thus of them being killed. This notion of conceivability and its limits presented here in the simplified form of the narrative of the spear is precisely what is touched upon in Georges Canguilhem's *Machine and Organism* when he states,

> When Descartes looks to machines to explain how organisms work, he invokes spring-operated and hydraulic automata. As a result, he owes a great intellectual debt to the ideas behind the technical creations of his own time, including clocks and watches, water mills and church organs of the early seventeenth century. We can say, then, that as long as the concept of the human and the animal body is inextricably "tied" to the machine, it is not possible to offer an explanation of the body in terms of the machine. Historically, it was not possible to conceive of such an explanation until the day that human ingenuity created mechanical devices that not only imitated organic movements…but also required no human intervention except to construct them and set them going (Canguilhem 49).

What Canguilhem observes then, is that no comparison between man and machine could be drawn until machine became sufficiently "like man" for the comparison to be a conceivable one. Man did not compare himself readily to the plow, but instead to the clock with its seemingly autonomous and regular movement, he did indeed. Just as in the example of the spear, what is conceivable is limited by experience; when machines of sufficient complexity and similarity to man came into being, the notion of "man a machine" became conceivable. A series of relations are severed and others established and thus the sphere of man's intelligible reality altered; the beast is now quite killable, not so dangerous, and food abounds. There is, though, another result to this process: the fact that man's sphere of intelligible reality will necessarily encompass man himself; therefore, the new possibilities opened up to man by the technology of the spear do not just alter his relationship to large beasts that he slays with it, but to himself. Man is a part of his

own reality; his intelligible sphere contains his own body, his own capacities and possibilities for activity. When that sphere is altered or re-established, when the technology of the spear establishes new relations between man and the world around him, it simultaneously establishes a new relation between man and himself, a new ontology of the human, now expanded in terms of its possibilities, or capacities, for activity. When man's intelligible reality is altered, *man,* as a concept, is correspondingly altered in relationship to it, a fact that will be discussed in the analysis to come.

When one considers the definition of technology being posited here, the spear is certainly not the advent of technology. If it is to refer to the establishment and severing of relations between objects, then every animal is a technology, nature itself technological, and this, seemingly, is not inappropriate. The talons of the hawk are a technology in that they establish a certain relationship between the hawk and its world and prey, just as its wings do; it is either on the ground or in the sky, above or below. In the earlier example there is more technology at work than the spear, for man himself is a technology. If the technology that is the spear is such because of the establishment and severing of relations between objects, then man's relation to other men, the "hunting party" is a technology as well, the establishment of a relationship between objects, in this case human beings, that alters their relationship to their world and thus their reality; one man with no spear is nothing to, say, a mammoth, whereas ten men with ten spears can bring the mammoth down. Man himself is a technology, and he utilizes that human technology further in his utilization of others: it is a social technology.

The consideration that is most crucial now is the notion of intention. Leaving aside the possibility of a creator God, for there is no such being, the talons of the hawk are not created by anyone's intention nor did the hawk create them for itself. Various natural forces, such as the evolutionary process, brought the hawk into a certain relationship with its world, with the clouds and the sky through its wings, with its prey through its talons and terrifyingly high speed. Thus, nature establishes what can be properly termed, given the current definition, technology. If this is

the case, has not the definition fallen into the pitfalls of excessive generality? Is not everything a technology and thus the category a useless one? In order to deal with this issue, consider, instead of the similarities, as has been done above, the differences between the spear and the talons of the hawk. The spear, rather obviously, was constructed by man for man, not by natural forces alone. In other words, it is not man's technology that is unique, but man himself, in the sense that the human animal is able, for whatever reason (for this is not meant to be a notion attached to the idea of the liberal subject and intentionality but instead to a certain type of creature, a human creature, with human attributes) to sever and establish new relations between objects. Though the hawk does this too, for it severs the relationship between itself and its prey and establishes a new one the moment it catches its prey in its talons, alters its relationship to the ground the moment it takes flight, it only does so in a limited sense. For the purposes of further discussion, let us term the capacity to establish and severe relations *by animals such as ourselves* that constitutes technology as *creativity*. That is, creativity will here refer to a creature's capacity to establish and sever relations between objects. In this sense, the hawk is not a highly creative creature, it can only affect certain relations between certain objects and it only has at its disposal certain technologies. The human- though it is not entirely alone, for the ape and the dolphin seem rather creative as well- is a highly creative animal. The ant can take the soil and create, the ant's social organization is a technological marvel, as is the home the ants build for themselves, but this is a relation between ants and soil, when confronted with rock or water, they are not able to alter their relationship to it. Man can; man is highly creative in the sense that the human animal, and again, some others not being mentioned here by name, is constantly, either knowingly or unknowingly, severing and establishing relations between objects, between himself as an object and those he manipulates, and thus between himself and his world, producing reality with each severing and linking. One can see the distinction between this level of creativity, this ceaseless creativity on the part of man, and that of the ant, though both construct new technologies from what is around them.

Thus, as was previously touched upon, this definition of technology indeed has a unique

relevance in terms of humans and other highly creative animals, for in their cases it refers not just

to the relationships established by natural forces, but to those they have established themselves;

this is beginning to sound more like "technology" as our culture is accustomed to thinking of it.

This must, of course, be taken further than the example of the hawk and the spear. Consider

another type of machine, a "war machine", the term employed here in the most common form, in

the fashion that any regular person might refer to, for instance, the Nazi war machine. Once

again, this refers to neither panzers nor guns, and yet it refers to both. In his work *Bloodless*

Transfusion Manuel DeLanda refers to Frederick the Great's army, Napoleon's army, and the

German blitzkrieg as various sorts of machines. The specifics of his distinctions between the

three are of little relevance here. For the purposes of this example consider the blitzkrieg.

DeLanda states that,

> If Frederick the Great's phalanx was the ultimate clockwork army, and Napoleon's
> armies represented the first motor in history, the German *Blitzkrieg* was the first example
> of the distributed network: a machine integrating various elements through the use of
> radio communications. As the flow of information in a system became more important
> than the flow of energy, the emphasis switched from machines with components in
> physical contact with each other to machines with components operating over vast
> geographical distances (DeLanda 18).

Consider the above in regards to technology as it has been posited here. The blitzkrieg is

indeed a technology unto itself. It establishes new relations between objects, men in the field,

divisions of men, radios, geographical locations, etc., and at the same time it severs others,

namely those of "physical contact" in many cases, just as DeLanda says. They no longer connect

physically but through radio signals. Furthermore, the blitzkrieg altered the sphere of what was

intelligible, of what is real or can be real in terms of warfare. There can be little doubt that few

expected the Nazi army to be able to operate in such a fashion as it did when it rolled into Poland

and subsequently France, taking each country in a matter of weeks. The reality of war, of what

could be done, was changed for all onlookers when the technological war machine that was the

Nazi army stepped out and severed the relationship between itself and its neighboring countries

and established one of conflict and military dominance. The blitzkrieg, and the Nazi war machine as a whole, is certainly, within the framework being posited here, a technology; one need not stretch the definition whatsoever in order to account for this sort of machine, which ultimately is the strength of conceiving of technology in this way.

A machine is an example of a technology, but not synonymous with it, for the machine, complex or simple as it may be, will be posited here as always an example of a technology, a certain relationship or series of relationships established by man. Thus, this definition has further served as a means of differentiating mechanical technology from non-mechanical technology, specifically from biological technology. A mechanical model can indeed be employed in terms of the body of the hawk, and on the other hand a biological model may be employed in regards to a machine, as Canguilhem explains in *Machine and Organism*. However, this, given technology as it is defined here, should be obviously possible, for both are cases of certain relationships between objects, metal and gears, sinew and bone, and ultimately, the difference between them lies in the kinds of relationships, chemical, electrical, or physical, that constitute them as a series of interwoven relations. Thus, the bird is a technology, as are we, and so is the clock, and the war machine, each fitting the definition of technology in its own way, yet in no way compromising the consistency of that definition. The bird remains distinct from the clock, as it should, but only on the grounds of reasonable dissimilarity, one created by natural forces, the other by a specific animal, the human. Both function as a unity of relationships, though the line drawn around a series of relationships that defines that series as a "unity" can be rather ambiguous, and this issue will be addressed later on. The key difference lies exactly where it seems most appropriate. The bird, as a conscious animal in its own right, is a technology, its talons a technology through which it severs and establishes relations, and thus it is creative to some degree, creative in terms of its own reality, although, due to the limitations in terms of its creativity, it is largely unable to alter that reality in the fashion that a more creative creature can, merely by thinking of things differently. The clock, or to use a better example, the spear, is a technology through which man

establishes new relations and severs others: it differs from the technology of the bird in that man made the spear, brought the objects that constitute it into relation himself, and therefore employs it as a means of establishing relations anew; therefore, we will term it a machine. Thus, the difference between the technology of the bird and that of the spear, the technology that is man himself and his tool, lies in that fact that the tool is a technology *through which* the technology that constituted it, the human, is able to extend its own sphere of intelligibility by virtue of the capacity to sever and establish relations far more regularly, far more frequently, and to a far greater degree than the bird. The talons of the bird differ from the bird itself in the same fashion as the spear differs from man himself save for the fact that the bird did not design the talons of its own accord. Thus, though the talons are a tool for the bird with which it can sever and establish relations between objects, it is not only a limited tool but one that is physically part of the bird, born with it and thus not of its own design. If we are to remain consistent, then one could say that man's high level of creativity, man's *capacity* to sever and establish relationships between objects, to generate technology, is man's technological equivalent to the talons of the bird, an attribute man did not design of his own accord but which still affords him the capacity that the bird is afforded by its talons, except in a far less limited sense; the objects *generated* by this creativity are what are being posited as distinct from the talons of the bird.

The distinctions here between man, the bird, the talons of the bird, and the spear, all examples of technology under this definition, seem to fall in appropriate places. In other words, the distinctions seem fairly reasonable and practical. They are not distinguished based on man making one and nature the other, but on natural forces creating one *directly*, and a result of natural forces, man himself, employing his own creative capacity, making the other. What makes this not a case of nature opposed to man-made is that the same distinction can be drawn between ant-made and constituted by natural forces. Natural forces here refers to a sort of what we may call *first tier technology*, relations that were established by the forces of the world, nature, or whatever one decides to call it. The spear is a sort of *second tier technology*, as is the anthill and

the beaver dam, technologies born of the severing and establishment of relations between objects by the creative capacity of a life form of its own accord. For the sake of clarity, within the framework being presented here, "machine" refers to second tier technologies created *specifically by man*; "own accord" here is not meant to imply conscious intentionality in the sense of "I want to make this thing, so I'm going to", for the ant does not seem to "want" to make its hill so much as its instincts seem to drive it to do so, and the same may very well be the case for humans. What is meant is that the ant and the human both bring objects into relations through their own activity whereas the bird does not bring its talons into existence by means of establishing connections between objects already present around it. This, returning to an earlier point, is the difference between technology that is born of creativity and technology that is born of natural forces, a difference that is not meant to be indicative of any essential dichotomy between man and nature as such, between creative animals and nature, but merely a categorical difference drawn where it seems appropriate to draw such a distinction.

Given what has just been said however, what is to differentiate man from a machine of his own design that builds other machines? Foremost, since man built the initial machine, the products of further machines can also be defined as "machines" in the sense posited above. Furthermore, the distinction between man and such a machine would lie in the fact that the machine, built by man, like the spear, is active only in so far as man has made it such, thus, even though once it is turned on it may power itself without human interaction, it needed it initially in order to come into existence and subsequently operate, and can thus be considered an extension of man's own creative capacity; it exists because man made it such. Thus, the relationship between man and such a machine would be equivalent to the relationship between man and natural forces posited above; natural forces constitute man and his creativity, a first tier technology, and he further constitutes the machine, a second tier technology. Thus, we could call machines created by machines *third tier technology*, twice removed from the natural forces that, if we are to be reasonable and consistent, are still technically responsible for the genesis of the

machine, for those forces constituted man, who constituted the second tier machine, that constituted the third, and since for the purposes of this framework man's intentionality in this process has been left absent, one can reasonably say that natural forces constituted the third tier machine, for it constituted the chain that generates it; but again, the distinctions drawn within this framework are for the sake of practicality, they are not meant to be inherent or objective distinctions.

The point when the machine of man's creation is able to participate in the creation of technology, the severing and establishment of relationships between objects to such a degree that its creative capacity is not "like that of an intelligent creature" or "imitating an intelligent creature" but "that of a creature that we would term intelligent or greater," it could be called an artificial intelligence. What exactly this would entail cannot be said, for the nature of human intelligence eludes us still, and the degree of autonomy that we possess is also highly questionable. Therefore, for the purposes of this analysis, artificial intelligence will refer to any machine that is so complex that its activity *cannot at all, by any means* be distinguished from that of a *creative animal of the first tier of technology*. This could be a robotic dolphin, or a robotic man, not merely a robot that imitates them, but instead one that is so akin to such a creature that it cannot in any way except for physical composition be defined as falling short of the original. Once again, the preceding is the most tentative part of this entire framework precisely because of the ambiguous notion of "natural intelligence", let alone an artificial counterpart. In order to flesh this out fully, a comprehensive definition of intelligence is required, and no such definition exists.

Once again, the distinctions yielded by this definition seem appropriate, for intentionality cannot be posited as the difference between man and nature, for that assumes a certain sort of liberal subject that need not be assumed. Man may not intend to make things, any number of forces could be driving humanity to create, but all the same, a distinction can be posited, categorically speaking, between what man makes, or ants make, or beavers make, etc., and the man himself, the rock, or the bird. In short, the distinctions drawn out from this definition skirt

the issues of intentionality rather effectively and instead draw distinctions between types of technologies based upon what seems to most evidently distinguish them from each other, not material composition, such as flesh or metal, but the way in which the relations that constitute them came to be established: how far removed those ways are from the natural forces of the first tier. However, if man is a technology himself then all that he creates is merely a continuation of the same chain of creation that birthed him, and thus one cannot truly say that what man builds is "unnatural" or "not the result of natural forces" without accepting a rather stiff dichotomy between man and nature that, given what has been said, need not be accepted. The purpose of the distinctions then, again, as is the purpose of all distinctions and categorization, is for our own sake, a fact to be touched upon in greater detail later on.

In the interest of bolstering the body of evidence for the above claim, that what most evidently distinguishes the various tiers of technology is not what they are made out of or how they function but rather how the relationships that constitute them came to be established. Consider the case of the stalk-eyed fly. The stalk-eyed fly, as its moniker suggests, has its eyes perched on the ends of long stalks, so as to alter its field of vision dramatically. The male stalk-eyed fly, for the female seems not to engage in this activity, intakes air through its mouth and forces that air up into a series of tubes, organic air-ducts if you will, that lead to a chamber connected to the hollow interior of its eyestalks. The fly forces so much air into this chamber that the stalks supporting its eyes begin to extend due to the building pressure, and thus, it can position its eyes much farther away from its own head, and from each other, and therefore can broaden the scope of its own visual perception via the careful employment of an air-pressure system. The fly does not do this each time it takes in air, such as when it breaths; it does it in a way that seems to be specifically in order to extend its own eyes. The purpose of this example should be clear. The body of the male stalk-eyed fly is, in no symbolic or analogous way, but in a literal way, an air-pressure system. The fly, which has existed for millennia, has in it a technology, an air-pressure system, the invention of which man usually attributes to himself

during the industrial revolution, or slightly prior. The only thing that differentiates the fly from our own technology is our categorical understanding of the two, for this fly is rather obviously employing air not just to breathe, but as a source of power for an internal system based on air-pressure and has been doing so for millennia longer than any human machine has done so. Can one reasonably say that this air-pressure system is not a technology and those that we make are? To distinguish them from one another in this way seems artificial, whereas to distinguish between them on the basis of the fly's body being a first tier technology and our own air-pressure systems being second tier technology seems far more appropriate, for if there is going to be any recognized difference between them, this means of categorizing it seems to be the most appropriate in that it does not actually relegate the fly's air-pressure system to an entirely different sphere, but merely to another section of the same sphere, that of technology. They are differentiated based on the forces that constituted them, not on one being metal and one being built of insect exoskeleton. Furthermore, given what has been said, it is worthy of note that the tiers in this framework are not hierarchical, as if second tier technology is always more complex or more ingenious than first tier. All that the numerals indicate are how many degrees removed from "natural forces" a technology is in terms of what constituted it, given this framework.

Let us take this definition a few steps further. Consider capitalism as a machine, a technology. The purpose of this consideration lies in the fact that the nature of capitalism, as opposed to the Nazi war machine or the spear, is not concrete per-se, though it obviously has concrete elements. It was already stated that the objects brought into relation in a technology need not be concrete objects, they can be thoughts or ideas, notions and concepts brought into a relationship with one another that establish an ideology, a system, a worldview, an economy, etc. Capitalism is no exception; it is a way of thinking, a way of conceiving of the world and the relationship between man, labor, and goods. It undoubtedly alters the sphere of intelligibility, for capitalism and the market change the very reality in which man operates, change even the nature of man in relation to that system; he becomes laborer or capitalist. Furthermore, as Marx makes

all too clear within the pages of *Capital Volume I*, the relationship between man and the material

world is drastically altered under capitalism: natural materials are now raw materials, a term

which immediately places them into a certain relationship with the process of capitalist

production. Marx's notion of value, as the abstract human labor embodied in a commodity,

establishes a new relationship between labor and the goods it produces, namely, that those goods

become commodities, imbued with value as such (Marx 128). They were merely things that we

made, and then they became commodities. Man's connection to the fruits of his work is to be

severed as well; he builds not for himself but for the capitalist now. Advances in other concrete

technologies, such as sewing machines and the factory pushed the ideology of capitalism even

further, allowing for it to manifest itself accordingly. Thus, what we have in capitalism is the

establishment of relations between thoughts and other thoughts into a system of thinking, an

ideology, and further an establishment of relations between thoughts and countless concrete

elements that then establish connections back to the ideology and define it. This is a process of

feedback, and to talk of capitalism in this way makes it almost painfully obvious that it is not only

a technology unto itself, but that all ideology is inherently technological given the definition

employed here. After all, since the notion of intentionality and the primacy of the liberal subject

are stripped from this conception of technology, even in terms of what we ourselves have made,

the inclusion of ideologies in the category of second tier technology, and more specifically as

machines, recalling the specific definition being employed, is entirely reasonable. Capitalism,

after all, is certainly not a first order technology; it is not something composed by the forces of

nature ready-made; it is something built, quite literally, of thoughts and objects by man, and as

such it constitutes the sphere of intelligibility in which man finds himself at a given moment, and

thus his reality. In fact, all the various processes of material production throughout human

history, not just the capitalist one, have been technologies in this way, built of certain

relationships between man, concrete objects, and ideas. Marx claims that these processes of

material production are the ideal means of reading history, as a history of processes of

production, not a history of ideas, which he finds to be more or less the effects of given processes of production. This claim on Marx's part, as well as the aforementioned notion of feedback in terms of concrete objects and ideas constituting capitalism, will be of significance to this analysis later on. Once again, the definition posited here is not at all compromised in order to allow for capitalism, or any ideology really, to be recognized as machines properly speaking and therefore as technology.

Within the pages of their incomparable *Anti-Oedipus*, Gilles Deleuze and Felix Guattari conceive of reality as mechanical: a realm of machines connected to other machines. To posit reality as mechanical is not a metaphor; rather, it is a claim that subtly undercuts the perceived dichotomy between man and nature by attributing the essence of reality to neither. Furthermore, without straying too far from the subject matter at hand, to posit reality as mechanical posits it as relational, or rather, as defined by relationships which are constantly established and severed and established elsewhere between machines. One could take Deleuze's notion of what is "machine" to be synonymous, to a large degree, with "technology" as it has been posited here, though his analysis goes far deeper than the current one, which is meant to be, more than anything else, a framework for discussing technology more fluidly, without distinctions that seem overly fallacious, while remaining, admittedly, within a Deleuzian vain. Thus, one should not confuse "machine" as it is defined within this framework, as man-made second tier technology, with "machine" as Deleuze is using it, which is quite distinct and more akin to what this framework means by "technology", though again, in order to avoid reducing Deleuze to the level of the framework being presented here, they are only "similar".

> An organ-machine is plugged into an energy-source-machine: the one produces the flow that the other interrupts…Something is produced: the effects of a machine, not mere metaphors (Deleuze 1-2).

Though there is much more at work within this text than what is to be dealt with here, an employment of Deleuze's conception of reality and the essentially productive nature of machines and the relationships between them is beneficial to the task at hand. For Deleuze, ideology, man

himself, everything is mechanical, relational, produced via cutting and connecting; the severing

of flow and the establishment of new flow and thus the production of reality. Is this not fitting

with the definition of technology posited here? Is not everything truly a machine in the Deleuzian

sense, and thus technological in this framework's sense, in a real sense, not a metaphorical one,

given what has been said? The technological nature of reality, and the production of reality by

ourselves for ourselves, is the construction, or expansion of the sphere of intelligibility with the

ongoing connecting and disconnecting of relations between objects, or as Deleuze calls them,

machines.

The aforementioned is rather telling. The notion of "object" employed earlier has yet to

be fully dealt with, for it is linked inseparably to the notion of "unity" mentioned before and

noted as a topic for later consideration. Each object is a machine for Deleuze and simultaneously

the entire network of those objects is a machine. Thus, since technology as it is defined here and

machine as Deleuze is employing it have been posited as "similar", in terms of defining reality

through relations, breaking and connecting, these "objects" that constitute technologies within

this framework must also be technologies themselves. Each object is a Deleuzian machine, a

technology, for each is already a series of established relationships between yet smaller objects,

yet smaller technologies, down to the atomic level, and perhaps beyond. Can one truly say that

the bird, the stalk-eyed fly, or man himself is a unity without drawing a somewhat arbitrary circle

in the sand around a certain series of relationships and naming everything within the circle "one"?

It seems the case that in order to draw distinctions between different varieties of technology in a

reality that has been defined as a technological one we will quite literally have to *draw them*: that

is, they are not essential, or rather, they are not inherent, objective, or necessary.

Man himself is a technological animal, a technology; a series of relations established and

cut off continuously. Deleuze makes ample use of references to bodily organs and their relations,

the mouth and the teat, in order to further drive home his notion of mechanical reality. If this is

the case, that is, if it is the case that man is a technology in that relations are established by

natural forces, still employing natural forces in the sense that man is a first tier technology, then at what point does first tier technology stop and second tier technology begin? In other words, though the notion of the liberal subject as a being imbued with intention and freedom has been discarded in regards to this definition of technology, has the notion of man as a first-cause been discarded as well? That is, is there still an inappropriate distinction at play between man and nature? Or more accurately, based on what has been said, a distinction between natural-born-technology and technology birthed from creative beings, those beings themselves instances of natural-born-technology? The answer must be in the affirmative if we are to posit man's activity, or that of the dolphin, ape, or other highly creative animal as activity driven entirely from within the creature itself. This question can, however, still be answered with a resounding *no* if it is maintained that the process of creation brought about by man and like animals, the process of technological construction defined by those animals' capacities to sever and establish relations between objects, remains part of the chain or relations originating in nature, or rather, in the forces that generate first tier technology, whatever we may term them. Man is indeed not a first cause here, rather, he and other highly creative animals are points of departure in that they are the potential for the establishment of a wide variety of connections and relations though not necessarily beginning with them as such, occurring through them in a fashion that is, as previously mentioned, distinguishable *to us* from the process which they created themselves. This is the more appropriate grounds for the distinction posited earlier. What, then, is meant by objects or unities within this framework? It can only loosely refer to relations between objects that are somewhat circular, that is, relations between objects that constitute a sort of loop, contained together and yet still capable of relating to other objects while never losing their connection to one another. That is, the human lung would find it very difficult to sever or establish relations between other objects if not for its participation in the technological object termed *human*; object, here understood as a loop of interconnected relations that relate to the world outside of that loop "as if" or "with the appearance of" being a single object.

Consider at this point Gilbert Simondon's notion of individuation. At its most basic, the notion is precisely what its name suggests: to individual-ate, to make individual. This notion falls nicely into place with the current analysis, for it applies to processes such as that which was just mentioned: the production, perceptually, conceptually, or otherwise, of individuals, differentiated objects, singularities, out of the undifferentiated. Given the current framework, is not all recognition of "objects" a case of individuation? It has already been stated that each object that relates to others, and thus constitutes a technology, is many smaller objects, and each of those yet smaller objects; each is a technology, and even to refer to this with terms like *them* and *each* is to individuate at the level of language. Therefore, whenever we recognize objects, unities, even in terms of *ourselves*, we are performing an activity of drawing certain relations out from an undifferentiated background; it is individuation. This, given this framework, is a technological act; a technology that allows for our navigation of the world around us. Without the drawing of such distinctions, without drawing *individuals* out from an ultimately undifferentiated background for practical purposes, we would be positing all of reality as merely the establishment of connections, severing of those connections, establishment of new connections, and the endless repetition of this process without any need for distinction between objects, for they would all be more or less the same, all Deleuzian machines, all technology down to the atomic level, merely configured in various ways. This is not incorrect, for the case seems largely to be just this. However, the very activity of drawing such distinctions is an element of the productive nature of the human technology, it is technological; to delineate things in this way is productive in that certain relations will be cut and others established for the sake of intelligibility. Thus, the very activity of perhaps arbitrarily demarcating certain "objects", though they are themselves many smaller objects, Deleuzian machines or technologies, is an act of production of reality, of our reality as such; it is *creative*.

Finally, in order to demonstrate that frameworks such as this one only serve as a practical means of relating to an ultimately undifferentiated reality, let us imagine, for a moment, that the

framework being posited here is being posited as objective, that it is a statement made not for practicality's sake but a statement made about how things *actually, objectively are*. Frameworks like this are just that, a way of framing a world that we have already posited as actually, if we are going to speak at all of how things *actually are*, undifferentiated. Natural forces compose man, man is a first tier technology, he composes the machine, a second tier technology, that machine composes another machine, a third tier technology. It is at this point that some of the notions touched upon earlier, in relation to Marx and the idea of feedback, can be fully dealt with. Foremost, it was claimed that man constitutes his own intelligible reality via his technological activity; such was the case with the spear example. Furthermore, it was stated that man is a part of that sphere, man himself is an effect of individuation; that is, he cannot stand outside of the reality he produces and be unaffected; he is not exterior to the technological reality being posited here. Thus, when man is brought into a new relationship with himself via technology, a new ontology of the human is the result. Therefore, though the reality produced would seem to be a second tier technology, it has a definite feedback element, that reality turns back on us and constitutes this new ontology of *ourselves*. Reality, a second tier technology*, produces those who produced it*, therefore making us a third tier technology in relation to our own creation. One can already begin to see that when we assume this framework to be absolutely real and take it to logical extremes by virtue of that assumed status, it crumbles; the undifferentiated peeks out each time we try to nail it down, and we are forced to recognize that things are not so cut and dry, that the forces that create us are responsible for what we ourselves create, and in a real sense, we are both among our own creations and the effects, the *products*, of that which we have created. Capitalism, which man birthed, played a key role in the genesis of the liberal subject; it recreated us. To address Marx in a more direct way, his claim that the processes of material production truly constitute history, and that the ideas are the effects of this, only functions when history and the reality of that history are understood as linear. It is obvious, given this analysis, that the processes of production produce certain ideas, which feedback into those processes, create new

ones or simply alter them, which is more or less the same, and then the process continues; it's a feedback loop; the connections between Deleuzian machines do not run in only one way or in only one direction. Therefore, Marx's claims are somewhat shortsighted in terms of the interplay of concrete and non-concrete relationships; one does not *in actuality* have primacy, as if there were two worlds, one physical and one psychical, for this too is merely the drawing of a line.

It becomes a curious case of "so which came first" where even the language of the question is revealing of the fact that individuals are assumed, that individuation has taken place. Which one? This "one" or that "one"? What are we to do in the absence of ones? We must make them, and that is precisely what has been done here. The above analysis does not annihilate this framework; rather, it merely exposes it as what it is. It is a technology for understanding technology; it is a practical tool in the sense in which Michel Foucault referred to his own works as toolboxes for other thinkers on the subject of technology, or what-have-you; its distinctions only go as far as seems most practically applicable, not as far as is *possible*; thus the lack of necessity that has all along been attributed to it. The ideas presented in this framework, as has just been exposed, lead to all variety of new considerations; it is a creation like any other that man has made; it has the potential to recreate man himself in relation to it just as it has the potential to be foolishly posited as absolutely *correct*. The point is to draw these lines for our *own sake*, therefore, other lines may be drawn within this framework, and some can be erased as well; to deny this possibility is to be terribly inconsistent with the views that have been presented here. If our own machines and third tier technologies that result from them have the capacity to redefine the human being, and they *certainly* do as can be very clearly seen in terms of machines such as capitalism, then fourth tier technologies can be addressed, and it would perhaps be addressing man himself, a first tier technology perhaps physically, though conceptually, perhaps a fourth or fifth tier, depending on *at what point one begins to count*. It is a toolbox: one need not use all the tools at once, one can add new ones, and one can also choose to leave it closed.

Therefore, let there be no necessity attached to this framework, for reality is more than likely that which we set out to avoid with our distinctions and categorization, namely *the establishment of connections, the severing of those connections, the establishment of new connections, and the endless repetition of this process without any need for distinction between objects, for they are all more or less the same, all Deleuzian machines, all technology down to the atomic level and beyond, merely configured in various ways.* Despite this, we categorize, we delineate, and we set up our categories as objective realities; we create *a technology of understanding technology; a way of relating that yields intelligibility via individuation*, and since none of our technological creation has necessity attached to it, this one cannot be an exception. It is truly believed that between a machine made by man and an animal, a technology made by nature, there is a distinction, an objective one, something that makes them inherently different, and this seems to be largely fallacious. Instead, we have relations and objects, and objects that are themselves further relations, smaller and smaller, and simultaneously, larger and larger. Every synthesized material and alloy, every marvel of the modern age is just that, a *synthesizing*, not rocks tied to sticks, but atoms "tied" to other atoms; we are merely creating on a different scale, but that act of creating is still merely the establishment and severing of relations between objects, atomic objects, that we find around us. Thus, reality is here posited as, in a Deleuzian vain, technological. Reality itself has been termed a second tier technology, though again, our distinctions in regards to that reality are our own, those very distinctions technologies themselves, this framework and its *tiers* being no exception. Despite this, a series of distinctions has been posited here in an attempt to draw only the most reasonable distinctions, between first and second tier technology and a specific definition of the term "machine", for the purposes of practicality and with the intention of constructing distinctions which, to the greatest degree possible, do not rely on the primacy of the liberal subject or the intentionality of man or of a creator God or the dichotomy between man and nature as such. Thus, a framework, though again, one without objectivity or necessity, has been posited here simply as the most reasonable among many, one

that makes distinctions while simultaneously maintaining a near orbit to the distinction-less technological nature of reality in that it makes as few distinctions as possible, recognizing its own hand in the drawing of those distinctions, without making none at all. It is a technology like any other, like the spear, it is a machine, constructed for our own purposes, while simultaneously recognized as such. It is one framework among many; a framework constructed in a Deleuzian and Foucauldian vain, with the aid of other thinkers, intended both as a means for more fluid discussion of technology and as a toolbox, a collection of notions which will, undoubtedly, birth others; the creative process always continuing. It is merely one way of looking at things, one among many.

Bibliography

Canguilhem, Georges, "Machine and Organism," in *Incorporations*, ed. Jonathan Crary and Sanford Kwinter (New York: Zone Books, 1992), 45-69

DeLanda, Manuel, "Bloodless Transfusion," in *War in the Age of Intelligent Machines* (New York: Zone Books, 1991), 127-178

Deleuze, Gilles, and Félix Guattari. *Anti-Oedipus: Capitalism and Schizophrenia*. New York: Penguin, 2009. Print.

Life. BBC. David Attenborough. Blu-Ray, 2│Entertain, 2010

Marx, Karl. *Capital Volume 1 A Critique of Political Economy*. London: Penguin in association with New Left Review, 1990. Print.

Simondon, Gilbert, "The Genesis of the Individual," in *Incorporations*, ed. Jonathan Crary and Sanford Kwinter (New York: Zone Books, 1992)

NOTE: I intend to continue work on this paper, there is still a lot of material I want to bring in, and I indeed intend to make this, or some version of it, into my senior thesis. I am aware that I have not submitted the forms for the senior thesis because when I picked them up it was already week 9, when they were due. However, I noticed a clause in the thesis forms that allows me to begin a thesis next semester for completion the following semester, though I would not get the full credits but only those for one semester. I want to pursue a senior thesis more for the sake of doing it, because I want to, and for the chance to do so with the aid of Goucher philosophy department, not as much for the 8 credits. So, more than likely I will be turning in the forms next semester and bringing you yet another iteration of this paper.