Wesleyan University א The Honors College

The Electronic Heart

by

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"What do you suppose it means?" he asked. "'DO WHAT YOU WISH.' That must mean I can do anything I feel like. Don't you think so?"

"No," he said in his deep, rumbling voice. "It means that you must do what you really and truly want. And nothing is more difficult."[1]

[1] Michael Ende, The Neverending Story (Garden City, NY: Doubleday & Company, 1983), 213.

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Introduction: Theater & Theory

I am seduced by futurism. I am living in the future. I see gleaming silver cities and cyberpunk arcades, full of sexy hackers and rebel techno-punks sporting neo-primitive body modifications and computerized implants. Skin and circuit make love to one another. I sing the body electronic, floating in an electronic womb. Metallic insects swarm inside my designer brain. It's like being in a movie. Then I wake up. I am a privileged white boy from north America. My dreams are the fantasies of a spoiled rich kid. Technology is not subversive. I am not subversive. Futurism is cold and inhuman. Its beauty is false. Its colors are unrealistic. It forgets about real people.

I despise the rich editors of colorful magazines who talk about high-tech gadgets as if they were valuable in themselves, as if humanity were defined by wireless phones and the internet, as if racism and sexism and war existed in a parallel universe – a kind of virtual reality simulation that we can observe but should not get attached to. I do not despise the dreams. I can't despise the dreams because they are my dreams. Like stained glass windows or painted faces at a carnival, they are hyper-vivid and hyper-intense. Is that so wrong? Are dreams a betrayel of reality?

This two-part thesis project is an attempt to investigate the supposed clash between technology and politics, or more specifically between futurism and humanism. I can't accept that morality requires me to throw out all my romantic visions of technology. Instead, I want to be able to use them in the service of justice. If technology can be a weapon of domination controlled by

corporations and governments, it can also be a tool of funky deconstruction in the hands of skeptical punks.

The first half of this project is a theatrical production in which I tried to push futurism to its limits, contrasting five different futurist visions with the psychological impact these visions have on guy much like myself. A copy of the script and a video recording of the production are included in this thesis. The second half is an essay in which I attempt to delve further into current cultural manifestations of futurism and pull out certain theoretical elements. One of the richest sources of potentially useful futurist material is the music journalism associated with techno music. This is a field which has not gotten much play in the academy as of yet, but it is producing the most advanced and imaginative interpretations of technology anywhere.

Both theater and theory are integral to this project. Readers are invited to think of the play and the essay as a pair of dreams: one dreamt at night, while sleeping, and other during the day, while awake. The play is intended to be an invocation of pure intensity. The essay should more theoretically rigorous. I offer supreme gratitude to my advisor, Hope Weissman. Without her help, this project would still be in its infancy. I also thank my family.

I. Under Attack

The category of the human has come under attack. The borders that separate human from machine, organic from inorganic, and life from nonlife are all being questioned. This leads to fundamental existential and moral problems. Our ethics and our aesthetics are humanist – they locate value in individual human lives. Without a definition of "human," there can be no humanism. Modern technology forces us to question our deepest assumptions about the value and meaning of the human.

The human as a metaphysical category has had a long and messy history. The borders separating the "human" from women, nonwhites, slaves, the insane, animals, gods, and natural phenomena have all been variously contested. Technologies create new problems of this kind. Technologies of abortion make us ask when a fetus becomes human. Technologies of life-support make us ask when someone in a coma stops being human. Technologies of virtuality make us ask how much of our bodies we give up and still be human. Technologies of artificial intelligence make us ask smart machines must be before they become human. Over and over, we have to ask: What do we value in humanity? What aspects of ourselves, if any, do we want to retain in the future? What is it that we do not want to lose or even transform?

This paper examines the influence of technology on human life – culturally, politically, and materially. Theoretical concepts will be appropriated from science fiction, techno music, political activism, and

postmodern theory. It is no coincidence that science fiction imagery like that of the “cyborg” have recently appeared in places as culturally distant from one another as television commercials, feminist theory, and music journalism. We are struggling to find a place for such ideas in our minds, before they begin to appear in our daily lives. Many people fear the questions that technology makes us ask. They hope that technology will never mess with established reality seriously enough to make us question our most fundamental moral beliefs. Other people are intoxicated with the idea of a deeply transformative future, whether they imagine utopian cities of silver and gold, dark dystopian battlefields, or something else entirely.

We need to pay attention to these visions, both positive and negative. It is clear that technology is already affecting reality in ways we are not prepared for, and that it will continue to do so. Many technologies which were once pure science fiction are now on their way to becoming questions of implementation: genetically altered food, animals, and people; shared virtual worlds; ubiquitous microscopic computers; artificial intelligence; artificial life; and other, stranger things. It is crucial that we face these technologies and consider what they may portend. Advanced technology has raised the quality of life for a huge number of people; it has also allowed terrifyingly efficient forms of warfare and domination. We sense that technology is inevitable, desirable, dangerous and exciting all at once – and all of this is apparent in the rhetoric that surrounds it.

In this first section, I will introduce the ways in which technology radically destabilizes our understanding of human life, and I will introduce a few major theoretical concepts. In the next two sections I will develop and

contrast the two very different concepts of assembly and disassembly. In the fourth section I will take the disassembling view to its limits – to the point at which human agency itself is questioned. In sections five and six I will show how disassembly manifests itself in cultural and then material reality. In the final section I will approach a politics of technology that trancends the dichotomy of assembly and disassembly.

Up and Down

The first crucial distinction to be made is between modernist and postmodernist technologies. Modernist technologies build upwards and outwards, towards increased organization and centralization. Postmodern technologies build downwards and inwards, towards decentralization and fragmentation. Modernist technologies operate on the human from above, postmodernist technologies from below: The history of the twentieth century reveals a shift from the modernist to the postmodernist:

> Technology itself has changed. Not for us the giant steamsnorting wonders of the past: The Hoover Dam, the Empire State Building, the nuclear power plant. Eighties tech sticks to the skin, responds to the touch: the personal computer, the Sony Walkman, the portable telephone, the soft contact lens.[2]

"Above" and "below" of course do not mean actually higher or lower; instead they refer to issues of scale. It has been established that the universe recedes to infinity both upwards and downwards, both inwards and outwards. Above the human level there are families, communities, societies, cultures, planets, solar systems, and galaxies. Below the human level, there are organs, cells, organelles, molecules, atoms, particles, and quarks. Every

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[2] Ollivier Dyens, "Cyberpunk, Technoculture, and the Post-Biological Self," in CLCWeb #2.1 (March 2000) <http://www.arts.ualberta.ca/clcwebjournal/clcweb00-1/dyens00.html>.

system is composed of smaller systems and is part of larger ones. Putting systems together is called assembly, and taking them apart is called disassembly.[3]

Assembly and disassembly are everyday operations. For example, I assemble my files alphabetically in order to be able to find the ones I need. Every time I pull one out I am disassembling the system. Eventually my files are all disorganized again and I have to spend time reassembling. The same operations exist in all walks of life, wherever systems are built or dismantled. Nations, corporations, and buildings are assembled systems; wars, strikes, and wrecking machines disassemble them. Technologies of transportation and communication are generally modernist, because they operate on people from above, linking distant communities and pulling together nations. By contrast, the technologies of medical surgery are postmodernist because they operate on people from below, taking apart the human body and then putting it back together again.[4]

Assembly and disassembly are always relative concepts. Operating at the level of the organs (lung, heart, hip) is disassembly relative to the whole human, but assembly relative to the level of cells. Operating on the level of cells is even more disassembled, but it is still assembled relative to the level of molecules. Technology “assembles” or “disassembles” relative to the human

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[3] Philosophers Gilles Deleuze and Félix Guattari use the terms "stratification" and "destratification" to mean almost the same thing. These terms seem to imply natural phenomena. Although I will be interrogating the idea of "agency" in this essay, I do not want to utterly destroy it. "Assembly" and "disassembly" leave open the possibility that these operations can be performed by agents and therefore judged morally.

[4] Psychoanalysis and drugs can also be thought of as postmodernist in that they operate on the human from "below" or "inside." But they are not very precise, and the organs they reveal are less distinct than physical organs.

level. Digitizing the sound of a person's voice, for example, disassembles their words into tiny pieces: five words spoken in one second might for broken down into 20,000 individual "samples." At the same time, the original soundwave generated by the person speaking is actually much more complex, with a much larger number of parts.[5] So there is another sense in which digitizing a sound is actually a form of assembly.

Any operation that disassembles human-level systems also assembles systems below the human level, and vice versa. But in almost all cases, we speak relative to the human level. Digitizing a sample is a "disassembling" operation because the human voice is disassembled, even though analog airwaves are assembled at the same time. Similarly, organizing a group of people is an "assembling" operation because individual people are brought together, even though this simultaneously fragments the larger society.

Humanism is precisely this privileging of the "human level" of operation, not just in how we speak but also in what we value. According to humanism, only the level of the individual human has real importance. All systems which exist on levels above and below the human level are important only insofar as they affect the human level. In other words, the city and the stomach (or the nation and the molecule) have no moral weight of their own. A city is an assembly of humans, and a stomach is a disassembled human part. The "human" is the only ontologically meaningful category in humanism. All other categories are matters of convenience.

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[5] Soundwaves may be infinitely complex, or there may be a limit to their complexity at the quantum level. We do not know whether the universe is analog or digital. It may be impossible to find out because of our inability to measure with perfect accuracy. In any case, 20,000 samples per second is certainly not the limit.

Humanism privileges humans because they possess *agency*. According to humanism, agency deserves respect, and humans (as agents) are born with certain inherent rights and responsibilities. In this context, agency refers to internal self-determination. In other words, an agent has free will; it is neither determined by outside forces nor totally random. It makes its own decisions based on its own structure, and carries out actions of its own volition. Most systems are not perceived as agents: a storm, for example, does not determine its own course or duration. One can describe a storm as random or deterministic, but either way it does not have free will. Another way to look at this is as a question of predictability. Random systems are completely unpredictable and deterministic systems completely predictable. Agents such as humans are *partially predictable:* they seem to act according to certain rules, but these rules can always be disobeyed by an act of free will.[6]

Deconstructing the Human

Both assembling and disassembling technologies pose profound questions about agency. Modernist technologies like radio and television, for examples, have been used to influence and even control large groups of people, as in state propaganda and commercial advertising schemes. This kind of large-scale assembly implies that agency can be located above the human level, at the level of nation or culture. Postmodern technologies, on the other hand, disassemble the human, reducing it to the status of machine.

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[6] Of course, this is also true of a storm. But our culture's understanding of natural phenomena comes from the Enlightenment, at which point it was believed that although we cannot actually predict storms, this is only because we do not have sufficient data and processing power. We still tend to believe, even today, that if we had a big enough computer we could simulate and predict the whole universe like clockwork. Or, alternatively, we believe that storms are unpredictable because at their core they are truly random. We do not tend to believe that storms have agency.

Advanced medical surgery such as hip or heart replacement prove that the body is a machine, while drug therapy and neurochemistry similarly mechanize our conception of the brain.

This essay focuses only briefly on the assembling technologies of modernism. Although these technologies do raise serious questions about human agency, they are limited by the material barrier of the human body. Even the most radical fascism does not actually fuse people into a physically unified blob. Social machines assemble individuals into groups, but even the most unified and homogenous nation is still an assembly of physically independent individuals.[7]

The disassembling technologies of postmodernism have greater potential to fundamentally question the human unit because they can take apart the human body. Of course, since "disassembly" is a relative term, it can refer merely to the dismantlement of social structures – indeed, the history of postmodernism centers on the deconstruction of structures such as authorship and authenticity in fields like literature and music. However, disassembly has the potential to take the process much further, to the deconstruction of agency itself. This is a much stronger form of postmodernism, and one with grave implications for any ethics based on the rights and responsibilities of agents.

There are two general ways in which the idea of agency comes under attack because of disassembling (postmodern) technology. The first is that our

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[7] Fascism uses the media to disassemble human minds in preparation for large-scale reassembly. Language, which enters the human brain through the ears and rearranges ideas on a sub-human level, is in this sense disassembling. Some science fiction stories imagine a future in which humans actually meld physically into a single giant organism, but highly advanced postmodern technology would be required to take apart the human body in preparation for such a fusion.

tools become so complex that they stop being totally predictable and comprehensible. When this happens, we have to attribute some form of agency to them. The second is that technology reveals several ways in which humans themselves are in fact predictable and comprehensible. When this happens, we have to stop attributing so much agency to humans. In both cases, agency becomes a continuum, and the line separating human from tool is blurred if not altogether erased.

Tools such as the hammer are understood to be completely mechanical. There is no element of *choice* between the handle and the head of a hammer. When a person swings the handle, the head follows along according to the laws of physics. If a hammer has a "purpose" it is because human agents impose one on it. The "use vector" of a hammer, which dictates how it is to be used, is a culturally assembled structure.[8] When a hammer can no longer function according to its use vector, we call it "broken." This is a mechanical failure, not a choice.

Even complex tools like the steam train are generally thought of as mechanical assemblies which function according to externally imposed use vectors. A human is necessary to run the train, because a tool has no purpose except in the hands of an agent. The passengers cannot predict or comprehend a steam train the way an engineer can, but they know that theoretically the train is a deterministic system. Ironically, a mechanic or engineer who gets down and dirty with the internal structure of a complex

[8] A "vector" in this context is a line of mechanical determination. Just as an apple will fall from a tree in a straight line according to gravity, a tool fulfills its function by following a deterministic path. This path can be long and complicated (as in a Rube Goldberg device), but it must be deterministic. Thus a "vector" of determinism connects the input (a human pushes a button) to the output (a garage door opens).

machine like a car or a train is actually more likely to begin attributing agency to it. A good mechanic, for example, knows that a car is not in fact wholly comprehensible or predictable. Sometimes a car will “refuse” to start up without any obvious mechanical reason. One could simply say here that the mechanical failure has not yet been detected, but one could also say that the car “does not want to start,” in which case mechanical failure is replaced by agency: the car is now *choosing* not to follow its assigned use vector.

Agency appears as a certain kind of break in the use vector of a tool. This break is moment of choice, an instant of free will, a point at which the tool may go different ways according to its own inclination. In the example of the car above, however, the appearance of this kind of break can be explained as a lack of knowledge on the part of the mechanic. Because the mechanic does not know where the mechanical failure is located, it *seems* as if the car is choosing not to start. Everyone knows that cars do not make choices. If a car does not start, it is because the use vector has been interrupted not by a moment of choice but by a mechanical failure. Perhaps the battery is dead. Once the mechanical failure is located, it becomes obvious that the car had no choice in the matter.

As our tools become more and more complex, they begin to have multiple use vectors. A car, for example, has many use vectors. The headlights, the defroster, the different gears, the gas pedal, the brake pedal, and the turn signals are all separate tools with separate inputs, and they operate independently of one another.

As long as the components operate independently of one another, the use vectors remain obviously mechanical. This is the case with all electric

machines. The word “electric” as opposed to “electronic” implies that the machines can still be understood as mechanical systems. Electricity is a deterministic physical force just like gravity, so a lightbulb can be understood mechanically just like a lever or a spring. *Electronic* machines are completely different. The changes that take place in electronic machines are “invisible changes, embodied in software.”[9] The mechanics of these tiny changes are uninteresting to the average user, who is only interested in the meaning that has been mapped onto them.[10]

The calculator, unlike the car, does not “do” anything; it “says” things. Its results are not obviously mechanical. Only electrical engineers can explain the workings of a calculator in terms of electric circuits. Even the boolean logic of basic programming is one level higher than the purely mechanical. According to most people, calculators produce correct answers by “knowing” things. In other words, the vector that connects input to output includes a break: if not a moment of “choice” then at least a moment of “figuring out.” This is much more apparent with computers. The mechanical vectors that make up a personal computer are so complex that they cannot be mechanically comprehended. Even programmers talk about computers using the vocabulary of agency: the computer cannot “find” the printer, or it does not “know” how to read a certain document, or it “thinks” you are trying to perform an illegal operation.

There is no one in the world who can understand the behavior of a word-processing program in terms of electricity. Thus “steam technology was

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[9] Mark Dery, Escape Velocity (New York: Grove Press, 1996), 64.
[10] For more on meaning as mapping, see Douglas R. Hofstadter, Gödel, Escher, Bach.

the last technology we had our hands on. Now, if a chip melts in your computer, the show is over."[11] The mechanical aspect of the computer has become completely invisible, buried under many layers of higher-level meaning. With electronics, "machines have been replaced by systems."[12] Electronic circuits are no longer understood as mechanical machines of current moving along the paths of least resistance. Instead, they are understood as conceptual systems manipulating not electrons but ideas: 0, 1, OR, XOR, NOT, and AND. More complex programs manipulate higher-level cultural data such as text, sound, and video.[13]

Computers are located conceptually right at the border between tool and agent. On the one hand, we continue to believe that computers do rely on purely mechanical processes – that they really are just tools. On the other hand, those processes are so complex that we cannot help treating computers as at least partial agents. So we subscribe to a kind of double-think in which the computer is a mechanical agent. We treat it is an agent during the day because that is the only way we can get our work done, and at night we rest easy in the knowledge that deep down the computer is just a machine.

Sherry Turkel, in her interviews with female programmers, has "found that many women are drawn towards a style of programming that is best characterized as ... a relational encounter." But at the same time, "Many

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[11] Mark Dery, Flame Wars (Durham, NC: Duke University Press, 1994), 206.

[12] Claudia Springer, "The Pleasure of the Interface," in Patrick D. Hopkins, ed., Sex/Machine (Bloomington: Indiana University Press, c1998), 486. In this context, "systems" implies a level of interpretation above the mechanical. I use the word "system" to designate any structured unit, including both tools and agents.

[13] In principle, one can speak of any mechanical system this way. One can say that pushing down one end of a lever is a form of "input" and the movement of the other end is a corresponding "output." In other words, setting up a lever counts as "programming" a data-processing machine. But there is no reason to talk about a machine this way until the vectors of its operation become too complex to understand mechanically.

women fight against something that needs to be distinguished from programming style. They fight against the computer as psychologically gripping. They experience anthropomorphization as seductive and dangerous." In order to protect themselves from this danger, they "develop an attitude towards the computer that insists it is 'just a tool.'"[14] Computers are scary because they are too complex to be tools and too simple to be agencies. Their complexity tricks us into treating them like people, at which point we begin to distrust them the way we distrust people who are seem too coldly logical or too willing to follow orders.

If it is scary to watch our tools develop agency, then it is absolutely terrifying to watch human beings reduced to the level of mechanics. This is what happens when we begin to consider the "augmentation" of human beings. To "augment" implies a use vector already in place. When a hammer is augmented to hit harder, or a train to run faster, the augmentation is based on the tool's use vector. An agent cannot be augmented because it has no use vector.[15] The standard way of getting around this problem is to say that the body is a tool (or an assemblage of tools) and the mind is an agent. The body can therefore be augmented to better serve the mind. The eyes, for example, are tools for seeing, and they can be augmented to see better.

This mind/body model does not hold up in a world of advanced disassembling technology, however, for several reasons. First of all, the body and the mind cannot be so easily distinguished. This has always been true,

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[14] Sherry Turkle, "Computational Reticence," in Hopkins, 372.

[15] One could say alternately that an agent has infinite use vectors. In either case, nothing can be done to an agent to "improve" it, because there is no scale along which the agent can be judged. Without a vector defining what a system is supposed to do, there is no standard according to which it can succeed or fail.

but it becomes even more apparent when there is technology available that can fundamentally alter the body. It simply does not work to see the body as a collection of tools used by an entirely independent mind. Consider the example of cochlear implants in deaf children. Many deaf parents do not want to give their children implants which would allow them to hear, because hearing would take them out of deaf culture. These parents are unwilling to treat the ear as a tool with a use vector. According to them, a body that cannot hear is not "broken," it is simply different, and it allows access into an equally valuable realm of experience which is closed to those who hear.[16] In other words, a deaf person does not possess an independent "normal" mind attached to a body that just happens to be deaf. More generally, the body is not a tool used by the mind; it part of the very nature of a person, and therefore part of the agent.

Even if the body were really separate from the mind, one still could not simply draw a line around the brain and say that agency is located inside, because the brain has increasingly been shown to operate as an assembly of organs with defined functions – in other words, tools.[17] As we begin to understand the brain mechanically, it becomes impossible to locate agency in any single part of it. It is no longer plausible to locate the soul in the pineal gland, as Descartes did. In fact, it is now clear that no single section of the brain is responsible for agency. However, we also cannot say that the mind is entirely separate from the brain. Consider drugs like Prozac, which are meant

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[16] The same argument was an important part of the Black Power movement, which proclaimed that "black is beautiful." A racist view of the body sees the skin as a tool for being white, such that nonwhite skin is broken or wrong. The goal of movements against racism is to disassemble this use vector.

[17] For more on this, see Marvin Minsky, The Society of Mind.

to “augment” the emotional stability of the mind by affecting the brain mechanically (chemically). A common attitude toward anti-depressive drugs is that they fix something in the brain which is broken. In other words, the “mood-regulating” tool is broken, and must be fixed in order to free the “real” person waiting inside. Many people also believe that intelligence can be augmented without affecting the “real” person. In other words, the real person (the agent) is not located in the emotions or in the intelligence of the human being. If this logic continues, agency will eventually be left with nothing to attach itself to. It turns out that there is no part of the human being, body or mind, which cannot be drastically altered by technology. Intelligence, mood, sexual appetite, hunger, energy, and even personality can all be affected by drugs. There is no independent agent in the brain which operates independently of external forces. The brain, like the body, is therefore a complex system with no single governing agency.

Once again, the binary of agent and tool breaks down as a result of disassembling technologies. The distinction between agent and tool is based on viewing systems as essentialized, whole units, systems without parts: a hammer made completely of hammer-ness, a human made completely of human-ness. As soon as technology allows us to investigate the parts that make up these systems, we can no longer make such a clear distinction between agents and tools. Both the human and the hammer become what I call a “tech.” A tech is a third way of looking at any given system, somewhere between agent and tool. A tech, as in the example of the computer above, is a *mechanical agent*. Instead of agents and tools, we have more and less complex techs – the difference is only a matter of degree. Thus: a nation is a tech

composed of many smaller techs called humans, which in turn are composed of smaller techs called organs. All boundaries are fluid and interactive, and in any given interaction it is impossible to separate agent from tool or user from used.

If humans are techs, there is no need to search for the agent inside a person. Agency is a kind of complex internal structure possessed by certain systems, including human beings. However, this metaphysically simple solution raises some very tricky moral questions, since the fundamental principle of humanism is that agents may not be used as tools. This principle is what freed the slaves and gave women the vote. More recently, the same question has been applied to animals, plants, fetuses, comatose people, and machines. If all systems are techs, then what makes it acceptable to use some of them as tools and not others? If agency is a matter of degree, then where do we draw the line? In order to address these questions of morality, we have to look more closely at the nature of assembly and disassembly.

The Birth of Futurism

The word "futurism" comes from a group of Italian men (and later women) led by the enigmatic writer and activist F. T. Marinetti. In 1909, Marinetti published a "Futurist Manifesto" in which he declared open war on the values of traditional society.[18] He and his fellow Futurists wanted to "deliver Italy from its gangrene of professors, archaeologists, tourist guides and antiquaries," to "demolish museums and libraries," and to "fight morality." In other words, they set themselves up as enemies of all the

[18] F. T. Marinetti, "The Founding and Manifesto of Futurism," in The Niuean Pop Culture Archive <http://www.unknown.nu/futurism/>.

established institutions of humanism. Their hearts, they claimed, were "nourished by fire, hatred and speed!"

Ironically, the Futurists' desire to destroy the reigning cultural traditions of Italy soon brought them into alignment with Mussolini's fascism. By examining the Futurists, we can see how assembly and disassembly are really two sides of the same coin – they are two perspectives on *transformation.* The disassembly of the Futurists was proud. Although it questioned almost all the established structures of Italian culture, it did not question itself. There was a limit to the disassembly. Indeed, fascism always uses disassembly in the service of assembly. While fighting the established order, fascists prepare themselves to take over and create a new order, which will be at least as centralized as the previous one.

The Italian Futurists worshipped technology. The manifesto declares:

> We will sing of the great crowds agitated by work, pleasure and revolt; the multi-colored and polyphonic surf of revolutions in modern capitals: the nocturnal vibration of the arsenals and the workshops beneath their violent electric moons: the gluttonous railway stations devouring smoking serpents; factories suspended from the clouds by the thread of their smoke; bridges with the leap of gymnasts flung across the diabolic cutlery of sunny rivers: adventurous steamers sniffing the horizon; great-breasted locomotives, puffing on the rails like enormous steel horses with long tubes for bridle, and the gliding flight of aeroplanes whose propeller sounds like the flapping of a flag and the applause of enthusiastic crowds.

This vision mixes modern and postmodern understandings of technology. On the one hand, there are the great uniform crowds of fascism, and the gleaming cities and grand bridges of high modernism. On the other, there is the constant pressure of revolt and war that threatens to break apart rather than support social structures. The Futurists claimed to loathe

authorian power and they reveled in the urge to destroy, but politically they were fascists. They dreamed of pure destruction, but they were chauvinists with their own rigid and reactionary politics. These kinds of paradox do not always have to lead to fascism. In fact, anyone trying to disassemble anything must face this question: how is it possible to disassemble without simultaneously assembling?[19]

As shown in the previous chapter, going "all the way" with disassembly requires disassembling one's own agency. The pride of the Italian Futurists did not allow them to do this, but their writing does open the doorway to such radical disassembly. For example, Marinetti writes:

> We have been up all night, my friends and I, beneath mosque lamps whose brass cupolas are bright as our souls, because like them they were illuminated by the internal glow of electric hearts.

This passage equates lamps and souls as two kinds of "electric heart." Here, Marinetti seems to be following in the path of the eighteenth-century Galvanists, who believed that electricity was the force of life. Rather than question human life, the Italian Futurists spoke of machines as living beings, as in the trains above, which are likened to serpents and horses. But today we no longer believe that electricity is the force of life; instead we see it as a force of physics, just like gravity. Thus electric machines do not scare us, because they do not encroach on our agency. Now it is electronic machines that we fear, not because they might be alive but because they threaten to prove that we humans are not alive – or rather, that there is no distinction between life and nonlife. The Italian Futurists aligned themselves with machines because

[19] Fascism is only the most intense incarnation of this paradox: extreme disassembly (widespread physical violence) used in the service of extreme assembly (nationalist or racist social uniformity).

they saw machines as representations of power. They did not realize that to call oneself a machine also opens the door to supreme powerlessness. Today our greatest fear is precisely that the human heart (or soul, or agent) is an electronic device – mechanical and without the power of self-dermination.

In the Italian Futurists, we can see the beginning of two trends that have come to characterize the current debates of cyberculture. On the one hand, there is “olympian” futurism, which sees in technology the potential to assemble all of humanity together under a single system. On the other, there is “insectile” futurism, which views technology as inherently disassembling. The assembling vision has given us fascism, totalitarianism, and mega-corporate capitalism but also the movements for universal human rights and global equality. We are only beginning to tap into the power of the disassembling vision, which can bring fragmentation and anarchy but also flexibility and radical change. The difference will depend on who controls the technology.

II. The Olympian Outlook

The idea that technology is an assembling force has a long history with no clear beginning point. It could be argued that spoken language was the first assembling technology, one that allowed human communities to grow larger than those of any other species. It could also be argued that the vision of technology as assembling only truly begins with the Enlightenment dream of understanding nature as a giant clockwork machine. In any case, this view of technology was firmly in place during the modernist era at the beginning

of the twentieth century. This era was full of what I call “olympian” futurism. “Olympian” refers to a top-down worldview in which humans, through their technology, preside like gods over a hierarchical, centralized, well-oiled social machine. This kind of vision can be utopian, as in golden cities and vast, glorious empires, or it can be dystopian, as in societies dominated by a class of authoritarian rulers. In either case, technology is seen as an assembling force.

The centerpiece of the utopian version of modernist futurism is the gleaming modern city, full of skyscrapers and spanning rivers with its majestic steel bridges. This “glorious” vision can be traced through the whole twentieth century as it appears in various cultural arenas. Its general trajectories clear in the history of science fiction, where visions of highly-assembled utopias reached their zenith in the 1950s. This was the so-called “Golden Age” of science fiction. In 1951, Isaac Asimov wrote Foundation, which is set against the backdrop of a hugely centralized Galactic Empire that has lasted many thousands of years and is just beginning to decline. In 1953, Arthur C. Clarke wrote Childhood’s End, in which aliens use advanced technology to take control of earth and solve all of humanity’s internal conflicts. The most perfectly assembled vision of the future is depicted in Asimov’s 1956 story, “The Last Question,” in which a vast computer continues to grow in size by enveloping living beings. At the end of the story, all life is contained within this one computer, which then declares: “Let there be light!” In this most perfect dream of assembly, everything is brought together to be reborn as God.

These utopian dreams were challenged by the dystopian nightmares of those who feared a too-assembled future. Fritz Lang's 1926 film Metropolis and George Orwell's 1949 novel 1984 are the most famous of these. Lang and Orwell questioned the notion that assembly leads to harmony, and in that sense they foreshadowed the shift towards disassembling futurism that was to come. But they themselves did not see technology itself as potentially disassembling or subversive. Instead, they showed subversive humans attempting to disassemble the rigid, controlling structures of technology. In this sense, the dystopian works of Lang and Orwell were not really futurist. If they identified any source of salvation, it was not technology or the future but rather traditional humanist values.[20]

An Unbearable Lightness

The city is a powerful symbol of assembling futurism, but there are others. Many of these have long histories that precede modern technology by thousands of years. Some of them have been abandoned in our time. For example, political candidates no longer speak of gleaming skyscrapers and huge bridges when they want to attract votes. The idea of conquering gravity with taller and taller buildings, which has been around since the Tower of Babel, is now somewhat out of fashion. But at the same time, NASA space programs continue to inspire awe. It is simply a question of which symbols have been discredited. In the context of politics, words like "order" and "unity" have acquired the negative associations of nationalism, but many

[20] This distinguishes modernist technological dystopias from the cyberpunk dystopias that came later. The dystopias of Lang and Orwell were genuinely dystopian -- futures to be avoided at all costs. Cyberpunk dystopias are not only unavoidable, they are also imbued with a sense of excitement.

political candidates still proudly use them. The dream of assembly is not gone; it simply appears in different contexts and locations in our age.

Virtual reality is a fantasy of supreme assembly. Virtual worlds are simpler and more controlled than the real world can ever be. Because they are designed and run by computers, they are necessarily perfectly centralized. A materialist view of the real world says that no god keeps track of where everything is – matter just takes care of itself – but in a virtual world there is indeed a central processor that keeps track of everything. This centralization, which so excited Asimov and Clarke, is precisely what terrified Lang and Orwell. In a virtual world, laws can be far more powerfully enforced, and it is difficult or impossible to hide from the authorities. Order exists in virtual worlds as it can never exist in messy physical reality.[21] Whether this is a good thing or a bad thing depends on who you ask, or more accurately on who controls the system.

Erik Davis, in his book TechGnosis, has traced the association of technology with “transcendence” from ancient times to the present. The dream of order and the dream of transcendence are closely linked: both ideas turn on the principle of simplicity. A good example is the virtual body, which is pure, simple, and hollow. It is perfectly assembled and cannot malfunction – there can be no physical “complications” such as sickness or injury unless these are programmed into the system. The virtual body is completely knowable and therefore completely controllable.[22] Also, the virtual body

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[21] For example, it is impossible to misplace a computer file the way one can lose a set of keys, because a computer can "search" its contents very quickly.

[22] This is true whether it is constructed out of words (as in text-based VR) or out of textured polygons (as in graphical VR). In either case, the "organs" are simple and completely knowable.

exists on a different plane of reality than the mind that controls it. In this way, virtuality resembles the body-as-tool idea described in the previous section. The virtual body can be altered arbitrarily without affecting the mind, which hovers invulnerably outside the virtual world and is completely independent of the virtual body. The ancient dream of gnosis has been achieved.

There has been a lot of criticism recently about the disembodiment allowed or created by technology. Disembodiment has been associated with the workplace since industrialization, from the factory production line to the office cubicle. In the factory assembly line, human bodies are broken down into their components and reassembled as parts of a larger machine. The individual worker is a tool without agency. Agency is located somewhere above, in the corporate bureaucracy where decisions are made. Disembodiment is the separation of the body from the mind, in other words of agency from the material world. It is assembling because it attempts to simplify and control the physical world according to a mental scheme. Disembodiment is an attempt to escape everything messy.

Recently, disembodiment has come home to our physical bodies in the form of anorexia, which is essentially an attempt to control one's body the way a programmer controls a virtual one – as if our real bodies were so simple, so knowable, and so controllable. The virtual body – indeed, the virtual world – is truly plastic. The famous potential for gender swapping is just the beginning. Sherry Turkle quotes a woman who is anorexic in real life describing her experience in text-based virtual worlds called MUDs:

> I like making my body disappear. In real life that is. On MUDs, too. On the MUD, I'm sort of a woman, but I'm not someone you would want to see sexually. My MUD description is a combination of

> smoke and angles. I like that phrase 'sort of a woman.' I guess that's what I want to be in real life too.[23]

The same issues have interesting parallels in electronic music. Music journalist Kodwo Eshun makes this explicit: "Traditionally, the music of the future is always beatless. To be futuristic is to jettison rhythm.... The music of the future is weightless, transcendent, and neatly converging with online disembodiment."[24] Even music with a beat can be strongly assembling if the beat is regular and stable. Trance techno is "the form of techno that's most thoroughly in thrall to the sequencer's precision-locked logic; tracks are grids rather than grooves.... Trance resembles an orchestra of metronomes, all of which are subordinate to the timekeeping of that tyrannical conductor the kick drum. This predictability is what allows the mind to disengage and 'trance out.'"[25]

Assembling Power

In some contexts, disembodiment has been criticized as a masculine dream of control – anorexia being a form of control that the male beauty industry exercises over women. In criticizing male utopias, Rosi Braidotti writes that "men need to get embodied, to get real, to suffer through the pain of re-embodiment,"[26] and Vivian Sobchack suggests that Baudrillard could use a little pain to bring him "back to his senses."[27]

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[23] Sherry Turkle, "Tinysex and Gender Trouble," in Hopkins, 400. "MUD" is "Multi-User Dungeon" or similar.
[24] Kodwo Eshun, More Brilliant Than The Sun (London: Quartet Books, 1998), 067.
[25] Simon Reynolds, Generation Ecstasy (Boston: Little, Brown, c1998), 203.
[26] Rosi Braidotti, "Cyberfeminism with a Difference." Universiteit Utrecht <http://www.let.ruu.nl/womens_studies/rosi/cyberfem.htm>.
[27] Quoted in Dery, Escape Velocity, 311.

In other contexts, disembodiment is linked to whiteness and a "Western" or European sensibility. The dream of transcendence has been called "a specifically European disease."[28] In the field of electronic music, the musician Brian Eno complains that both classical music and much computer-generated suffer from a lack of "Africa."[29] This statement includes an important element of truth, insofar as certain kinds of rhythm were basically unknown to Europeans until they encountered Africans. But it also obscures another important truth, which is that the dichotomy between white music and black music has not been clear since at least the Jazz Age.

Many people trace the original of techno music to the German group Kraftwerk, who "epitomize the white soul of the synthesizer, the ultra whiteness of an automatic, sequenced future."[30] It has been said of Kraftwerk that "they were so stiff, they were funky," and this has been translated as "they were so white, they were black."[31] Another event in the prehistory of techno took place in Munich, when Giorgio Moroder "used a drum machine to simplify funk rhythms in order to make them easier for whites to dance to."[32] However, the other people credited most often with inventing techno are the Belleville Three, a trio of black teenagers from Detroit, and their companions. Their music was just as regular as Kraftwerk's, so much so that people who listened to it often assumed they were "white guys from Europe."[33]

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[28] Deleuze and Guattari, 18.
[29] Reynolds, Generation Ecstasy, 48.
[30] Eshun, More Brilliant, 100.
[31] Reynolds, Generation Ecstasy, 014.
[32] Ibid., 024.
[33] Ibid., 019.

What is being discussed, then, is not necessarily how actual white or black people act, but what the two cultures have come to symbolize historically. White stands for regular beats, disembodiment, and transcendence, and black stands for funky beats and a stronger connection to the body and to material world. This opposition, while sometimes useful, is socially constructed and cannot be taken out of context as if it did not have a long history stretching back to Orientalism and slavery. Europe has associated itself with ideas of assembly for quite a while; it may be that the European love of assembly is what allowed it to colonize the world, or it may be that Europe became more and more enamored with assembly as it colonized the world. In any case, Europe is now associated with assembly and all of its facets, including regularity, centralization, and order. At the same time, Africa or "blackness" has been associated with disassembly, and therefore also with irregularity, decentralization, and anarchy. There is a lot of debate about whether these conceptual linkages are good or bad for black people.

Some theorists use the terms "state" and "nomad" to avoid such connections of race and gender.[34] Other theorists create symbols that attempt to represent these historical relations without necessarily reproducing them. For example, many feminists refer to the "state" power as "phallic," where the "phallus" represents historically but not inherently male power. Other

[34] Deleuze and Guattari, 351-423.

theorists speak of “white magic” and “black magic” when talking about cultural phenomena which are historically but not inherently linked to race.[35]

The Dream of Purity

It is not surprising that maleness and whiteness should both be associated with the established order. Nor are maleness and whiteness the only symbols of hegemony. At the most general level, there are groups in power and groups without power, and those in power have claimed for themselves the symbols of assembly, including lightness, transcendence, harmony, organization, simplicity, and purity. This is as true in cyberculture as it is anywhere else. Donna Haraway, in her famous “Cyborg Manifesto,” writes that “Our best machines are made out of sunshine; they are all light and clean because they are nothing but signals, electromagnetic waves....”[36] Despite her feminist perspective, she has been taken in by the dream of “light and clean” technology. Here she is only claiming the symbols of assembly for women, rather than questioning assembly itself.

From the perspective of its owner, a computer does tend to simplify, to make things more efficient and better organized. Similarly, those who own skyscrapers and those who run cities see these structures as light and clean because they can afford to ignore urban poverty and industrial pollution. There is a vast gap “between the high-investment glitz and the heady cultural capital of the digerati at the top of the cyberspace chain and the electronic

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[35] Stephen Pfohl, "Theses on the Cyberotics of HIStory: Venus in Microsoft, remix,” in Joan Broadhurst Dixon and Eric Cassidy, eds., Virtual Futures (London; New York: Routledge, 1998), 12; Mark Fisher, “Writing Machines,” in Word Bombs <http://www.altx.com/wordbombs/fisher.html>.
[36] Donna Haraway, Simians, Cyborgs and Women: The Reinvention of Nature (New York: Routledge, 1991), 153.

sweatshops at the bottom."[37] In reality, the computer industry is incredibly dirty. "Semiconductor manufacturing uses more highly toxic gases than any other industry, its plants discharge tons of toxic pollutants into the air, and use millions of gallons of water each day; there are more groundwater contamination sites in Silicon Valley than anywhere else in the U.S."[38]

Our machines are not made out of sunshine. Those who subscribe to the "ideology of the clean machine"[39] are supporting a distinct class perspective. Technology is not light and clean, it merely has the power to separate the clean from the dirty so that those who own it can dwell in a world of cleanliness. This "clean" world – usually upper-class, white, male, or all three – is the world of perfect assembly: the "perfectly-assembled" world.

The "information state" is a dangerous fantasy, and one which is by no means dead and gone, although it is no longer fashionable in science fiction and philosophy.[40] In 1996, the influential artificial intelligence theorist Hans Moravec proudly took an "Olympian" position that closely resembled social Darwinism:

> It doesn't matter what people do because they're going to be left behind, like the second stage of a rocket. Unhappy lives, horrible deaths, and failed projects have been part of the history of life on Earth ever since there was life; what really matters in the long run is what's left over. Does it really matter to you today that the tyrannosaur line of that species failed?[41]

Moravec goes on to allow the equation of people "on the lowermost rungs of the socioeconomic ladder" with dinosaurs doomed to extinction. But

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[37] Andrew Ross, "Going at Different Speeds," in Josephine Bosma et al., Readme! (Brooklyn, NY: Autonomedia, 1999), 172.
[38] Ibid., 175.
[39] Ibid., 176.
[40] Broadhurst and Cassidy, 5.
[41] Dery, Escape Velocity, 307.

not all olympian futurists are so cruel. A certain group of futurists called the "posthumanists" think of their movement as "an extension of humanism" in that it values "individuals, rational thinking, freedom, tolerance and democracy."[42] But of course, if transhumanism is an extension of humanism, then it cannot tell us anything about the challenges which technology poses to humanistic thought. By retaining traditional humanism in its entirety, the posthumanists take on an inherently conservative outlook. They lie when they claim that they are interested in fundamentally altering "the human condition." They want to change the material situation of humanity, but to avoid the questioning of human agency that drastic material changes demand. In pledging to "extend" the "mental and physical capacities" of humans, the posthumanists unwittingly reduce the human being to the status of tool. "Extend," like "augment," implies a use vector. But who will decide what counts as the "extension" of human capacities? The posthumanists claim that "the human species does not represent the end of our evolution, but, rather, its beginning." But who is "we" in this sentence, since it is not the human species? According to what values will humanity be reshaped?

The "post" in "posthumanism" implies a hidden evolutionism, in which humanity will be transformed according to some transcendent agenda. One might ask if their "light and clean" rhetoric does not already reveal that this transcendent agenda will be almost exclusively white and male. In preserving humanism, will they not also be preserving all the various symbols of assembly and trying to rid the world of their opposites? In their

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[42] Nick Bostrom et al., The Transhumanist FAQ (May, 1999) <http://www.transhumanist.org/>.

quest for order, rationality, transcendence, and cleanliness, it seems likely that a lot of things – and a lot of people – will have to be left behind.

III. The Insectile Outlook

> MARK DERY: Can one be situated in the African-American musical tradition and still speak the aesthetic language of the technotronic society? In other words, can one be funky and mechanical?
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> TRICIA ROSE: No question; that's what hip-hop is! The real question is: How do we define what being 'mechanical' means? If we take a kind of Frankfurt School / fascist / industrial regimentation / lack of creativity as our model for the machine, then of course funky cyborgs would seem like an utter contradiction; but if we understand the machine as a product of human creativity whose parameters are always suggesting what's beyond them, then we can read hip-hop as the response of urban people of color to the postindustrial landscape.[43]

In the second half of the century, a different view of technology came into vogue – one that is disassembling and postmodern. I call this "insectile" futurism because it takes a bottom-up worldview in which humans have no more inherent value than rocks or cities. The insectile world is not hierarchical or centralized, but complex and distributed.[44] Like olympian futurism, insectile futurism can be either utopian – as in the goal of radical democracy and the total distribution of resources – or dystopian – as in anarchism and meaningless chaos. In either case, technology is seen as an inherently disassembling force.

A love of disassembly is at the center of postmodernism. Literary deconstruction, moral relativism, and fear of globalization are all examples of

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[43] Mark Dery, Flame Wars, 213.

[44] "Insectile" as a concept goes further towards pure disassembly than actual insect colonies, which may be centralized around a queen bee and organized according to a caste system.

this trend. God is dead; the author is dead; universal morality is dead; even absolute truth is dead. Postmodern theorists Gilles Deleuze and Félix Guattari have created a whole philosophy that is dedicated to disassembly "arboreal" thought (which is centralized, hierarchical, and essentialist) and replacing it with "rhizomatics" (which is decentralized, distributed, and materialist). Science is also headed into disassembly, with nonlinear dynamics and the study of complex "chaotic" systems. Classical artificial intelligence worked from a top-down model, but more recent "Alternative AI" or "Artificial Life" works bottom-up.[45] The same trends exist in the realm of technology. For example, many people believe that the internet is an inherently democratizing technology.

Those in power have armed themselves with the symbols of humanism. The disempowered have two possible forms of action: to claim those symbols for themselves, or to reject them outright. The first method is integral to movements like civil rights, feminism, or queer activism, which fight for the equality of a certain identity group. Such movements try to win the symbols of assembly for themselves, claiming that their people (blacks, women, queers) are no less ordered, rational, transcendent, or clean than the other guys.

Since the '80s there has also been an opposing trend, in which the dispossessed explicitly reject the symbols of assembly as artifacts of an obsolete humanism from the Enlightenment era. Insectile futurists purposefully claim to be the opposite of everything olympian futurists value. They revel in disorder, irrationality, embodiment, and dirtiness. Of course,

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[45] Phoebe Sengers, "Fabricated Subjects," in Bosma et al., 53-4.

this can be taken to various degrees. At its weakest, insectile futurism simply takes on the symbols of disassembly without actually disassembling anything. (Television ads are famous for appropriating "subversiveness" in order to sell it back to viewers as a commodity.) At more intense levels, insectile futurism begins to genuinely reject the structures of mainstream society.

Some insectile futurisms go even further. At its most intense, insectile futurism disassembles the concept of agency and rejects the most basic humanist premise, that human life is inherently valuable. As one techno producer said: "The best thing about hardcore is all the soul's been taken out. We've had 200 years of human element in music and it's about time for a change."[46] It is not much of a stretch to apply this sentiment beyond the realm of music. If "soul" represents the idea of a transcendent agency, then insectile futurisms are anti-soul or "postsoul."[47] This is where it begins to get scary. One might say: God is dead, and his corpse is beginning to decay.

The Dirty Future

The "future" in futurism never refers to the actual future as it will occur. If it did, futurism would lose all its power and become the meaningless argument that whatever will happen should happen. Instead, the "future" is always a symbol representing other symbols. This is why, although it may sound contradictory, many futurisms link the "future" to a distant past. Olympian futurism does this when it claims that the future will be a reinstatement of the grand orders of ancient times. For example, Isaac

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[46] Reynolds, Generation Ecstasy, 128.
[47] Eshun, More Brilliant, -006.

Asimov's "Galactic Empire" was modeled after the Roman Empire. Insectile futurism lays claim to a more mysterious, wild past. Kodwo Eshun writes: "The older the Rhythmachine, the more futuristic it is." For insectile futurists, both the past and the future constitute ruptures in the present: "Funk becomes a secret science, a forgotten technology that has been hidden until now."[48]

Insectile futurisms systematically deconstruct notions of goodness by imagining exciting or inevitable futures in which the values of humanism have been turned upside down – in other words, by reappropriating the symbols of disassembly. If the future of olympian futurism is linked to order, rationality, transcendence, and cleanliness, then insectile futurists claim the opposite symbols for their visions – symbols such as magic, dirt, sex, bodies, insects, liquid. Eshun describes the way in which magic is linked to futuristic technology:

> Traditionally 20th C science sterilizes all myth: myth starts where science stops. But the recording medium acts as an interface *between* science and myth.... Magic is just another name for a future, an as-yet unknown medium, a logic identified by both Arthur C. Clarke – 'Any sufficiently advanced technology becomes indistinguishable from magic' – and Samuel R. Delany: 'At the material level, our technology is becoming more and more like magic.'

Dirt is another symbol that has long been aligned with disassembly and chaos. Men have called women dirty, and whites have done the same to blacks and to others. But is "dirty" really an insult? In a world where "cleanliness is next to Godliness," it is crucial for disempowered groups to disassociate themselves from dirtiness and to demand inclusion in the club of cleanliness. On the other hand, it may also eventually be necessary to upset

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[48] Ibid., 141.

the hegemony of clean. After all, dirt is the earth that gives us life, and cleanliness after a point is just repression. Disempowered groups should ideally be respected on their own terms without being forced to apply for admission to the ideological camps of those in power.

The symbols of assembly and disassembly are thus constantly being reevaluated. In our culture, sexuality is considered dirty, and both are linked to the human body, whereas technology is often seen as both clean and sterile. Some people argue that sexuality is not dirty; others argue that dirtiness is not bad. Insectile futurists argue that technology's revolutionary potential is precisely how dirty and sexual it has the capacity to be. Marinetti claims the symbol of dirt explicitly in his manifesto, when he "savor[s] a mouthful of strengthening muck." With regard to sexuality, the Italian Futurists produced a whole "Manifesto of Lust," and J. G. Ballard wrote that "sex times technology equals the future."[49]

Dirtiness, sexuality, and technology are easily seen as disassembling processes because they force the mind to inhabit the material world. This is why the interface between human and machine is often seen as either sex or masturbation.[50] (The difference depends on whether the machine is seen as an agent or as a tool.) Sexuality, like dirtiness and like technology, represents the power of the physical over the mental. In a culture that believes so strongly in free will, mere physicality itself can be deeply subversive and disassembling. It thwarts our desire to keep our hands "clean." Our culture is finally being

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[49] Valentine de Saint-Point, "The Futurist Manifesto of Lust," in The Niuean Pop Culture Archive <http://www.unknown.nu/futurism/>; Ballard quoted in Claudia Springer, "The Pleasure of the Interface," in Hopkins, 484.

[50] Claudia Springer, "The Pleasure of the Interface," in Hopkins, 489.

forced to located the mind in the physical body, with many repercussions for philosophy and politics: increased environment awareness, finger-painting in kindergarten classrooms, and the recent wave of scholarly interest in dance – just to name a few.

The battle over the body is very clear in techno music. Much techno music is made for dancing and is therefore highly embodied. However, some kinds of techno hold back and remain tied to disembodiment. For example, according to Eshun, so-called "intelligent" techno attempts to "resurrect the premodern opposition in which the mind is bizarrely superior to the body."[51] Simon Reynolds, another music journalist, also scorns the label "intelligent," pointing out that the desire to distance this genre from brainless dance-floor fodder is often part of a "class-based or generational struggle."[52] It is the young and the working class who are at the cutting edge of embodied music, while the old and wealthy prefer their music olympian. Furthermore, clubs that advertise "intelligent techno" really want "the purging of the black hip-hop influence that had 'polluted' the Detroit-descended genealogy of pure techno."[53] Reynolds writes:

> For all its rhetoric of "progression," intelligent techno involved a full-scale retreat from the most radically posthuman and hedonistically funktional aspects of rave music toward more traditional ideas about creativity, namely the auteur theory of the solitary genius who humanizes technology rather than subordinating himself to the drug-tech interface.[54]

This is also what Eshun is saying when he writes that the beatless music of soundtrack-composers like Vangelis is "as futuristic as the Titanic,

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[51] Eshun, More Brilliant, 022.
[52] Reynolds, Generation Ecstasy, 342.
[53] Ibid., 181.
[54] Ibid., 182.

nothing but updated examples of an 18th C sublime." According to Eshun, critics too often "lament the disembodiment of the human by technology." In fact, he says, "the posthuman era is not one of disembodiment" but of "hyperembodiment." He even writes that "VR dematerializes you but Machine Music rematerializes you," as if danceable techno were an antidote to the disembodiment of virtuality.[55]

Even within techno that is made for dancing, there are more and less embodied styles. Reynolds describes two parallel trends in the culture of techno:

> Dance music has long been home to two radically opposed versions of what rave is "all about." One one side, the transcendentalist, neopsychedelic discourse of higher planes of consciousness and oceanic merger with Humanity / Gaia / the Cosmos. On the other, Ecstasy and rave music slot into an emergent "rush culture" of teenage kicks and cheap thrills: video games; skateboarding, snowboarding, bunjee jumping, and other "extreme sports"; blockbuster movies whose narratives are merely flimsy frameworks for the display of spectacular special effects.[56]

The first vision of rave is olympian and transcendental, and it is linked to the drug Ecstasy. This kind of rave culture is perhaps "the first youth subculture that's *not* based on the notion that sex is transgressive.... Rave locates bliss in prepubescent childhood."[57] Reynolds goes on to point out that this is especially interesting since Ecstasy was originally designed to be an appetite suppressant, and "anorexia has long been diagnosed as a refusal of adult sexual maturity and all its accompanying hassles." The other, more embodied version of rave prefers Speed to Ecstasy.[58]

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[55] Eshun, More Brilliant, 067, 098. Vangelis composed the music for Blade Runner.
[56] Reynolds, Generation Ecstasy, 010.
[57] Ibid., 247.
[58] For more on the difference between between Speed and Ecstasy, see the introduction to Section V.

"Hyperembodiment" is a fascinating concept, most easy to understand in the context of music. If a drum machine produces rhythms that are appropriate to the human body, then a drum machine (or "rhythm synthesizer") has the capacity to go beyond that, past the body. Many rhythms overlapping at high speeds produce a sound that cannot be adequately danced to. It is also possible – although more difficult – to imagine a hyperembodied virtuality, a virtuality which is "viscous, sticky, and sometimes cerating."[59] Thus "we are not moving towards a virtual body, but towards a multiplication and an over-modeling of it."[60]

Our most powerful image of a multiplied and over-modeled body is that of the *swarm*. There are of course different levels of swarming, and each is more terrifying than the last. A wolfpack is already frightening in its ability to split apart and dissolve into the darkness only to attack suddenly as single force. A swarm of rats is even worse, because the individual units are smaller and more numerous.[61] This goes one step further with the insect hive, and even further in the case of plague. Wolves, rats, insects, bacteria – each one is more insidious than the last. A swarm is a terrifying enemy because it has no vulnerable spots. A person can be killed with a single wound in the right place, but to destroy a swarm one has to annihilate every component: every wolf, every rat, every insect, every bacterium. If one single unit remains there is the potential for regeneration.

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[59] Kode9, "Interview with kode9," in Powerbase Alpha #7 <http://www.powerbase-alpha.com/articles/030.html>.
[60] Dyens.
[61] Deleuze and Guattari describe their "rhizome" as "when rats swarm over each other." They use both wolves and rats to illustrate the concept of a "swarming" (Deleuze and Guattari, 7, 26-38, 233).

Technology, which had previously been highly organized and centralized, is increasingly swarming: the single-processor computer becomes the distributed network; broadcast television becomes the interactive world wide web; the telephone system, which was already quite distributed, becomes a buzzing horde of wireless cell-phones. Computer chips multiply like vermin in toasters, cars, watches, and even clothing, while other technologies are being developed to allow these chips to communicate without being routed through a central computer. Meanwhile, the bomb has been replaced by germ warfare in our collective nightmare of World War III. The language of insectile futurism parallels these technological transformations; my imagery of bugs and vermin actually derives from several descriptions of a certain style of "insectile" techno.[62] Eshun writes: "Chittering, cawing, creaking, shrieking, rattling, shaking: percussion becomes a nonlinear malevolence. Rhythm is a biotechnology."

Swarming is conceptually disturbing because it represents the disassembly of the body into a tech. DNA molecules, organelles, and bacteria are the insects that compose the human hive. A virus is an insectile invasion, against which science deploys its own insectile warriors such as viral inoculations and microscopic cameras. This brings us back to the problem of agency. As Dyens asks, "where is the intelligence in a hive?" It cannot be located because it is not local. Even an organism like the human body is far more swarming than we like to think. Many of our organs function independently from our sense of agency: we do not tell our hearts to beat, our

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[62] Eshun, More Brilliant, 007; Simon Reynolds, "Feminine Pressure: 2-Step Garage" at homepage <http://members.aol.com/blissout/2step.htm>. This is the director's cut of an article published in The Wire, April 1999 as "Adult Hardcore."

immune systems to fight disease, or our stomachs to digest food. In fact, we do not even control our thoughts and desires. Our "selves" are not under control. Human agency is thus a collage of lesser agencies: organ, cell, organelle, molecule, atom, particle, quark. Every element is a swarm of lesser elements. Agency does not abruptly stop at any one level; it simply diminishes with complexity. The mind and the body are two different ways of talking about the same thing.[63]

Beyond wolves, rats, insects, and bacteria, we enter liquidity. Even a swarm of wasps is made up of individual units, but as the number of units approaches infinity and the size of each one approaches zero, the swarm transforms into a living liquid. This is a quantitative change that eventually becomes a qualitative one. As Donna Haraway writes: "Miniaturization has changed our experience of mechanism."[64] Nonlinear theorist Manuel de Landa describes the transformation from olympian to insectile science: "We are beginning to see that the really advanced technology is liquidy and drippy and self organizing and not at all rigid."[65] Dyens predicts:

> In the future, computers will mutate beyond recognition. Computers won't be intimidating, wire-festooned, high-rise bit factories swallowing your entire desk. They will tuck under your arm, into your valise, into your kid's backpack. After that, they'll fit into your face, plug into your ear. And after that – they'll simply melt.[66]

Dyens goes on to equate this melting with the "light and clean" vision of technology as pure light, but this is a misunderstanding about the nature of

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[63] For more complex descriptions of the mind as colony of interacting functions, see Douglas R. Hofstadter, Gödel, Escher, Bach, and Marvin Minsky, The Society of Mind.
[64] Haraway, 153.
[65] Quoted in Eshun, More Brilliant, 088.
[66] Dyens.

disassembly. Melting is not a form of transcendence. As technology shrinks, it also multiplies. We are witnessing the hyperembodiment of technology, not its disappearance. Computers have grown smaller, but they have not becomes less visible. In the 1950s, when computers took up whole rooms, they were unknown to everyone but the military and scientists. Now that they can fit in the palm of your hand, they are everywhere.

Similarly, the increased swarming of the human body (approaching what Deleuze and Guattari call the "body-without-organs") must not be misread as a form of transcendence. To do so would involve retaining agency in the old sense – for example, treating a wasp colony (or indeed a person) as a single unified agent. This is the old olympian view which postmodernism refutes by pointing out the differences between individual wasps. The same refutation holds in the case of a liquid: just as a wasp colony is composed of many distinct wasps with different life histories, a liquid is composed of a much larger number of individual molecules with different velocities. To ignore the smaller units in favor of the large one brings us back to the olympian view. Liquid in the insectile view does not imply uniformity.[67]

Dyens compares the human body of the future to the T-1000 cyborg in James Cameron's film Terminator II (1991). Unlike its predecessor, which was a more traditional cyborg constructed out of hard steel and circuitry, the T-1000 is pure liquid and can take on any form.[68] However, it is important to

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[67] Of course, both views are always valid. A gas can be treated as single system or as a vast swarm of particles. Each view is useful under different circumstances.

[68] Another gorgeous cinematic vision of liquidity is the virtual sex that takes place in The Lawnmower Man (1992). Encased in full-body VR interfaces, the two lovers' bodies melt and fold into one another. Real-life sex is often described as a melding, but physical bodies are eternally, perhaps tragically isolated inside their skins. Virtual sex has no such limitations. Sherry Turkle, in writing about

realize that the liquidity of the T-1000 does not extend to its mind, which behaves as a unified agent through the film. (As a child watching, I often wondered its brain could be located.)

A liquid mind is far more difficult to imagine than a liquid body, because of the problem of locating agency. Deleuze and Guattari use the concept of *schizophrenia* to tackle this issue. In their sense, a true schizophrenic is far more swarming than a person who merely has multiple personalities. In a truly liquid brain, no structures on the scale of "personalities" exist; they have all been disassembled. De Landa writes in similar terms about the effects of drugs: "When you trip, you liquefy structures in your brain, linguistic structures, intentional structures."[69]

To liquify intentional structures is to disassembly agency, and therefore to go beyond the human in any recognizable sense. Thus the most extreme symbols of disassembly have to do with rejecting the "human" explicitly. Haraway writes that we are all already cyborgs. Eshun says that a certain producer of techno "isn't human," and that the musician Sun Ra "is disgusted with the human. He desires to be alien."[70] Finally, a member of the Cybernetic Culture Research Unit (CCRU) describes the group as "part theory, part fiction, nothing human, constructs so smoothly assembled you can't see the joints."[71] In the end, "human" becomes just another symbol that can be claimed or rejected, like "clean" or "dirty" or "heavy" or "light."

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cybersex, mentions heterosexual sex, homosexual sex, transsexual sex, sex with animals, and sex with groups (Sherry Turkle, "Tinysex and Gender Trouble," in Hopkins, 407). But this is just the beginning. Virtual sex could potentially be a much, much wilder experience.

[69] Quoted in Eshun, More Brilliant, 053.

[70] Eshun, More Brilliant, 044, 155.

[71] Mark Fisher, "Writing Machines," in Word Bombs <http://www.altx.com/wordbombs/fisher.html>.

Rupture and Coolness

The danger of using all these ideas as mere symbols for disassembly is that disassembly itself can be turned into a chic commodity. It has been observed, for example, that "in Wired [Magazine], the hot new item of consumption these days is the subversive artist."[72] Wired is a famous publication of technology porn, in which it is sometimes difficult to tell the advertisements apart from the articles. If Wired is trying to disassemble anything, it is only the idea that technology is nerdy. Thus the subversive artist in Wired is not really subversive at all; it is just a symbol to make the readers feel cool. A truly subversive artist would be busy deconstructing the absurdly olympian politics of the magazine's utopian worldview.

The commodification of disassembly is an important issue in the science fiction genre of *cyberpunk*. The cyberpunk age of science fiction began in the early '80s, with Ridley Scott's film Blade Runner (1982) and William Gibson's novel Neuromancer (1984). In contrast to the Golden Age of Asimov and Clarke, cyberpunk might well be called the Dark Age of science fiction. The future of cyberpunk is fascinating because it is *thrillingly dystopian*. Orwell and Lang may have been proto-cyberpunk, but their dystopias were genuinely dystopian, and their technologies were clearly evil. In contrast, cyberpunk romanticizes the rebellious potential of disassembling technologies in a way that is both liberating and potentially dangerous.

In fact, cyberpunk has a history of latching onto the symbols of disassembly and using them for effect. In some cases, this can be seen as part of the genuine disassembly of various social structures, but in other cases it is

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[72] Anonymous, "Heath Bunting: Wired or Tired?," in Bosma et al., 261.

nothing more than a gimmick to make the readers feel cool. Cyberpunk is most interesting when it investigates how technology can actually be used to dismantle the structures of human civilization. This is the sense in which Deleuze and Guattari have been explicitly referred to as cyberpunk thinkers.[73] But cyberpunk often fails to go that far. Most importantly, it is infamous for a kind of primitivism in which black people are used as symbols for fashionable disassembly. It would be one thing if this disassembly were directed at the racism of hegemonic white culture, since black people are indeed a source of rupture in the racist power structures of white America, and that is indeed cool. But cyberpunk, written and read mostly by white folks, often uses black people as a symbol for coolness while steadfastly avoiding any genuinely disassembling politics of race.

The image of the spiritual black hacker appears as early as the "orbital Rastafarians" in Gibson's Neuromancer. Kali Tal writes further:

> Although the large majority of black hackers (like white hackers) share Oliver's middle-class roots, it's the image of the black guerilla hacker that pervades cyberspace, conferring on white cyberculture critics, cyberpunk writers and hackers alike an aura of exoticism and danger, conferring... cool.[74]

In other words, Tal continues, blackness becomes a symbol that "stands for rupture in the white psyche." She then goes on to quote a primitivized black hacker character from the film Johnny Mnemonic who

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[73] Erik Davis notes the distinction between "the D&G of Anti-Oedipus, who marked a generation obsessed with Freud and Marx , and the D&G of A Thousand Plateaus, who marked a generation obsessed with Donna Haraway and cyberpunk" (Erik Davis, "The Witch's Flight," in Figments and Inklings <http://www.levity.com/figment/dg.html>). See bibliography for original publication.

[74] Kali Tal, "Duppies in the Machine" <http://www.kalital.com/Text/Writing/Duppies.html>. This is an unpublished draft, reprinted with permission of the author. Oliver is Oliver Wendell Jones, a character in Berkeley Breathed's comic strip Bloom County.

describes his headquarters in the explicit terms of postmodernism and backlash disassembly:

> We built Heaven completely out of straight-world junk, all hauled up here piece by piece. We work with Spider and his people and anybody else who's fighting the system. We out shit for them... Heaven, heart and soul. This is where we fight back. We strip the pretty little pictures from the fine print channel universe, recontextualize, then we spit the shit back 'em, special data, things that'll help people.[75]

Tal is justifiably angry at white people who appropriate elements of black culture in order to make themselves feel cool, and there is no doubt that cyberpunk is guilty of this. Because of America's long history of racism, white people using blackness as a symbol for rupture smacks of disempowering appropriation. Tal writes:

> The virtual African American ... bears almost no relation to actual African Americans; he might better be described as a white man's black man. In a world where there are two realities, the danger is that the substitute will bear no resemblance to the actual, and that in a circumstance in which 'actual' African Americans rarely interact with the majority of white folks, the substitution will take precedence in the white imagination and simply come to make the reality invisible.[76]

Cyberpunk appropriates the chic subversiveness of "blackness" as a symbol without attempting to deconstruct racism. This is why the renowned science fiction author Samuel R. Delany calls cyberpunk "a pervasive misreading of an interim period of urban technoculture."[77] The misreading is the idea that using technology in unintended ways is necessarily a significantly subversive thing to do. This is the idea behind Gibson's famous

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[75] Quoted in Ibid.

[76] Ibid. Rosi Braidotti worries along parallel lines that science will allow men to "replace the woman with the technological device -- the machine -- in a contemporary version of the Pygmalion myth" (Braidotti).

[77] Mark Dery, Flame Wars, 193-4.

cyberpunk motto that "the street finds its own uses for things." It became impossible for Delany to read cyberpunk this way after the Rodney King events, because although cyberpunk claims to be connected to "the street," it leaves behind "the anger, the rage, the coruscating fury from the streets" in favor of a commodified subversiveness. Cyberpunk allows white people to enjoy the chic of disassembly without actually having to disassemble anything important.

The same argument could be made about the CCRU's "theory-fiction," which is explicitly cyberpunk. The CCRU does not hesitate to appropriate any symbol that may be helpful in the fight against the enemy values of traditional humanism. These symbols include the black and the Chinese, even though the group itself is mostly white and middle class. In addition, according to Reynolds:

> ... the weird thing about CCRU is the disparity between their writing and their reality as people. They are all incredibly nice! Very English, polite, enthusiastic. You imagine these deranged, Manson-like culty types or Gothic cyberdaemons and the reality is so different! It's particularly striking with Nick Land, whose writing is so deranging and corrosively antihumanist, and he's this cuddly kind of guy....[78]

For all its talk of disassembly, the CCRU leaves many social structures intact. Corrosive disassembly appears far more powerfully in their writings than in their actual personalities or politics.

Every movement contains both assembly and disassembly; the question is which structures are disassembled and which ones are left intact. As Tal and Delany show, although cyberpunk does radically disassemble some structures – such as the family, the state, and the body – it often leaves

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[78] Simon Reynolds, personal correspondence, Oct. 2000.

the most obviously harmful structures – such as racism and sexism – intact. There is much to learn from the methods of cyberpunk, but we must not mistake it for "pure" disassembly.

It is interesting to note how many insectile futurist movements appear as well-ordered groups of young men. The Italian Futurists were one such group: they wore uniform black suits to signify the unity of their intent, even as they preached fire and destruction. Similarly, Sun Ra's "Arkestra" was "an all-male orchestra run as a Military Monastery" in which the musicians were likened to marines.[79] Survival Research Laboratory, though less strictly run, is another group of young men. Mark Dery describes them as a mix between the Hell's Angels and Peter Pan's Lost Boys.[80] The original cyberpunks were also such a group.

Of these groups, only the Italian Futurists were fascist. But the fact that every one of them is all male shows how disassembling movements may continue to uphold the power structures of the larger society, such as sexism. On further reflection, it is clearly impossible to form a movement that goes against every single socially assembled structure. Even the most well-intentioned movements simultaneously reinforce dominant power structures. The civil rights and feminist movements have often struggled with this; the former has been accused of sexism and the latter of racism. There is no escape from this problem, because it is the problem of agency.

Even the most disassembling dreams are "embedded in a rhetoric of self-creation and self-invention based on the assumption of a voluntarist

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[79] Eshun, More Brilliant, 161.
[80] Mark Dery, Escape Velocity, 129.

subject."[81] (Kali Tal, for example, limits her critique of cyberpunk by basing it on the difference "between inventing oneself and being invented by someone else," in other words on an argument of authenticity.) As long as agency remains intact, it will be impossible to reach pure disassembly. The agent who tries to dissemble any given structure will always bring with it, internally, other structures. Thus it has been said that historically "there has never been a project for delegitimating cultural practices that did not turn immediately, or sooner, into a means of legitimation."[82]

Alien, Cyborg, Hive

The fact that agency prevents pure disassembly need not be cause for despair. If cyberpunk is problematic because it disassembles the wrong structures, then it ought to be possible to apply insectile futurism more usefully to other structures more in need of disassembly. For example, insectile futurism could be pointed at precisely the structures which cyberpunk tends to leave intact: race and gender. This is precisely the method of the two movements known as "afrofuturism" and "cyberfeminism" respectively.

The word "Afrofuturism" was coined in 1993 by Mark Dery, to refer to "Speculative fiction that treats African-American themes and addresses African-American concerns in the context of twentieth-century technoculture – and, more generally, African-American signification that appropriates images of technology and a prosthetically enhanced future."[83] He sites

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[81] Oliver Marchart, "For a Colonial Discourse Analysis of Cyberspace," in Bosma et al., 475.
[82] Paul Mann, The Theory-Death of the Avant-Garde, quoted in Timothy Druckrey, "Fast, Cheap and, Out of Control," in Bosma et al., 263.
[83] Mark Dery, Flame Wars, 180-2.

Basquiat, John Sayles, Jimi Hendrix, George Clinton and Sun Ra (among others) as afrofuturists.[84] The history of afrofuturism as a field of study, however, begins with an article published by Mark Sinker in 1992. Sinker's view of the history of science fiction was as follows:

> In its Golden Age, white science fiction promised itself ... a world without war, hurt or hunger (also, tactless enough, without black folks). In its paranoid phase ... the political hysteria (being swamped by Red or Yellow perils) is endlessly animated by an unease only memorably articulated by [Public Enemy] two years back: Fear of a Black Planet. In its present form – Cyberpunk – white SF, or anyway its radical leading edge, is arguing that the planet, already turned Black, must embrace rather than resist this: that back-to-nature pastoralism is intrinsically reactionary, that only ways of technological interaction inherited from the jazz and now the rap avant garde can reintegrate humanity with the runaway machine age.[85]

Here again, blackness is not a skin color but a symbol for disassembly – specifically, Sinker is referring to the technological disassembly of jazz and rap music. Using blackness as a symbol this way once again runs the risk of implying that black people are inherently disassembling, rather than that they disassemble specifically white structures. For afrofuturism this is a calculated risk – one that the potential to be far more radically liberating than the humanist civil rights approach.

According to Eshun, Sinker's article "made the correlation between Blade Runner and slavery, between the idea of alien abduction and the real events of slavery."[86] The film Blade Runner is about a group of cyborgs

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[84] "Afrofuturism" in this sense can refer to any artist who makes the connection between science fiction and black culture – ranging from the staunchly humanist to the wildly futurist. The afrofuturism website <http://www.afrofuturism.net/> is run by Kali Tal, who as we have seen is fundamentally a humanist. The work of Kodwo Eshun and Rammellzee are examples of more futurist afrofuturism.
[85] Mark Sinker, "Loving the Alien," in The Wire May 1998 <http://www.thewire.co.uk/out/0598_1.htm>. Reprinted from The Wire, Feb. 1992.
[86] Eshun, More Brilliant, 175.

("replicants") and the detective ("blade runner") assigned to kill ("retire") them. The replicants are essentially indistinguishable from humans except that they are smarter and stronger than we are. Nevertheless, they are treated as slaves. The movie makes a subtle and powerful argument on behalf of the genuine humanity of the replicants. In this sense, although there are no black characters, Blade Runner is a civil rights movie. Eshun makes the analogy between cyborg and slave:

> Like the robot – Karel Capek's '21 Czech neologism for a mechanized worker – the slave was actually manufactured to fulfill a function: as a servomechanism, as a transport system, as furniture, as 3/5 of the human, as a fractional subject... Hence the endless arguments in the 18th C about the ability of slaves to read or write, the equivalent to 20th C arguments concerning the potential existence of artifical intelligence.[87]

However, there two versions of Blade Runner, the original release and the director's cut, and the director's cut contains a crucial difference: the humanity of the blade runner himself is brought into dispute – he may himself be a replicant. In the original version, certain "tools" (cyborgs/slaves) are shown to have agency. In the director's cut, the category of the human is also questioned.

This is where afrofuturism breaks away from movements for civil or human rights, which are based on humanism. According to these arguments, a certain group of people needs to stop being excluded from the category of human. This argument has also been applied separately to slaves, poor people, women, queers, the sick, the insane, children, the elderly, fetuses, and the comatose. In every case, it is a battle over where to draw the line between agents from tools, which according to humanism also defines who has rights.

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[87] Ibid., 113. "Manufactured to fulfill a function" imparts the status of tool rather than agent.

Afrofuturism, in contrast, attempts to demolish the category of the human. The anti-slavery movement proclaimed: black people are human beings! The afrofuturist movement proclaims: there are no human beings. Eshun writes that "most African Americans owe nothing to the status of the human," and that the human is "a really pointless and treacherous category which has never meant anything to African-Americans."[88]

Afrofuturism thereby blasts open traditional black politics. Instead of using the established values of humanism to prove the humanity of black folks, afrofuturism rejects those values outright. Eshun writes: "By opting out of [hip-hop's] logic of representation, Techno disappears itself from the street, the ghetto and the hood."[89] Eshun does not want to prove the authenticity of black experience. As an afrofuturist, he revels in the very disappearance that Tal fears: "Back in the 70s and 80s, audiosocial vanguards bet everything on visibility, identification, public enmity. But in the Techno era, 'Disappearance is our future.'"[90]

What makes afrofuturism so powerful is that it does not rely on traditional (white) values to make its point. This distinguishes it from traditional identity politics:

> [Sinker's connection] opened up a continuuum between science fiction, techno theory and music. Black science fiction uses a whole cluster of names which is very important – so there's Black science fiction, Black futurism, Atlantic futurism, international futurism, sonic fiction and phono fiction. It's a possibility space which leaves behind or moves away from traditional notions of Black culture as based on the street for instance, based on traditional notions of masculinity, based on traditional notions of ethnicity. It's a

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[88] Eshun, More Brilliant, 193.
[89] Ibid., 102.
[90] Ibid., 122.

> boredom with those ideas. It has left traditional identity politics, traditional cultural studies far behind.[91]

Tal is right to see in disassembling futurism "the disappearance of the subject" and "the dismissal of history as a valid discipline."[92] Afrofuturism explicitly "eludes all social responsibility" and "turns away from roots."[93] Eshun wants music to arrive "unblack, unpopular, and uncultural, with no ground, no roots and no culture."[94] Along these same lines, Sun Ra is reported to have said: "I ain't part of America, I ain't part of black people. They went another way. Black people are carefully supervised so they'll stay in a low position. I left everything to be me, 'cause I knew I was not like them. Not like Black or white, not like Americans...."[95]

Afrofuturism usually goes further than the parallel movement of "cyberfeminism." Perhaps this is because it is so strongly tied to the arts of music and literature, whereas cyberfeminism is strongest inside academia. Perhaps for the same reason, cyberfeminism can offer a theoretical depth which afrofuturism sometimes lacks. This theoretical depth is evident in Donna Haraway's "Cyborg Manifesto," which explicitly rejects traditional essentialist feminism in favor of radical disassembly. Symbolically, Haraway replaces the goddess with the cyborg. As in the quote from Tricia Rose at the beginning of this section, she also contrasts two different visions of technology – olympian and insectile:

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[91] Chris Flor Ulrich Gutmair, "futurhythmachine – Kodwo Eshun on DJs and Dancers in the Primusical Soup," in Crash Media, May 1998 <http://www.yourserver.co.uk/crashmedia/utn/8.htm>.
[92] Tal.
[93] Eshun, More Brilliant, -004-3.
[94] Ibid., 131.
[95] Ibid., 155.

> From one perspective, a cyborg world is about the final imposition of a grid of control on the planet, about the final abstraction embodied in a Star Wars apocalypse waged in the name of defense, about the final appropriation of women's bodies in a masculinist orgy of war. From another perspective, a cyborg world might be about lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints.[96]

Haraway's manifesto "is an argument for pleasure in the confusion of boundaries.... Postmodern strategies, like my cyborg myth, subvert myriad organic wholes (for example, the poem, the primitive culture, the biological organism). In short, the certainty of what counts as nature."[97]

Haraway does not resolve the conflict between feminist politics and radical disassembly. Rosi Braidotti, another cyberfeminist, makes this conflict explicit by claiming to reject both camps: one the one hand "postmodernists who seize advanced technology as the possibility for multiple and polymorphous embodiments," and on the other "the many prophets of doom who mourn the decline of classical humanism." In the end, though, Braidotti makes the "cyber" subservient to the feminism. Thus she writes of "the need for political resistance" even in the "posthuman predicament" of "hyper-reality," and she asks whether the "blurring of gender boundaries" will necessarily "work to the advantage of women."[98]

As social movements, both afrofuturism and cyberfeminism find themselves caught between politics and futurism. In order to be of use to actual women or black people, they must have arguments to propose about

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[96] Haraway, 154.

[97] Haraway, 150.

[98] As this essay will show, I believe in politics and I agree that disassembly always has ideological repercussions. However, for the purposes of this section, it is more important to consider those thinkers who go furthest towards the purely insectile outlook.

how the world should work. This is the “afro” or “feminist” side. On the other hand, in order to avoid being trapped in the white male hegemony of the present order, they position themselves as willing to disassemble literally everything. This is the “futurist” or “cyber” side.

Of course, the conflict between politics and radical disassembly (that is, disassembly which goes below the human level) is not unique to these two movements. A “movement” is defined by its agenda, and this is prevents it from falling apart. At the same time, having an agenda prevents a movement from ever reaching *pure* disassembly. Afrofuturism and cyberfeminism are uniquely postmodern in that they claim to “go all the way” towards disassembly – but they are only political movements to the extent that their disassembly remains limited.

IV. Punk and Funk

Agenda in a movement is analogous to the agency in a person. In both cases, a distinction must be made between the use of disassembly in the service of assembly and the genuine reign of pure disassembly. Agency is the more difficult case, however, because it is also the basis of humanist morality. It is one thing to argue that social movements should not be treated as solid agents – in other words, that the bottom line of a movement is its individual participants. It is very different and much more radical to claim that individuals should not be treated as solid agents – in other words, that the human unit is not the bottom line.

According to humanism, a person is an indivisible unit – or what I call a *punk:* an entity that can disassemble without itself being disassembled. This concept is necessary to understand insectile futurisms.[99] Even writers who demand the disassembly of the human being and claim to want "pure disassembly" cannot avoid retaining some punks – they merely locate their punks in unexpected places. The punk is the last thing left standing when the whole world has fallen into pure disassembly – the last agency in a world of techs. If the punk has become an increasingly important figure in recent culture, it is because the world seems to be disassembling before our eyes. Our last hope – our last refuge – is our own agency.

Surviving the Warzone

> Cyberpunk is concerned almost exclusively with punks.
>
> > Gibson's characters do not fall in love or take up by themselves intricate long range acts of violence. If a lover dies they may be offended that somebody invaded the territory of an ally. They do not work together with anyone well. One could not imagine them in a war. They have no domestic life and call upon no traditional wisdom to guide them through existence. Imperfection in humanity inspires them to travel of fight. The desperation of punks makes morals or honor a meaningless luxury none of them can afford. They are addicts who prefer addiction to other concerns on principle. One can orchestrate an addiction and control it. Once cannot do so with lovers, governments, Nature and corporations. If they live in the future they are in all ways profound reactionaries.[100]

The "punk" in cyberpunk comes from punk rock, a genre of music that articulates a strong desire to disassemble mainstream society. Punk rock,

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[99] The equivalent term in Deleuze and Guattari is "warmachine," for reasons that will become clear in Section V.

[100] "Meditations on Cyberpunk" (unattributed) in Newworlds Magazine <http://www.nywcafe.com/neww/n-gib.htm>.

unlike techno, does not have much of a relationship with technology.[101] Hence the “cyber” in cyberpunk. However, unlike cyberpunk, punk rock often involves progressive politics, so that the appropriation of the word “punk” by cyberpunk is another example of commodification.

In any case, the punk represents survival. He or she (usually he) lives in a warzone, a place of constant danger and threat. One of the original meanings of the word “punk” was an “involuntary” passive male homosexual “plaything.”[102] Metaphorically, the modern punk is raped by the violent warzone that surrounds him – specifically, by the corporate power brokers who control that world. Despite (or because of) this violence directed against punks, they do not ultimately surrender. Their social identities and even their bodies may be penetrated, but their agency remains intact.[103] In fact, the integrity of the punk is only enhanced by abuse. The violence of the warzone forces the punk to turn inward, to a protected place of invulnerability.[104] The status of victim only makes the punk more righteous – Hence once again the connection between punk, slave, and robot. External disempowerment gives rise to an internal fighting spirit. The constantly shifting warzone requires the punk to become completely self-dependent: a loner, a ranger, a ronin, a cowboy,[105] an outlaw.[106] A Gibsonian cyberpunk earns his name by surviving in a violent, dystopian world, just as the gangsta

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[101] Reynolds, Generation Ecstasy, 102.
[102] “Punk” in the Oxford English Dictionary <www.oed.com>.
[103] The protagonist in Neuromancer is figuratively raped by the men who forcibly inject him with a chemical that causes a specific kind of brain damage, such that he can no longer “jack in” to cyberspace. Crucially, the brain damage has no effect on his mind.
[104] Eshun writes that “the skin is the borderguard of the self” (Eshun, More Brilliant, 099), but more often the boundary is internal or even transcendent.
[105] Hackers in Neuromancer are actually called "cowboys."
[106] "Jungle is outlaw music" (Reynolds, Generation Ecstasy, 259).

in gangsta rap proves his toughness by surviving in the hood. Even Horatio Alger can be read as a mythological punk – an entrepreneur who pulls himself up by his own bootstraps in the warzone of the free market.

So the punk comes to be "safe and dangerous."[107] Listening to dark techno is like "cruising in a car with a booming system, you're sealed by surround sound while marauding through urban space."[108] One techno producer says: "I want to hurt people with my beats."[109] But of course, if the beats were truly painful (like piercing audio feedback), no one would come. The techno audience is not that postmodern. Instead, the beats represent a certain kind of power. "It's almost like you're being drugged by the beat, you're being beaten by the drug. And the fact is, you love it."[110] The power of imagining death is predicated on the fact that you're not really dying. Similarly, cyberpunk is enjoyable reading mostly for those who do not actually live in warzones.

Although the punk is historically a deeply masculine figure, it is possible to imagine a female punk. In fact, in the last decade it has become increasingly fashionable to do so.[111] However, it is not possible to imagine a truly vulnerable punk. A punk is always protected from the surrounding warzone by the boundary that separates internal from external. This is how punks eventually come to control the elements of the warzone rather than being controlled by it – and this ability to control is called "hacking."

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[107] Eshun, More Brilliant, 096.
[108] Reynolds, Generation Ecstasy, 349.
[109] Ibid., 352.
[110] Kodwo Eshun, "Abducted by Audio," in Abstract Culture #3 <http://www.ccru.demon.co.uk/swarm3/3_abducted.htm>.
[111] I am thinking both of male-fantasy femme fatales like Lara Croft and genuinely subversive punk warriors like Ani Difranco.

The Hacking Mentality

Ron Eglash is currently working on an anthology to be called Appropriating Technology, which will describe and analyze several different manifestations of hacking in explicitly political contexts.[112]

> Some examples suggested for the anthology so far: the development of new audio technologies from Hip-Hop, AIDS and environmental racism activists teaching themselves epidemiology and running their own studies, the automotive innovations of Latino low-rider cars, internet communication by subaltern groups (e.g. NoirNet), cybercafes in non-elite neighborhoods, hormone use by transsexuals, beeper / phone tech use by prostitutes, use of video in indigenous resistance movements, ethnomathematics use in minority education, using hormones as abortifacients in Southeast Asia, agroecology inventions in neocolonial contexts, electronic device innovations in North Africa, historical anthropology of Black inventors and patents, adaptive redesign by the disabled.
>
> The technoscience cited here ranges from the development of totally new inventions, to mere changes in the *use* of ready-made tech. The communities range from the very marginalized, to people who are merely non-elite. I think it's important to keep this as an open range: if restricted too much it will be ghettoized as something only of concern to Oppressed Others. In some cases there is clearly some vital center-margin cooperation that needs to be better appreciated; in other cases we are in need of a more critical analysis for a process too easily assumed to be Better Living Through Science. Theoretical perspectives on the Appropriating Technology
> theme would also be appreciated.[113]

"Hacking" is using technology in subversive ("wrong") ways – in other words, disassembling the accepted use vector of a tool. A desktop computer, for example, has many intended use vectors as detailed in the user's manual. Typical users want computers to obey these use vectors completely, and are annoyed when they do not. A hacker, on the other hand, is interested in bending the rules, or applying use vectors not intended by the

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[112] Homepage of Ron Eglash <http://www.rpi.edu/~eglash/eglash.dir/atintro.htm>.
[113] Ron Eglash, "Appropriating Technology," in Göteborgs Universitet, Feb. 1996 <http://www.rpi.edu/~eglash/eglash.dir/atintro.htm>.

manufacturer. In the spirit of subversiveness, this is often referred to as the "abuse" or "sabotage" of technology. Thus cyberpunks see technology as "always potentially corruptible,"[114] and techno musicians are interested in "fucking with the rulebook, freaking with the formula. New music gives the finger to the system."[115]

The question remains: which system? Hacking a piece of technology is not the same as hacking a social or political institution. This is what Delany means when he calls cyberpunk a "misreading" of urban technoculture. Cyberpunks mostly use their hacking skills in the service of money and power, and cyberpunk as a genre has no radical politics. On the other hand, it is certainly possible to be a political hacker, as Eglash's book will show.[116] In that sense, at least, the street does find its own uses for things.

The key to hacking is "erasing the manufacturer's distinction between features and bugs."[117] Thus the hacker is "someone who can nurture a bug, who can breed a bug."[118] In this terminology, a *feature* is a commonly accepted use vector and a *bug* a break in that vector. (Once again, disassembly is symbolized by the insectile.) For most people, a bug is a problem that must be fixed: a bug in computer code annoys the programmer trying to assemble ("compile") their program; a bug in a security network is puts whatever is being inside at risk; and a bug in society is a potential revolution. To a hacker, bugs represent hidden potential.

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[114] Dyens.
[115] Eshun, More Brilliant, 020.
[116] For examples of political hacking withinin cyberculture, see ®™ark <http://www.rtmark.com/> and AdBusters <http://www.adbusters.org/>.
[117] Reynolds, Generation Ecstasy, 365.
[118] Eshun, More Brilliant, 189.

When a bug becomes a feature, new territory is opened up for exploration. This is the spirit in which Eshun demands that the "drum machine" should really be called a "rhythm synthesizer."[119] The former name implies a tool for imitating drums, such that any unrealistic sounds it produces must be errors. But a rhythm synthesizer's most interesting feature is that it can produce inhumanly fast or complex rhythms – rhythms that could never be created by an actual drummer. A rhythm synthesizer is a new instrument precisely because it opens the door to whole new rhythmic territory that had previously been inaccessible. Its least interesting feature is its ability to reproduce the sound of real drums.

The same thing can be said about the digital sampler, which is used to record very short sounds for use in other contexts. According to Reynolds, attitudes about the sampler "split between postmodernist and modernist." The modernist view is that the sampler is simply "a tool for collage," but for postmodernists the sampler is "a crucible for sonic alchemy – the transmutation of source material into something 'new,' sounds that seemingly originate from imaginary or even unimaginable instruments."[120] So the sampler, like the rhythm synthesizer, is not just a tool for efficiently imitating other tools. Once this use vector has been hacked, the sampler opens up a whole new space of creativity, pointing in a new direction: away from real drums and recognizable samples and towards inhuman rhythms and imaginary instruments.

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[119] Ibid., 015.
[120] Reynolds, Generation Ecstasy, 042.

Techno producers enjoy discarding the manufacturer's use vectors. A common claim is "that the first thing they do when they've acquired a new machine is to throw away the manual and start messing around."[121] However, this messing around – although it may begin as undirected play – is eventually directed towards the creation of music. If the manufacturer's use vectors are ignored, then other use vectors will be assembled in their place. These use vectors will once again set up a distinction between bugs and features. Thus the hacker passes though disassembly on the way to reassembly. All good hackers spend a lot of time "messing around" with their technology, interacting with it playfully, and treating it like a tech, but in order to accomplish anything, the technology must eventually be redirected and use vectors must be assembled. A hacked tool is not the same tool its manufacturer intended, but it is still a tool. This is parallel to the problem discussed in the previous section with regard to political movements: disassembly is used in the service of eventual reassembly.

It is therefore a mistake to think that hackers are infinitely experimental with their technologies – that they treat them as genuine techs. Even the most radically innovative and subversive use vector is still a use vector. As long as there is a user, the tool cannot be completely disassembled. In other words, agents imply tools and tools imply agents. If tools are to become techs, agents must also become techs. This can never happen with hackers, because hackers are fundamentally punks. The act of hacking presupposes that the hacker is an internally assembled agent.

Ribofunk Mongrel Mermaids

[121] Ibid., 050.

If postmodern technologies are both seductive and scary, it is because the surrender of agency is both seductive and scary. Our lives are based around maintaining coherent identities, and the mental unraveling associated with insanity is in fact a kind of death. At the same time, however, there are always those artists and thinkers who find themselves intrigued by the disassembly of the self. Indeed, we all pass through moments of sanity and moments of insanity, so it is only a question of how to conceive of such liminal moments: are they bugs or are they potential features? This is the most difficult question posed by postmodern technologies, and no final answer is possible. "Depending on one's stake in the outcome, one can look to the cyborg to provide either liberation or annihilation."[122]

Loss of agency is loss of control. This scares us but we also find ourselves drawn towards it. Sex can involve this kind of surrender, and often surrender in discussed in terms of sex. The merging involved in sex can be either the most pleasurable or the most revolting experience, depending on whether it is consensual. The pleasure of consensual sex involves a certain loss of solidity – even a loss of identity – and this is precisely what makes rape such an evil. In the most paradoxical cases, with technology as with sex, pain and pleasure are indistinguishable. Thus the director of the Japanese film Tetsuo, in which a man slowly transforms into a cyborg, writes:

> What I thought when I was making Tetsuo was that you can experience euphoria even if you're being raped by the machine. At the same time, there is always this urge to destroy technology, the industrial world. That conflict was going on inside me when I was making Tetsuo – the feeling that I enjoy being raped by the

[122] Claudia Springer, "The Pleasure of the Interface," in Hopkins, 499.

> machine but at the same time I want to destroy the things that are invading me, the human being.[123]

There is indeed a tendency to see becoming a cyborg as a violent process, in which a soft (feminine) human body is forcibly invaded by a hard (masculine) technology. A member of the CCRU likens "the violence of the sounds in techno" to "being turned inside out, smeared, penetrated."[124] As mentioned above, the metaphor of rape is even visible in the origin of the word punk. In some cases – such as a car crash – the metaphor of rape is applicable. But in many other cases, it is a misreading of technology that is inspired by our own prejudices. Rape, after all, is an artifact of patriarchal culture. Technology, although it can be a tool of patriarchy, is not inherently bound up in patriarchal patterns of domination. In fact, just as the violence of rape prevents it from being a true merging of beings, our most violent imagery of technology assumes that there will never be a true union of flesh and machine. In other words, technology may invade the human but it will always remain intrinsically foreign. The human will always resist the foreign invasion and therefore the fusion will never be complete. Instead, there will be what Anja Klöck calls a "fascistized mermaid."[125]

A fascistized mermaid is made up of two foreign systems superficially jammed together. Klöck's example is a collage by the Italian Futurist Bruno Munari that depicts "two versions of a being that is half woman and half plane." The first being has the top half of a woman and the bottom half of a

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[123] Mary Dery, Escape Velocity, 274.

[124] Simon Reynolds, "renegade academia: CCRU" at homepage <http://members.aol.com/blissout/ccru.htm>. From an earlier draft, used with permission of the author.

[125] Anja Klöck, "Of Cyborg Technologies and Fascistized Mermaids: Gianina Censi's 'Aerodanze' in 1930s Italy," in Theatre Journal 51.4, Dec. 1999, Johns Hopkins University Press <http://muse.jhu.edu/journals/theatre_journal/toc/tj51.4.html>.

plane; in the second being the parts are reversed. In both cases, the binary remains intact, and "it is always clear which part of the being is woman and which part is machine." Klöck contrasts these "fascistized mermaids" with the "aerial dances" of Giannina Censi, another Italian Futurist.

> In the aerial dances it is never clear whether Censi simulates the plane and its movements or exteriorizes the plane's effect on her, whether she physicalizes the pilot's feelings, a spiritual experience, or the plane's encounter with forces such as wind, rain, clouds and light ... in other words, her performances blur the boundaries between woman and machine, materiality and spirituality, mind and body, signifier and signified.

In Munari's work, the point of contact between human and machine is a site of resistance and therefore violence. Like the border between the punk and the warzone, it is a line of demarcation and struggle. In the service of Munari's recombination, the woman and the plane must each be chopped rudely in half. In Censi's work, there is no dividing line. Instead of two systems stuck together we have one. The plane and the woman exist simultaneously in the same space.

A fascistized mermaid is like two solids brought together so that their surfaces touch without genuine interpenetration. A genuinely cyborgized mermaid, on the other hand, is more like two liquids poured together: the result is complete integration – a single liquid. The two original liquids are still present, but their essences are dissolved. Therefore there is no resistance on either side – no violence – only complete surrender. This is the sense in which Haraway advocates "pleasure in the confusion of boundaries."[126] However, it must be noted that this kind of (con)fusion of identities requires

[126] Haraway, 150.

the total surrender of individuality, making it both more and less terrifying than the superficial merging of the fascistized mermaid.

The true cyborg is a *mongrel*, an integration of systems so smoothly blended that they can no longer be distinguished from each other.[127] There is no hierarchy of dominance among the different liquids that combine to form a mongrel. Thus, according to Eshun, *funk* is the opposite of *cool.* "As an emotional anaesthetic, cool crowns the head king of a body organized into a poised corporation of one."[128] The cool body is what Deleuze and Guattari call the "organism," and it is the nemesis of the body-without organs.[129] Reynolds writes that the organism is "oriented around survival and production," whereas the funky body, or the body-without-organs, "is composed out of all the potentials in the human nervous system for pleasure and sensation without purpose."[130]

Reynolds cites the musician Tricky as a prime example of mongrelization. Even Tricky's name sets him up as a trickster figure.

> Racially, stylistically, sexually, Tricky is one slippery fellow. [His first album] is an unclassifiable hybrid of club and bedroom music, black and white, rap and melody, song and atmospherics, sampladelic textures and real-time instrumentation. It sucks you into the polysexual, transgeneric, mongrelized mindspace inside Tricky's skull. How did he get into such a state? It's the drugs / technology interface – boundary-blurring, connection-

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[127] I take the term "mongrel" from a London-based group of artist-activists who describe themselves as a "mixed bunch of people and machines working to celebrate the methods of an 'ignorant' and 'filthy' london street culture." Once again, the dumb and the dirty are mixed in with the smart and the clean as hierarchies of value are disassembled.

[128] Eshun, More Brilliant, 142.

[129] Deleuze and Guattari, 158.

[130] Reynolds, Generation Ecstasy, 246. Of course, survival and reproduction are not the only use vectors that can be assigned to the organism. The point is only that the organism has use vectors in the first place. The body-without-organs, the funky or mongrelized body, has no use vectors because there is no centralized agency "using" it.

> facilitating, but also fucking with stable identity, letting the id come out to play.[131]

Eshun goes even further:

> Martina [another artist] and Tricky are not so much singers as fluxes, perpetually transmitting abrupt bursts, human aerials resonating with the low-frequency oscillations of the city in tremulous sympathy. Tricky's not interested in narrative as much as psychogeographical textures that blur the subject = object divide into a hazy continuum.[132]

It is impossible to exaggerate what is at stake here. The human being, the fundamental unit of moral responsibility and value, the subject, the ego, that which acts and experiences, is being replaced by a distributed, mongrelized pattern which cannot be essentially or ontologically distinguished from the rest of the universe. As the Zen master said to the hot dog vender: "Make me one with everything." The human being becomes a tech, and agency undergoes a phase transition to become a slippery, shifting fluid.

This is what Paul di Filippo was trying to imagine when he predicted that a "ribofunk" genre of science fiction would succeed that of cyberpunk.[133] Even the word "ribofunk" calls for an intensification of disassembly in two parallel ways. First, the vision of technology shifts from "cyber" – which implies the digital technologies of the "information age" – to "ribo" – which suggests biology, the "dirty" science of the body. Second, the "punk" – or agent – is vaporized into "funk" – which is gaseous and distributed, an atmospheric element, a mood.

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[131] Reynolds, Generation Ecstasy, 330.

[132] Eshun, More Brilliant, 059.

[133] Paul di Filippo, "RIBOFUNK: The Manifesto" at STREETtech <http://www.streettech.com/bcp/BCPgraf/Manifestos/Ribofunk.html>. See bibliography for additional resources.

V. The Intransitive War

Military imagery is increasingly popular in our cultural moment. In fact, insectile futurism is full of the imagery of war, from cyberpunk to techno music. Perhaps this is because there has been no war on American territory in recent memory. The Italian Futurists, who also glorified militarism, were equally unfamiliar with real war. However, the war glorified by postmodern culture is not the war that may erupt between nations, for that kind of war – although it is extremely violent – is also highly organized. When nations wage war, they implement their strictest forms of control.[134] This kind of war, for all its destructive potential, is therefore quite olympian. Insectile war is very different. The hypercapitalist world of cyberpunk, for example, is not a regimented battle between large established forces but rather an anarchical field of violence.

> Gibson's world seems to be entirely a realm of business enterprises; there is no sign of government or law. People do as they please. There are no police ... The map of Gibson's planet Earth would show, not nations, but spheres of influence of interlocking or warring corporations ... In a world where many corporations live and work together for diverse interests in the same place, it is not easy. People have private bodyguards or their own arsenal of weaponry to deal with the predators that haunt such areas.[135]

This is the kind of warzone inhabited by the punk. Cyberpunk characters never fight national wars because there are no nations in the warzone. The state's monopoly on violence has dissolved. Instead, cyberpunks are constantly fighting numerous battles on different scales on

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[134] The war in Orwell's 1984 is a good example. This is further proof that although Orwell's book is proto-cyberpunk in some respects, it sees technology as an essentially assembling force.
[135] "Meditations on Cyberpunk."

behalf of various “spheres of influence.” Thus the cyberpunk is more of a bounty-hunter than a soldier, and the warzone is a feudal landscape of competing tribes.[136]

As explicitly cyberpunk theorists, members of the CCRU also tend romanticize hypercapitalism as a dynamic warzone. Their article “Cyberpositive” praises capital as “a viral contagion that scorns national boundaries, deletes cultural traditions and overrides human priorities.”[137] Here, hypercapitalism is an infection that disassembles national, cultural, and social structures. This view purposefully ignores the assembling aspects of capitalism in order to contrast it with the nation-state system. According to the CCRU, hypercapitalism is not a new system of powerful multinational corporations, but an idealized free market, a zone of pure war.

Simon Reynolds coined the term “intransitive war” to describe certain phenomena in techno / rave culture. One of the themes of his book is the “utopian / dystopian dialectic” of this culture. Reynolds writes that “rave culture has no goal beyond its own propagation; it is about the celebration of celebration, about intensity without pretext or context.” This applies to both the lightside and the darkside, and if the utopian culture of Ecstasy is full of “intransitive amorousness,” then the “darkside” culture Speed is an “intransitive war.” Thus “gabba” techno “offers all the pleasures of war without the consequences.”[138]

As Reynolds reminds us, “Amphetamine [Speed] also has historical connections with warfare.” But rave culture is not about real war. Jungle

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[136] This is a “Dark Age,” as discussed in the following chapter.
[137] Reynolds, "renegade academia: CCRU."
[138] Reynolds, Generation Ecstasy, 010, 243, 284-5.

music may "mak[e] you feel like you're stepping into a war zone," but the dancers do not actually have to fight. Instead, the warzone is rendered safe for the listener, who gets to play the role of invulnerable punk – "safe and dangerous." This is why military imagery in techno never invokes the rigid bureaucracy of the army, but goes instead for the "discipline, ruthlessness, realpolitik and subterfuge" of the paramilitary unit or guerilla strike force.[139] The punk is neither victim nor lord but something in between: a wandering warrior, a mercenary figure.

The Darkside

The intransitive war is one way to access the more general concept of *darkness,* which is one of the anti-Enlightenment concepts that has recently been reclaimed by disassembling futurists.[140] The darkness of the intransitive war is not the darkness of void or emptiness. Instead, it represents pure disassembly; the swarming; a hive of infinite potentials. This darkness is the ultimate warmachine – that which disassembles everything it comes in contact with.[141] Thus the love of darkness is the thrill of radical disassembly, and as Reynolds points out, "'dark,' like the hip-hop term 'ill,' is a sort of vernacular shorthand for 'avant-garde.'"[142] Hence also the exhilarating fantasy of a new Dark Age. "Time feeds forward into the new Dark Ages,"

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[139] Ibid., 350, 220-2. See also Simon Reynolds, "Wargasm: Military Imagery in Pop Music," in The Red Feather Journal of Postmodern Criminology #6 <http://www.tryoung.com/journal-pomocrim/vol-6-virtual/wargasm.html>.

[140] This explains why darkness and liquidity are so often associated, as in "liquid dystopia." (Eshun, More Brilliant, 083). It is the backlash against 200 years of the Enlightenment's dream of an undoubtedly solid utopia.

[141] Deleuze and Guattari use the term "total war" to refer to "the war machine that no longer ha[s] anything but war as its object" (Deleuze and Guattari, 231). This is the intransitive war. The war machine prior to that point is still a punk headed towards eventual reassembly.

[142] Eshun, More Brilliant, 217.

writes Eshun.[143] The punk sees the warzone as something separate, and can therefore enjoy its utter annihilation with impunity: “Imagine surveying the earth after a nuclear destruction and enjoying what you see. That’s how it feels when you listen to [darkside techno].”[144] This is a perfect example of the self-alienation that Walter Benjamin described in 1935.[145] Even when the punk begins to dissolve into mongrelization, this is still seen as a brutal process in which the essentially independent punk is violated by the invading warzone. Thus darkside techno creates “this sense of being snatched by drugs, of being kidnapped into your head, of drawing out the madness in you.”[146] Or, to put it even more violently: “Your spine’s being filleted and it feels just great.”[147] Because the solidity of our own agency is such an underlying presumption, we cannot imagine the process of mongrelization as anything other than a violent invasion. At the same time, we are seduced and intoxicated by the idea of pure war. This leads to a “a mood-blend of euphoric anticipation and dystopian dread.”[148] We are simultaneously terrified and excited about the coming Dark Age.

Military imagery only serves to push us towards the terrifying side of this equation. In the warzone as usually described, there is no room for genuine humanity of any kind. This is why becoming a parent so radically altered Reynolds’ opinion on theories that romanticize the intransitive war:

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[143] Ibid., 051.
[144] Ibid., 295.
[145] Epilogue of "The Work of Art in the Age of Mechanical Reproduction,” in Illuminatins (New York: Schocken, 1969). Benjamin writes that mankind’s "self-alienation has reached such a degree that it can experience its own destruction as an aesthetic pleasure of the first order.”
[146] Eshun, More Brilliant, 096.
[147] Ibid., 087.
[148] Reynolds, "renegade academia: CCRU."

> … there's nothing more sobering than having a kid (as i do) --- you start thinking about stuff like air pollution (causes asthma in kids), and how fucked up it is that you have to put sunblock on your baby cos of the oxone layer, and what happens when there's a next recession. the CCRU cult of instability and capitalism's permanent crisis mode and darkside everything just doesn't fit when you have a 1 year old bundle of joy and vulnerability... The realities of free market graft and survival are more banal and more grinding than the William Gibson dystopia fantasy.[149]

There is no room for children in this kind of warzone; the hypercapitalist world of cyberpunk "is not a safe place to raise a family or build a healthy community."[150] Cyberpunk authors, however, do not address this issue with any seriousness. They simply leave children and families out of their narratives. In contrast, the science fiction of Octavia Butler is not "darkside" or cyberpunk, although it depicts a similarly post-apocalyptic world. This is because it is genuinely horrific. The trouble with the darkside vision is once again that it commodifies the destructive power of war and fails to acknowledge its corresponding human suffering – very much like a video game. In many ways, this imaginary war is just the fantasy of young men who have never encountered real violence.

War as Metaphor

Just as rape is not the only way to think about the process of mongrelization, the intransitive war does not have to be thought of in the terms of real war. In fact, the concept of the warzone becomes most interesting when we remove its association with violence and suffering. It can then be seen as a metaphor for disassembly. Of course, it may seem crass to treat war as a metaphor – and the fear of the humanist is always that the

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[149] Reynolds, personal correspondence, Oct. 2000.
[150] "Meditations on Cyberpunk."

metaphor will take precedence over reality. But for those who want to catalyze radical aesthetic or political change, the power that the imagery of war brings with it can be very useful. This is also true for the concept of a Dark Age. Thus Deleuze and Guattari quote Henry Miller:

> China is the weed in the human cabbage patch. ... The weed is the nemesis of the human endeavor.... Of all the imaginary existences we attribute to plant, beast and star, the weed leads the most satisfactory life of all. True, the weed produces no lilies, no battleships, no Sermons on the Mount.... Eventually the weed gets the upper hand. Eventually things fall back into a state of China. This condition is usually referred to by historians as the Dark Age.[151]

The Dark Age, the weed, and China are used here as symbols of disassembly. As in the case of afrofuturism, we have to ask whether "sinofuturism" may be just another form of primitivism – especially when it is employed by Deleuze and Guattari (French) or the CCRU (English). One wonders whether China is being honored for its own attributes or simply because it is not part of the "West." In any case, the point is to access new territory that had previously been rejected as dark and chaotic.[152]

One hundred and fifty years before cyberpunk, the culture of Gothic Revivalism celebrated darkness in a similar way. In fact, Victor Hugo's 1831 description of the poorest part of Paris reads exactly like a cyberpunk warzone – without the technology:

> In this city, the boundaries between races and species seemed to have been abolished, as in a pandemonium. Amongst this population, men, women, animals, age, sex, health, sickness, all seemed communal, everything fitted together, was merged, mingled and superimposed, everyone was part of everything.... It

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[151] Henry Miller, in Henry Miller and Michael Frankel, Hamlet, quoted in Deleuze and Guattari, 18-9.
[152] Notice, though, that disassembly is made possible by the reassertion of the punk; when a weed takes over a garden, the result is not pure disassembly but a new system of control in which many other plants cannot grow.

> was like some new world, unknown, unprecedented, shapeless, reptilian, teeming, fantastic.[153]

Hugo actually goes further than many of the writers discussed in this essay, because he does not stop his disassembly at the level of the human. By bringing animals, sex, and sickness into the mix, Hugo crosses the boundary that separates human from object. His darkside is therefore not a place of mongrelized human beings who nevertheless remain distinct from each other, but rather a "shapeless" and "fantastic" swarm of animal, vegetable, and mineral. This teeming darkness represents the abolishment of all boundaries, and it is obviously not a void. It is disassembly but it is not death.

Jungle has been called "the living death of rave."[154] The word "living" here is crucial, because jungle is a vibrant and powerful musical genre in its own right. It may represent the end of an era in techno, but it also represents the birth of a new one. In addition, "living death" also begins to describe certain aspects of this new era: for example, the more explicit contrasting of punk and warzone.

> Composed literally out of fracture ("breaks"), jungle paints a sound picture of social disintegration and instability. But the anxiety in the music is mastered and transformed into a kind of nonchalance; the disruptive breakbeats are looped into a rolling flow. In this way, jungle contains a nonverbal response to troubled times, a kind of warrior stance.[155]

The anxiety, the disruption, the warzone, is "death." The nonchalance, the warrior, the punk, makes it a "living death." Again, death does not refer to physical violence – it refers instead to the cultural operations of

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[153] Victor Hugo (trans. John Sturrock), Notre-Dame of Paris (London: Penguin Books, 1978), 100-1.
[154] GE 256.
[155] Ibid., 251-2.

postmodernism. For example, the breakbeats of jungle, because they come from hiphop, are complex and syncopated – so jungle is the death of regular, predictable rhythm.[156] In fact, many breakbeats are so funky that "the human body simply can't do full justice to the complex of rhythms" – so jungle is also the death of music as a tool for dancing.[157] Furthermore, "jungle is the most digitized and sampladelic music on the planet. Nothing is recorded through a microphone" – in other words, jungle depicts a musical "event" that never took place.[158] "Sounds have detached themselves from their sources" – so jungle is also the death of music as a tool for revisiting actual events.[159] Finally, as in the examples above, jungle's own imagery – both verbal and musical – flirts with the ideas of death and destruction.

Thus there are many facets of death, and many of these facets are not necessarily evil. If the Enlightenment symbols of regularity, predictability, rationality, lightness, and disembodiment are all part of the assembled structures of European patriarchy, then the "living deaths" of irregularity, unpredictability, irrationality, darkness, and hyperembodiment are just what we need to escape from those structures of dominance. In other words, much of what we associate with "death" has nothing inherently to do with actual death. If we see magic, dirt, lust, bodies, insects, and liquid as forms of death, then entering into death as jungle does may mean nothing more than reassigning positive meaning to those symbols. These symbols – including

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[156] "The predictability that allows one to trance out was replaced by a palpable danger" (Ibid., 253).
[157] Ibid., 654.
[158] Ibid., 342.
[159] Eshun, More Brilliant, 047.

even death itself – may then be advanced as transgressions against the established order.

The Culture Wars

War as a metaphor represents the collision of multiple systems. Basically, this simply means a high level of *interactivity*.[160] The systems involve can be the opposing nations of a "real war," but many other systems can interact in a warlike manner. War can be seen between a bullet and the flesh it tears; between deconstruction and the academy; between hiphop and pop music; between television and real life. The systems involved can be cultural (languages, styles, or paradigms) as easily as material. The warzone is simply an area or period in which numerous systems clash and break apart. It is therefore also a place of shifting meaning in which different regimes of interpretation overlap and interact.

The systems that collide in a warzone will retain their separate structures to varying degrees. Between systems that strongly resist the loss of their identity, points of contact will be violent and the result will be fascistized mermaids.[161] On the other hand, if systems are more easily denatured then the warzone will continue to fall towards the distant horizon of pure swarming until new punks arise and assemble their own structures of control. It will be easiest to see these processes in action if we remain for the moment within the realm of cultural practice. There we can see how different

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[160] See Calin Dan, "Interactivity as War (excerpt)," in Bosma et al., 416.

[161] For example, the war between a bullet and the human body it enters is violent because the body wants to retain its own integrity, to survive as an independent system. If the bullet can be absorbed into the body as a new organ, the system formed by bullet + body can survive. But the organism is dependent on its organization to live. To mongrelize the body without killing it requires advanced postmodern technology.

aesthetic and theoretical systems battle it out on the dance floor, on the sides of trains, or in the texts of academic discourse. We can also begin to see that none of these warring systems can be essentialized – for each one is also a little war in itself.

In 1979, the enigmatic artist Rammellzee published what he called an "Iconic Treatise on Gothic Futurism."[162] This text is interesting because it is both internally war-torn and an argument in a larger war. (This is actually the case with all texts, but here it is especially obvious.) Within the text, language itself is radically disassembled.[163] Indeed, much of it reads like hallucinatory nonsense, especially when Rammellzee disassembles words as well as sentences – by injecting mathematics into them for example, as in "L+AxT=IN."[164] It is easy to see how the treatise is itself an intransitive war where different semiotic systems collide.

However, Rammellzee's article also includes an argument on behalf of the cultural movement of hiphop. According to Rammellzee, a certain style of graffiti known as "wildstyle" is a kind of warmachine that disassembles mainstream language. Because it deconstructs even the basic unit of letters themselves, wildstyle graffiti is "a SYMBOL DESTROYER." But wildstyle does not destroy the alphabet; it merely mutates it to the point where it is "totally illegible unless you're initiated."[165] Thus, like any code, it works by

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[162] Rammellzee, "Iconic Treatise on Gothic Futurism" at Afrofuturism, 1979 <http://www.afrofuturism.net/Text/Manifestos/Rammellzee01.html>.

[163] Even the title is a warzone. An icon is an image, but a treatise is a written argument, and "Gothic Futurism" is a clash of past and future.

[164] Again, it is the text that is mongrelized, not necessarily Rammellzee. Cultural structures are relatively easy to disassembled, as compared to the structure of the human being. This transition from "cultural" to "material" disassembly will be discussed in the next section.

[165] Eshun, More Brilliant, 031.

injecting a foreign system into standard language. Many codes collide the alphabet system with numbers and number theory; wildstyle collides letters – the actual symbols – with systems from visual art such as 3D perspective, topological transformations, abstract patterns, and so on.[166]

The term "wildstyle" can be applied to the injection of a foreign code into any established system, which happens all the time in postmodern theory. Recent theorists enjoy hacking the language almost as much as Rammellzee.[167] In this way many postmodern theorists create their own kind of slang, and champions of standardized grammar have as much to fear from literary theory as they do from ebonics – although of course they fear the black warmachine more than the white one. Deleuze and Guattari celebrate this potential to disassemble a dominant structure. In their terms, one can "use the minor language to send the major language racing."[168]

This is exactly the language tech of rap does. As Eshun describes it, "the Ultramagnetic lyrical engine operates by 'combinating elements', connecting a suffix to a prefix, using these machineparts of 'vocab' to 'connect the abulary', then 'switch it'."[169] Even Eshun's description of language tech is itself a collage of samples, and Eshun himself creates words at an incredible rate throughout his book. Simon Reynolds writes:

> Puns, self-coinages and compound terms like "sonomatter", "conceptechnics", "clairaudience" and "auditionary" (the last two refer to seers who work with sound rather than vision) induce a

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[166] All four elements of hiphop work according to this principle. If graffiti is a collision of writing and painting, then breakdance is a collision of dance and mime, spinning is a collision of music and computers, and rap is a collision of "rhythm and poetry." In fact, any cultural movement can be seen as a war between various traditions.

[167] As Kali Tal writes: "I don't hack computers. I'm a literary critic, so I hack text."

[168] Deleuze and Guattari, 105.

[169] Eshun, More Brilliant, 027.

> pleasurable disorientation akin to starting a William Gibson novel, where it takes 40 pages before you get any grip on how this strange new world works.... The influence of Marshall McLuhan, Virilio, and Deleuze & Guattari isn't just intellectual but stylistic.[170]

The language tech of Rammellzee is only quantitatively more war-torn than that of many recognized postmodern theorists. It is only a small step from injecting words with punctuation such as parentheses and slashes – which has become popular in postmodern theory – to injecting them with mathematical signs. Nick Land of the CCRU writes:

> () (or (()) or ((())))) does not signify absence. It manufactures holes, hooks for the future, zones of unresolved plexivity, really so (not at all metaphorically). It is not a "signified" or a referent but a nation, a concrete interruption of the signal (variably blank, pause, memory lapse ...) / cut / into(schizzing (( ))) / a machine. Undifferentiable differentiator (= 0) outside grammaticalness. Messageless operation / s technobuzz (wasps switching).[171]

We may call this garbage or we may call it brilliant, but it is certainly some kind of warzone. Land injects punctuation, metaphor, math, and insects into his philosophy. If his paragraph is opaque, then that is a kind of darkness. The words are so far out there, so torn by war, that they arrive at our doorstep almost unintelligible. Yet to throw them and demand a bottom line of grammatical standardization is too easy – like throwing out radical futurism because it ignores the bottom line of humanism. In each case, we must investigate what old systems are at war and what new systems are being born.

We can now begin to look at society as a battlefield on which different cultural systems and trends interact. This is a very different vision from the

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[170] Simon Reynolds, review of More Brilliant than the Sun at homepage <http://members.aol.com/blissout/eshun.htm>. This is the director's cut of an article originally published in The Guardian July 1998.

[171] Nick Land, "Cybergothic," in Dixon and Cassidy, 86.

olympian one in which human society progresses towards ultimate truth or perfection. That vision, which is associated with a belief in God or destiny, sees disassembly as a bug or error in the overall process of assembly. The intransitive war, on the other hand, is created equally by processes of assembly and disassembly – which is why this view makes for a very different value system. If progressive transformation is meant to lead to perfection, then systems and trends can be judged accordingly. Science, for example, will be good science only if it has ultimate truth value. If, on the other hand, we are living in the midst of an intransitive war, then systems and trends must be judged by more local and pragmatic standards. Science will then be good science "when it works." This is the beginning of science "turning into technology."[172]

Olympian science is aimed at achieving absolute theoretical truth, and olympian thought in general treats texts as if they were transcendent ideas, independent of material context and "objectively" true or false. In contrast, "functionalist" thought is insectile, because it treats texts as tools for accomplishing specific context-based objectives. According to functionalism, the meaning of a text is determined by its author's intent, but how this intent plays out will depend on the cultural context. Functionalism is therefore a punk perspective, because although the context into which the text is inserted may be a wild and funky warzone, its central argument or meaning is essentialized by the agenda of its creator – in other words, by the human agent.

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[172] Raf "Valvola" Scelsi, "The Networking of Intellect," in Bosma et al., 206.

It is also possible to treat a text as a true tech, such that its meaning does not rely on the context of object truth or on the coherence of the author's intent. The text, or tech, becomes an independent system in the intransitive war, and its survival is no longer tied to that of its creator.[173] This kind of thought may be called *funktionalism*. Thus, according to Deleuze and Guattari, "a book itself is a little machine."[174] The CCRU prefers along similar lines to replace the term "philosopher" with "concept-engineer."

> Critique, [Eshun] argues, is a rhetorical mode that puts the heavy burden of History on your shoulders, whereas the concept-engineer is into speculation. "Most theory contextualizes, historicizes and cautions; the concept-engineer uses theory to excite and ignite," Eshun proclaims. Where "thinker" evokes an effete and important ivory-tower detachment, "engineer" suggests someone who gets down-and-dirty with the material word (in Deleuzian terms, someone who operates and maintains desiring machines). Like a DJ or jungle producer, the concept-engineer is a "sample-finder": s/he's free to suspend belief in the ultimate truth-value of a theory and simply use the bits that work, in the spirit of Deleuze and Guattari's offering up of A Thousand Plateaus as tool-kit rather than gospel.[175]

In his introduction to A Thousand Plateaus, Brian Massumi writes that one must not approach the book asking "is it true?" but rather "does it work?"[176] This is also the central paradigm that Reynolds proposes for evaluating electronic music: "Unlike rock music, rave isn't built around lyrics. For the critic this requires a shift of emphasis, so that you no longer ask what the music 'means' but how it *works*. What is the affective charge of a certain kind of bass sound, of a particular rhythm?" In other words, one must ask how the music interacts or wages war on the human system. The metaphor of

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[173] The author is therefore "dead" in the sense of being irrelevent to interpretation of text.
[174] Deleuze and Guattari, 4.
[175] Reynolds, "renegade academia: CCRU."
[176] Deleuze and Guattari, xv.

war is especially appropriate when one considers that neurochemical engineering is as common in rave culture as music engineering. As Reynolds notes: “By 1992 hardcore ravers were veritable connoisseurs of poisons, skilled at mixing and matching drugs to modify their own neurochemistry and achieve the precise degree of oblivion desired. This ‘street knowledge’ often expressed itself in the imagery of science.”[177]

In some cases, “The vogue for the word ‘science’ also suggests that a disembodied and dispassionate detachment is the right way to approach music.”[178] But this is olympian science. Insectile science (as in “breakbeat science”) is directly opposed to this tradition, which comes out of 17th century “natural philosophy.” Eshun describes the opposition between these two conceptions of science: “In the classical 2 cultures in mainstream society, science is *still* the science that drains the blood of life and leaves everything vivisected. But in music it’s never been like that; as soon as you hear the word science, you know you’re in for an *intensification* of sensation. In this way, science then refers to science of sensory engineering.”[179] Insectile science “does not clarify: instead it perplexes, complexifies.”[180] Hence Eshun’s book, More Brilliant than the Sun, encourages music “to put out the sun.”[181] Here the sun represents Apollonian rationality, the Enlightenment, and all the other symbols that are associated with the dream of perfect assembly.[182] For

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[177] Reynolds, Generation Ecstasy, 211.
[178] Ibid., 374.
[179] Eshun, More Brilliant, 177.
[180] Ibid., 028.
[181] Ibid., -004.
[182] Eshun even treats mathematics as a system which is falsely presumed to be universal. Against 17th century logic, he proposes the guerilla or "militarized mathematics" of Rammellzee (Eshun, More Brilliant, 034). Ron Eglash also writes about "ethnomathematics," but in a more sober way. Eglash

Eshun, music is the most powerful warmachine available to combat this restrictive dream.

If breakbeat science is a form of hacking, this is not only because the breakbeat hacks the dancer.[183] The breakbeat, because it is sampled rather than performed or recorded, also hacks the discourse of music. In other words, hacking is part of the art form as well as the content of an individual work. When hacking does not have this larger relevance, we have only commodification and not real disassembly. Novels like Neuromancer are about hacking, but they do not actually hack the social landscape. Readers of cyberpunk get to feel like hackers without having to actually go out and hack anything. Cyberpunk appropriated blackness as a symbol of hacking, but it did not hack racism. It did hack the literary world by becoming the first genre of modern science fiction to be respected in both pop culture and academia, but this is not politically very radical since science fiction readers were never an oppressed minority.

As with cyberpunk, it is difficult to find any powerful political hacking in techno. Once again, though, the artistic discourse is being soundly hacked, and this is important. Techno makes the transition from a song-based to a track-based discourse. A track differs from a song in several important ways; basically, a track lacks all the borders by which a song defines its essential identity. For example, tracks are played in the context of a DJ set, so that it is likely to appear among many other similar tracks – which makes it less likely

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studies the ways in which non-European cultures have conceptualized mathematics (see Eglash, home page <http://www.rpi.edu/~eglash/>). Without having to say that 2+2 is not 4, it is possible to argue that there are other, equally valid ways of writing or imagining the equation.

[183] Eshun, More Brilliant, 068.

to be recognized as an independent unit. Also, in order to keep the set smooth, the DJ will usually make the transition from one track to the next as invisible as possible – which erases the chronological border at the beginning and end of each track. In addition, the DJ may play two or more tracks simultaneously, matching the different beats to create a single groove – in which case the tracks will certainly be indistinguishable. And this is just the beginning: a track can include samples from other tracks; it may even be constructed entirely out of samples; once a track is produced it becomes a set of resources for future tracks to sample or remix or both.[184]

To put this theoretically: smooth transitions erase the diachronic borders between tracks; overlapping mixes and beatmatching erase synchronic ones; and sampling makes a postmodern pastiche or "bricolage" out of every track. The integrity of the track is lost in all directions. In many cases, the dancers do not know the names of the tracks they are hearing, let alone their authors, and this is not a problem. Authorship has become multiple and complex, distributed among everyone who has contributed to the creation of a given work. "Instead of a finite entity ... the song is treated as a set of resources that can be endlessly adapted and rearranged."[185] The sanctity of the song has been broken down, and its use vectors disassembled. It has become a tech.

None of this means that techno tracks are meaningless. Techno scene is full of meaning, but it has shifted levels. According to Reynolds, "the 'meaning' of the music pertain[s] to the macro level of the entire culture"

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[184] Many of this hacking was already going on in jazz, but technology allows it to go much further. Jazz is to techno as the drum set is to the rhythm synthesizer.
[185] Reynolds, Generation Ecstasy, 278.

rather than to the individual track. In place of song identities, there is a multiplication of genre identities: techno, house, garage, jungle, gabba, goa, trance, industrial, trip-hop, hip-house, tech-step, neuro-funk, drum & bass, ambient, illbient, and so forth. These neologisms are not an explosion of meaninglessness; they are a new system of meaning created for a new kind of musical discourse. Of course, rock music is also a tech – its units (songs) just happen to maintain their identity more in the intransitive war.[186] No musical genre is pure. This is why Sun Ra rejects the romanticization of the black American musical tradition: "For Sun Ra, the oral tradition is no Glorious Heritage; it's merely the songs slaves were allowed to sing in the concentration-camp universe of 18th C America."[187] The true insectile thinker knows that all songs are tracks, just as the true postmodernist knows that all books are texts.

Thus the form of techno is itself a kind of hacking, even in the case of trance techno, which is so traditional in other ways (such as its regular beat and emphasis on melody). The same can be said of graffiti, whether wildstyle or not. Even graffiti painted in a mainstream style can be powerfully disassembling because of its context. Graffiti makes authorship and ownership problematic in the same ways that techno music does – by blurring the boundaries that define the work of a single artist.

In painting on private property, graffiti pits itself against many powerful institutions of established order, including the law.[188] This is why

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[186] For example, the border between songs is always audible on rock radio stations. This is not true for techno.

[187] Eshun, More Brilliant, 155.

[188] Techno music often finds itself in a parallel position with regard to copyright infringement.

graffiti is done at night, in secret, by bands of young men working together like guerilla warriors. In order to maintain disassembly in the face of such entrenched systems of assembly, graffiti writers turn to the established symbols of punk resistance. Thus graffiti culture sees itself as "high-tech," "postapocalyptic," and "military."

V. Entering Surrealism

Although it is easier see the intransitive war operating in cultural or aesthetic fields, it is becoming clear that its effects can also be felt in the material world. The funktionalist aesthetic of techno music is connected to real life copyright issues, just as the guerilla tactics of graffiti are connected to real life issues of free speech and crime. The CCRU describe the disassembly of insectile futurism as a double-edged sword, with two separate effects:

> NEO-FUTURISM tracks a double process: - (i) where the operational political, economic, and sociological codes of universalized humanity contract - to the point where, condemned to endlessly circulate in an interminable statistical survey, they finally collapse into a black hole where meaningless signs reduplicate themselves. This is the secondary process. The humanities in flames. (ii) The primary process: where the abstract, generic value of human intelligence migrates beyond the madreporic core of an organism regulated by the negative feedback of these archaic codes - becoming increasingly artificial and synthetic at intense speeds, converging in on a future in which it has already been rewired. Here, the "medium is the message": a viral mechanism accelerating the replication of more of itself. Runaway capitalism; anarchic, "headless" self-organization. Invasion from the future.[189]

In this quotation, the distinction between cultural and material transformation is made strikingly clear – so clear, in fact, that different

[189] Steve Metcalf, "Killing Time/Strife Kolony/NeoFuturism," in Abstract Culture #2 <http://www.ccru.demon.co.uk/swarm2/2_killing.htm>.

outcomes are expected for each. Cultural transformation will apparently lead to a black hole of meaninglessness, whereas material transformation will be saved from such a fate by organization imposed on it from the future. This distinction may be true if “culture” refers to a kind of interaction that can only exist with humanity in its present form. In that case, if the form of humanity changes, culture will not only change but disappear. But “culture” can be more broadly interpreted to mean the ongoing significance of the material world. In that case, culture will transform alongside humanity, because culture and humanity are inseparable.

As for the “invasion from the future,” this is really just another way of talking about spontaneous (“headless”) self-organization. According to recent studies in nonlinear dynamics, the “natural” state of matter is not necessarily one of utter dispersion and formlessness. Any trend towards disassembly is therefore just a trend, and it will eventually be countered by spontaneous reassembly. This applies to the material world as well as to the cultural world, as I will illustrate. If the death of rave is the birth of jungle, then the death of the human may also be a kind of birth.

So far, I have shown that the process of cultural transformation is a kind of intransitive war, and that this war is not limited to the realm of aesthetics. But so far, even my “real world” examples of war have been cultural; copyright, free speech, and crime are all social concepts. I have not yet shown how the war can manifest itself on a truly material level.[190] I have mentioned the death of the author in terms of work of art, but now it is time

[190] This still does not refer a "real" war of nations and armies. The intransitive war is more distributed and complex than a real war, even as it appears in the material world.

to discuss the death of the actual author – the end of human subjectivity. I have given examples of wildstyle culture, but now it is time to imagine wildstyle reality.

Incarnating the Text

Many people have pointed out the important distinction that must be made between informational and material goods. Hakim Bey criticizes a modern proponent of neo-gnosticism:

> He forgets that one cannot *eat* "information." "Real wealth" can never become immaterial until humanity achieves the final etherealization of downloaded consciousness. Information in the form of culture can be called wealth metaphorically because it is useful and desirable – but it can never be wealth in precisely the same basic way that oysters and cream, or wheat and water, are wealth *in themselves.* Information is always only information about some thing. Like money, information is not the thing itself.... In effect we've had an "information economy" ever since we invented money. But we still haven't learned to digest copper.[191]

Bey's point is an important one, but the distinction between information and "real" wealth is not actually so clear. Given our current bodies, it is true that some goods are more directly usable than others. But even wheat requires processing before it can be digested, and all foods require particular physical contexts in order to be eaten. What makes water so valuable is that its context is almost universal, whereas the context for American currency is quite limited.[192] Nevertheless, all forms of wealth do depend on context. If we could one day manufacture water from scratch, Bey's distinction would become meaningless, because information and water will be interchangeable. In the mean time we are already eating information,

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[191] Hakim Bey, "The Information War," in Dixon and Cassidy, 5.

[192] This is not the geographic boundary of the United States. Rather, dollars are only useful when they can be traded for other goods. If we deplete our natural resources, dollars will become worthless.

in that most of our foods are heavily processed. I do not want to imply that we can afford to mess about with our environment as we do. We are nowhere near being able to create water or food to sustain us if we use up the natural resources of the plant. But the distinction between information and material reality is not as clear as might be imagined.[193]

As I showed in the first section of this text, electronics machines are simultaneously material – in that they operate according to the laws of physics – and conceptual – in that they operate according to the rules of logic and math. Electronics may be said to manipulate both electrons and ideas. More complex electronics manipulate text, sound, and video. In fact, electronic systems increasingly manipulate "real" things. The Federal Reserve system operates on money, the telephone system operates on voices, and the traffic light system operates on cars.[194] Electronics maps structures from different levels onto one another, so that a certain configuration of electrons may be equivalent to several million dollars. No human "interpretation" is necessary to transform the electronic representation of money into actual cash; the bank machines do it by themselves. Similarly, no human "interpreter" transforms the magnetic tape in a videocassette into imagery on a television screen. The video system performs this operation by itself. In the presence of standardized technology, the distinction between signal and image becomes irrelevant.

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[193] "The boundary between science fiction and social reality is an optical illusion" (Haraway, 149).

[194] The example of cars is less clear than the other two, because in between the traffic light and the car there is still a human driver. But to the extent that drivers obey traffic lights, the traffic light system is indeed a machine for manipulating cars.

This is the same distinction that separates speech from action. We now live in a world where giving a command to a computer can trigger real physical events, from printing a document to guiding an aircraft remotely. This raises all sorts of questions about freedom of speech.[195] For example, there have been many recent debates on whether computer code is protected by the First Amendment. A computer virus is in fact nothing more than transcribed speech – yet it does real harm.

The question of free speech is crucial in Julian Dibbell's article, "A Rape in Cyberspace," which describes events that took place in a virtual online community called LambdaMOO.[196] A MOO is a form of virtual reality in which the world is entirely constructed out of words – there is no audio or video. Thus typing on a MOO is both speech and action. In the events described by Dibbell, one person on the MOO virtually raped several others. Afterwards, it was unclear how to conceptualize and deal with this crime, if it was indeed a crime. Since people take on "characters" on the MOO, the rape could be seen as part of a consensual endeavor in storytelling. Or it could be seen as a kind of obscene phone call, since all dialogue on a MOO takes place over telecommunication lines; this would make it a crime, but a far less serious one than actual rape.[197]

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[195] It raises other sorts of issues as well. For example, the Ccru made much out the Y2K bug, which was a small inaccuracy in coding which eventually threatened to have tremendous real-world effects. "Though entirely semiotic, it already amounts to the most expensive accident in history." The Y2K bug therefore represents another case in which "the actual is infiltrated by the virtual" (CCRU, "Y2k+ datastream 1," in Nettime archive, Dec. 1999 <http://www.nettime.org/nettime.w3archive/199912/msg00115.html>).

[196] Mary Dery, Flame Wars, 256. "MOO" is "MUD, object-oriented," and "MUD" is "Multi-User Dimension" or similar.

[197] No one argued that it should be prosecuted as an actual rape, but what if such events took place in a virtual reality system that included both audio and video data? What if VR could even transmit the

Computers only make clear what should already be understood: that speech is neither safe nor harmless. As Deleuze and Guattari say, “Language is made not to be believed but to be obeyed.” In many cases, acts of speech can have instantaneous “real world” effects without the aid of technology. For example, “the transformation of the accused into a convict is a pure instantaneous act or incorporeal attribute that is the expressed of the judge’s sentence,” because “there is no intervening effect between the speech of the judge and the transformation of the accused into a convict.”[198]

Thus the “meaning” of a text is constituted by its effects on the physical world. What technology does, so to speak, is endow text with a greater power to act independently. Just as human police officers bridge the gap between written law and enforced behavior, electronics has the capacity to map the structure of computer programs onto physical reality. And if these computer programs were created by other programs, and those programs by yet others, then human agency has entirely left the picture.

Agency must then be located in the material structure that actualizes the text. One journalist writes: “For Rammellzee, graffiti was nothing less than a return to a universal language capable of restructuring society from the electromagnetic level; in the language of computer code at least, where symbols take on pseudo-magical powers of action, his prophecy has come true.”[199]

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sensation of touch? Is it harassment when someone pokes their arm into empty space and a thousand miles away your own technology responds by nudging you?

[198] Deleuze and Guattari, 80-1 and footnote. An "intervening" effect would be like the driver in the example of the traffic light system given above.

[199] Ben Williams, "Links to the Future,” in The Village Voice 28 July 1999 <http://www.villagevoice.com/columns/9930/williams.shtml>.

The Theater of Cruelty

Paul Miller, also known as DJ Spooky, writes:

> The Afro-Futurism zone is a place where the issues that have come to be defined as core aspects of African-American ethnicity ... disappeared, replaced by a zone of electromagnetic interactions.[200]

Systems that are supposedly "foreign" to one another can interact because on some level they are not foreign. For example, by putting "SF and cyberpunk writers on the same level as post-structuralist thinkers,"[201] the CCRU makes it possible to bring these systems together in an intransitive war. In this example, it is easy to see the level on which the two systems are not really foreign to one another: they are both written texts. It might be harder to relate a science fiction movie to a philosophical treatise, but this can also be done. It merely requires a code that can be used to translate concepts back and forth[202]. In the terminology of Deleuze and Guattari, it requires bringing concepts onto a plane of consistency – only then can they wage war on one another.

The sampler is a machine that translates distinct foreign sounds into a common code. "The sampler is the universal instrument, the instrument that makes all other instruments."[203] The sampler brings the sound, via analog or digital translation, onto a plane of consistency, where it can be warped, sampled, played backwards, mixed, or otherwise messed with. It actualizes

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[200] Paul Miller, "Afro-Futurism: A Statement of Intentions – Outside In, Inside Out" at Afrofuturism <http://www.afrofuturism.net/Text/Manifestos/Miller01.html>.
[201] Reynolds, "renegade academia: CCRU."
[202] In other words, what is required is a level of operation on which units exist that compose both higher-level systems – a lowest common denominator of sorts. For example, it is difficult to relate an apple and the color blue because they seem to be composed of different units. However, the words "apple" and "blue" can be related because they are both made of letters, and the ideas "apple" and "blue" can be related because they are both made of neurons (or "thought elements" if you like).
[203] Eshun, More Brilliant, 057.

the postmodern slogan that "everything is a text." To put it another way: in an intransitive war, everything is a tech. Or, as Eshun says: "There is nothing that funk will not render funkable."[204]

Speed is one such code, with the ability to bring foreign systems together on a plane of consistency. Marinetti writes: "Time and space died yesterday. We are already living in the absolute, since we have already created eternal, omnipresent speed."[205] The fantasy of speed is the disassembly of space. At a high enough speed, "unnatural deformities" occur: space is warped and distant things become adjacent.[206] Forest, city, and desert blur together on the jet plane. However, this is not a real material merging. It is the traveler's image of forest and city that blur together in a high-speed journey, while the actual physical locations keep their distance.

The code which scientists use to design technology is far more powerful than the code of speed. I will call this code "materiality." Materiality allows *all physical objects* to be brought into relation with one another – and for a materialist, this implies that literally *everything* becomes accessible. All distinctions between types of object are erased at the level of materiality. This is what allows a bullet to destroy a person, and a synthetic heart to keep a person alive. In both cases, there is something eerie about the interface between machine and human; it is deeply uncanny that a small pellet of metal can end or extend human subjectivity. This eerie feeling comes from the fact that we think of people and objects as inhabiting parallel planes of existence, such that they will never come into direct contact. Materiality

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[204] Ibid., 148.
[205] Marinetti.
[206] Reynolds, Generation Ecstasy, 135.

“cuts across” those parallel planes and allows for the direct interaction of all systems.[207]

Taken far enough, materialist science can disassemble and interface literally any systems. In an intransitive war, “no objects, spaces or bodies are sacred in themselves; any component can be interfaced with any other if the proper standard, the proper code, can be constructed for processing signals in a common language.” This is nothing less than “the translation of the world into a problem of coding.”[208] Every science is thus an attempt to access the code on which human agency can interface with material reality. The code of biology can interface blood and vaccine, for example, but it cannot interface atoms to produce molecular change. To do that requires the code of chemistry, which operates at a lower level. Atomic physics operates at an even lower level, and so on. The science of nanotechnology is a quest for greater control over the molecular code. At the moment, access to the molecular code is very limited, although it is the sub-molecular atomic code that gave us the nuclear bomb. This quest for the ultimate code never ends. Unless we reach some kind of “bottom” or “elemental” level of physics, there will always be a lower level of code to seek, and the lower the code, the more fundamental the power.[209]

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[207] This is also the sense in which the machinic phylum "cuts across" the planes of stratification. See Manuel de Landa, "Inorganic Life,” in Jonathan Crary and Sanford Kwinter, eds., Incorporations (New York City: Zone Books, 1992), 129-167. Of course, metaphysics is another plane on which humans and objects to can be said to interact. Accordingly, we could say that a bullet is a pellet of death, a destroyer of beings, a metaphysically deadly entity. Either explanation works to explain the interaction of human and bullet, but science prefers materiality to metaphysics, and this is what has allowed us to create modern technology.

[208] Haraway, 164.

[209] The four elements of earth, air, fire and water were once thought to be elemental. Later, the name "elements" was given to molecules: helium, hydrogen, and so on. The word "atom" was another

The common code of materiality is terrifying, because it undermines our human-centered worldview. We vehemently resist the idea that purely physical systems such as cars, bullets, or viruses, can destroy our lives. Sometimes we may even resent seatbelts, walls, and antidotes, although they are meant to protect us, because they force us to acknowledge the power held by the material world over our lived experience. Everything that humans love – every person, every idea, and every culture – can be destroyed by events on the material level. This is why radical disassembly is often called "cruelty."

Cruelty, in this sense, is the power that low levels of organization have over higher ones. The lower the level, the more cruel its power. A tiny virus can destroy a whole human civilization by attacking it at the biological level, but a nuclear bomb is far crueler because it disassembles at a much lower level. The organs of the human body have power over us too, because they can malfunction and cause death.[210] But cruelty can also be a good thing. For example, once the human voice has been translated into the code of grooves on a record, it can be scratched, twisted, and molecularized.[211] To treat the human voice as a maleable sound wave is cruel, but it makes for good music. Similarly, the materiality of the body is what allows us to treat it medically and aesthetically. It is cruel to alter someone's brain with neuro-chemicals, but doing so can cure many debilitating diseases. As Eshun writes, "the moment concepts are materialized, they become plastic."[212] The soundwave

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attempt to name the lowest level of code, before we had encountered subatomic particles. Now, with words like "quark" and "superstring," scientists no longer claim to have found the bottom level.

[210] Notice that it is only a "malfunction" from the point of the view of the whole person. From another perspective, the swelling of the appendix (for example) could be seen as a feature rather than a bug.

[211] Eshun, More Brilliant, 015.

[212] Ibid., 132.

exerts control over the voice. The body exerts control over the mind. In general, every system is vulnerable to events that concern the units that compose it.

This notion of cruelty has nothing to do with evil, or even necessarily with pain. Antonin Artaud's "Theater of Cruelty" is cruel not because it is mean but because it accesses the audience on a visceral, funktionalist level. What Artaud is really talking about is nothing more than very powerful theater. In boring theater, the audience member remains unaffected – the border of the skin is not crossed. Artaud's theater, in contrast, is meant to disrespect all personal boundaries and directly invade the audience – actually to wage (intransitive) war on them. This does not mean that the audience will leave physically wounded, only that their internal structures will have been rearranged. Thus, as the Futurists say, good art "can only be violence, cruelty, injustice."[213]

Cruelty is often linked to the "inhuman," but "unhuman" would be a better word because it lacks the connotation of evil. The "inhuman" simply refers to treating the human as a tech. For example: "Treating sampled voices as instruments or sources of noise destroy[s] the idea of the voice as an expression of human subjectivity."[214] Techno producers aim to operate on the human body at the material level – like surgeons.

> The inhuman gets a contact high from cruelty. It lingers over organs with a loving sense of detail, loses itself in the rapture of dissection, the joy of getting to work on a warm body.[215]

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[213] Marinetti.
[214] Reynolds, Generation Ecstasy, 363.
[215] Eshun, More Brilliant, 046.

The scientists who implement these funktionalist technologies are not "natural philosophers" but "doctors" – the difference is the connotation of getting down and dirty with human tech, body tech, and reality tech. The more access these scientists gain to the codes of materialism – codes like DNA, biochemical reactions, and the rest of what is called the *machinic phylum* – the more power they hold over the world.[216] Thus we are indeed "entering an age of 'cruel miracles.'"[217]

Wildstyle Reality Tech

Our technologies, which are based on the scientific code of materiality, grow more and more powerful every day. The intransitive war that has been taking place on this planet for millions of years is speeding up. The morphological transformations shaped by evolution are incredibly slow by comparison. There are three ways to look at the increasingly rapid transformations caused by technology. First, the body begins to swarm. Second, the world around us begins to swarm. Third, the mind itself begins to swarm.

Techno is obsessed with body tech. Reynolds likens audio sampling to the creation of Frankenstein's monster, and writes that certain music "feels like it's designed for the asymmetrical dancing of creatures with an odd number of limbs."[218] An internet post imagines the DJ transformed by the art of spinning:

> I figure in the future that the DJs will have extremely developed fingertips, because they're super-sensitive, like lily pads, like frogs. Their heads will be fused to their necks, and I think in about twenty

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[216] See de Landa, "Inorganic Life."
[217] Dyens.
[218] Reynolds, Generation Ecstasy, 045, 005, 052, 186.

> years time their legs may well have withered away, 'cause they never dance.[219]

This is a functionalist transformation in which the body is "augmented" according to certain use vectors, such as the ability to spin and scratch records. Likewise, if techno dancing involves "bodies broken down into separate components," then this disassembly is employed in the service of "recalibrating your body." There is still the assumption of some kind of agent who can determine the use vectors according to which the body will be recalibrated. The artist Stelarc, who believes that the structure of the human body is obsolete, seems to go back and forth between straight functionalism and a more funktionalist approach. In some projects he aims to alter the body according to obvious guidelines:

> Now, do we accept the evolutionary status quo? Do we accept the arbitrary design of the body? Or do we evaluate the design of the body, and come up with a strategy of reconstructing, redesigning, and rewiring the body? For example, can the body have a wired internal surveillance system? Can the body have an augmented sensory experience?[220]

Here the body is a tool in relation to a transcendent agency that can "evaluate" how well the body functions and "redesign" it accordingly. In other cases, Stelarc's body modifications are more artistic and explorational, and the artist himself may not have any utilitarian "purpose" in mind. It might be argued that in these cases the body is simply "changing" on its own rather than "being changed."

Another partly funktionalist example of body tech is Rammellzee's "Gasholeer," which is "a 148-pound gadgetry-encrusted exoskeleton inspired

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[219] Gutmair.

[220] Stelarc, quoted in Tilman Baumgärtel, "Art on the Internet," in Bosma et al., 234.

by an android he painted on a subway train in 1981. Four years in the making, Rammellzee's exuberantly low-tech costume bristles with rocket launchers, nozzles that gush gouts of flame, and an all-important sound system"[221] The Gasholeer is funktionalist in that it does not have any clear purpose beyond its own complex structure. However, like the art projects of Stelarc, the Gasholeer is donned for a time and then removed. The artist and the work of art together still form a "fascistized mermaid." This is true even with cosmetic surgery, laser eye surgery, hip replacements, pacemakers, tattoos, piercings, and numerous other permanent body modifications, to the extent that human agency is not affected. With nanotechnology, we may one day be able to make ourselves even more wildstyle bodies: abstract architectural projects that could include steel and stucco, moving parts, mirrors, video screens, holograms, patterns and optical illusions. But the "designer" body is still designed by *someone.* The agent and the tool still retain their separate identities. At some point, this final border may be crossed. When two friends can switch bodies at will, one can say that they keep their "real" identities intact, but when it becomes possible to switch both bodies and personalities, then "real" identity becomes a thing of the past.

The same question of agency can be asked in the context of world tech. There is a beautiful passage in which Eshun describes how the mixing board allows the DJ to sculpt the musical world like clay:

> In the Upsetter's conceptechnics, the mixing desk is a mental machine, a mind<>machine interface. Perry diagrams the neurocircuitry of the Soundcraft mixing board, its thought flow: 'I put my mind into the machine and the machine performs reality. Invisible thoughtwaves, you put them into the machine by sending

[221] Mary Dery, Flame Wars, 183-5.

> them through the controls and the knobs or you jack it into the jackpanel.' It is a medium that forms reality, violently bending the environment, massaging it.[222]

It is easy to imagine a virtual reality system controlled by an interface that resembled a mixing board. With fully realized nanotechnology, the same kind of plastic control could be applied to reality itself. Today we can adjust the temperature of a building by twisting a knob because of complex heating systems. With nanotechnology, the temperature could be controlled directly by trillions of microscopic airborne machines. Nanotechnology would also allow us to install knobs that would alter the color of the walls, the shape and size of the rooms, the texture of objects, and – in theory – every material aspect of reality.

The ultimate goal of this kind of technology is to turn humans into gods by granting us omnipotence over the physical world. With nanotech mixing boards installed in our brains, we would become "world-jockeys" capable of remixing reality. Just as the DJ uses the code of soundwaves to scratch the human voice, the world-jockey uses the code of materiality to scratch the human body. The famous "transporter beam" in Star Trek is this kind of material scratch, but the possibilities are really limitless and reality tech need not be so functionalist. The nanotech world can be as wildstyle as the world-jockey can imagine.

So here we are again at the question of agency: there is one very large problem in the vision of nanotechnology I have just described, and that is that *the materiality of the mind* has been overlooked. In a world of nanotechnology, the brain itself is also accessible and plastic. Two world-jockeys remixing

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[222] Eshun, More Brilliant, 062.

reality in tandem can also remix each other's minds. Indeed, any mind can remix itself or any another mind into or out of existence. The existence of agents becomes a knob on an infinite number of mixing boards controlled by an infinite number of agents. The cycle goes on forever. Punks assemble and disassemble in the warzone. Bodies disintegrate, reconstitute, and transform. All structures, including those that give rise to consciousness, are malleable.

Thus we have arrived at surrealism, disorientation, the world gone crazy. Surrealism can be either pleasurable or painful, either lightside or darkside, depending on one's stake in the outcome. Eshun describes the darkside version as it appears in the tradition of "neo-gothic" hiphop:

> ... New York as this infernal audioscape where sound is detached from sense, and kind of roams around. And you suddenly realize why it is that hip hop producers and artists ... talk so much about devils and demons and angels, why they talk in these feudal and apocalyptic terms. And the reason is that as soon as you detach sounds from source you start to attribute invisible sounds not to effects and not to instruments but to invisible demons, to inanimate objects, to inanimate machines. You start to get into the weird cross between an inorganic life and a pantheistic life.[223]

Here it is not only the body that has been distributed but also the mind. Consciousness is a liquid always in flux. Inanimate objects spark to life, and people fragment into distributed lifeless swarms. Life itself becomes quantitative. This landscape is "infernal" because God the Assembler is dead, but as demons ourselves we may feel quite at home in this inferno. Humans crave surrealism and we loathe boredom. It is just that at some point the line is crossed and wildstyle goes too far. Like children at a carnival, we switch from laughter to tears when we become overwhelmed. According to some

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[223] Eshun, "abducted by audio," in Abstract Culture #3 <http://www.ccru.demon.co.uk/swarm3/3_abducted.htm>. First presented at Datableed: Virtual Futures 1996, University of Warwick.

people, we have already passed this point with postmodern technology. Others look forward to a “singularity” in the future, after which everything will be different. Technology promises nothing less than the incarnation of dreams. It is indeed both terrifying and exhilarating.

VII. Remixology

We are already living in surrealism. Human life is born out of the inorganic and it returns to the inorganic when it dies. While we live, we have the power to act, and our actions can have grand repercussions. At the same time, we are fragile and easily influenced creatures. Sometimes it feels as if the human species holds the future of the world in its hands. At other times, the human species seems to be nothing more than a tiny race of proud insects crawling on the face of a vast planet. There are spirits all around us: animals and plants, viruses and bacteria, storms and ecosystems, computers and computer networks. The world is animate. We attach meaning to unpredictable events only after the fact, as we attempt to reorient ourselves. Agency is already liquid.[224]

We like to pretend that we are perfect punks. Good health tricks us into forgetting how vulnerable our bodies are. Social stability makes us think we have solid identities. Sanity is the ability ignore the monsters under the bed. And yet, we know better. The truth is that we are all mongrels. There is no such thing as transcendent agency. Our minds, like our bodies, are shaped

[224] I pointed out in Section V that the warzone, if it is imagined as a real war, has no place for children or indeed for any kind of tenderness. Once could also apply this argument to ecosystems in general, but the truth is that we cannot protect our children from the intransitive war. As much as it saddens us, children die, and tenderness – for all its great value – is a fleeting moment of peace in the ongoing war.

by the context in which we are formed – by the intransitive war. Feedback loops like the one described in the previous section are already in effect. Our desires affect reality, and reality affects our desires: the desire to take drugs is altered by taking drugs; the desire to have sex is altered by having sex; the society that desired industrialization is not the society which has become industrialized. The subject is always transformed by the actualization of its own wishes. This does not mean that agency is an illusion; it only means that agency is part of the war. It still makes sense to give people names, as long as we understand that these names do not refer to static structures but to shifting and mobile systems.

Universal War

God is dead, but there is order in the universe. Entropy is understood to be a natural physical process, but the somehow universe has not dissolve into an infinitely disassembled soup. Until recently, there was no way to explain the existence of order without recourse to some kind of prime mover, a transcendent agent who assembles the universe. The study of nonlinear dynamics has given us a new model by which to understand order and chaos.[225] In this view, order and chaos, or assembly and disassembly, are both intrinsic to matter itself. Spontaneous self-assembly is therefore as natural a process as entropy. In fact, it becomes scientifically meaningful to say that these "opposing" processes are but two sides of the same coin. The difference between assembly and disassembly is always relative to a given system. Entropy is the death of one structure and the birth of another. The

[225] For more on nonlinear dynamics than can be found in this section, see the works of Manuel de Landa listed in the bibliography.

evaporation and distribution of a liquid is also the spontaneous self-assembly of a gas. It is perfectly valid to describe evaporation as the victory of a gaseous warmachine. Even a gas can be a punk.

Thus nanotechnology does not by itself suggest greater assembly or greater disassembly. Our ability to control reality at the molecular level does not imply either that the world will be dispersed into a cloud of molecules or that a rigid grid of control will be imposed on it. Of course, either one of these outcomes is indeed possible. With nuclear war, we already have the capacity to evaporate whole cities. A nanotech virus or "goo" could be even more efficiently destructive. One can imagine a regime of nanotech molecules that police other molecules and break them down. This is certainly a terrifying prospect, but it is not a vision of pure disassembly or "swarming," because (like the fascist punks described earlier) this nanotech goo does not disassemble itself. Instead, it imposes its own structure on reality. If these tiny warmachines ever stopped being punks and surrendered their own structure, nothing would prevent spontaneous reassembly. In other words, there is no such thing as pure chaos; there is only enforced chaos (which is really quite ordered) and anarchy – which will always spontaneously reassembly itself.

I have painted a picture of the universe as a vast intransitive war, full of systems spontaneously assembling and disassembly themselves and each other. This is not an effect of science; it is a discovery of science. The body, for example, is liquid with or without technology. While it may appear to be stable on a scale of days or months, the human body is made out of minerals forged in stars; it is shaped by millions of years of natural selection; and it self-assembles itself out of food and oxygen over a lifetime. Human

technology does not produce the wildstyle engine that creates and uncreates all structures; it merely bends that engine to the human will.[226]

It is by rejecting the human that futurists like Eshun can transcend social power structures and reclaim the symbols of disassembly, including "darkness" and even "death." But if we accept what Rammellzee says – that "deaths are only CHANGE" – then are we not stranded without a system of values? Are we not suspended in that moment of meaninglessness, after the old use vectors have been discarded but before the new ones have been installed? Indeed, this is where we would find ourselves if we had no stake in the outcome.

What You Will

From a disinterested perspective, there is no difference between transformation and death. Value comes from having a stake in the issue; indeed, this is almost a tautology. The difference between liberation and annihilation is therefore determined by one's perspective.[227] The cyborg will liberate if it transforms humanity as much as possible while leaving *that which we truly value* intact. In other words, cyborg transformation must obey certain rules of continuity – precisely those that define what is good about humanity. The cyborg will annihilate if it ventures outside these rules. Of course, what the rules are depends on one's perspective. We could even say that a perspective is defined by the kind of continuity it values. Thus Marinetti

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[226] In de Landa's terms: technology does not create the machinic phylum, it simply "tracks" it. See de Landa, War in the Age of Intelligent Machines (New York: Swerve Editions, 1991).

[227] For example, when chemical reactions take place in test tubes, humans do not call some of the reactions annihilating and others liberating *unless* these reactions are relevant to human life, for example if one reaction produces a deadly poison and another its antidote.

flirted with the absurd, but even he could not truly dwell there.[228] To dwell in the absurd is to do away with all rules of continuity, to surrender all desire and all perspective, to float aimlessly in a void of nihilism.

Human beings cannot do this – except by dying – because we have agency. Agency implies perspective, and perspective implies that value is placed on certain rules of continuity, on certain kinds of structure. Humans cannot surrender their perspective. Even the insane have their own rules of continuity. This is not to say that agency will necessarily retain agency its present form in the future. As discussed earlier, agency may become more liquid, or fragment, or disperse. According to different perspectives, the threshold to annihilation will appear in difference places. For some, human life is worthless once it exits the "state of nature." But for most of us, the human unit would have to be far more radically mongrelized for us to become disinterested in its plight. In fact, it would probably have to become literally unrecognizable, since we feel a certain respect even for dead bodies.

Every transformation works according to certain rules of continuity, but systems have agency when they can work to impose their own laws of continuity on the rest of the world. It is this property, that of self-determination, which stirs human sympathy. That is why we get scared when machines become self-determining, and even more scared when humans are externally determined. But these are not real paradoxes. As soon as we stop thinking of agency as static and transcendent, all of this makes perfect sense. If agency is a kind of structure, then it can be transformed as easily as it

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[228] "Let us feed the unknown, not from despair, but simply to enrich the unfathomable reservoirs of the Absurd." (Marinetti).

transforms other structures. This does not mean that we cannot place value on certain kinds of structure.

Andreas Huyssen asks:

> How can we reframe the problems of ideology critique and subjectivity, falling neither for the armored ego of Kant's epistemological subject nor for the schizosubjectivity without identity, the free flow of libidinal energies proposed by Deleuze and Guattari?[229]

The answer is that an agent is a pattern that arises out of the swarm through spontaneous self-assembly and eventually dissolves back into it. In material terms, an agent is a peculiar kind of *soliton.* A soliton is a pattern that holds its own shape for some time. Manuel de Landa gives several examples of solitons on different scales: tsunamis in the ocean, the Red Eye on Jupiter, and electronic signals in the human nervous system.[230] What makes an agent distinct, however, is that during its lifetime its own internal structure determines how it interacts with the world. A soliton in the ocean can hold its shape for thousands of miles, but it is only ever a simple wave. A human being maintains its structure for about eighty years – which is far less than the Red Eye storm on Jupiter – but the human being has a centralized nervous system that allows it to impose its will on the rest of the world. Thus it is not only a soliton, but also a punk. This does not mean that it acts independently of the wildstyle engine. Actually, the opposite is true: punks are not separate from the processes of transformation, but integral to them. An agent is one kind of structure assembled by the wildstyle engine – one class in the

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[229] Quoted in Timothy Druckrey, "Fast, Cheap and, Out of Control," in Bosma, et al., 264.
[230] de Landa, "Inorganic Life," 132-133.

machinic phylum. It just happens to be the class in which we humans have a stake.

The Art of Style

It has been suggested that we need to find a middle path between the technologies of assembly and those of disassembly: "The choice is not between some Frankenstein world and Big Brother control.... You should try to adapt technology to your individual desires."[231] Haraway's final message in her manifesto is "both building and destroying machines, identities, categories, relationships, space stories."[232] Similarly, although Eshun is right to point out that "the sampler is a mandate to recombinate,"[233] this does not mean that we should recombinate infinitely. Indeed, there is no such thing as "infinite" recombination.

An apt parallel may be found in the techno art of *remixology*. A good remix must be both different from and based on the original track. This applies equally well to the larger context of music. In order to be interesting, a song must be different from anything that has come before. But if it is too different then it will be meaningless noise. "Tracks must be fresh, but they must also reinforce and sustain tradition."[234] It is the tension between the old and the new that makes a remix meaningful.[235] The nature of this tension

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[231] Daniel C. Ust, "What is posthumanism?," in Kaspahraster <http://www.subsitu.com/kr/posthum.htm>.
[232] Haraway, 181.
[233] Eshun, More Brilliant, 123.
[234] Reynolds, Generation Ecstasy, 372.
[235] This is also true of pure electronic information. The information on a computer disk, for example, exists in the tension between the disk's actual content and the assumed default contents of a disk. In the present system, a default (black) disk is assumed to have all its bits set to 0. Any bits set to 1 therefore constitute information. But the information must be stored according to certain rules, or else it cannot be read – which is why Macintosh disks cannot be read by Windows computers and vice versa. This is

constitutes a *style.* For example, some remixologists will retain the melody and replace the rhythm, while others will retain the rhythm and replace the melody – this is a matter of taste. Those who place all their value on rhythm will see the first kind of remix as annihilation and the second kind as liberation, and those who place value only on melody will feel the opposite way. When postmodern music was first made, many people responded by saying that it simply was not music. The mode of remix was so far from their own that they saw it as annihilation. Whatever it was that they valued in music was not preserved according to these new rules.

In the moral arena, style amounts to ideology. Thus VNS Matrix is wrong to suggest that "there is no moral code in the zone."[236] What they mean is that disassembly has the potential to alter morality fundamentally – but as long as there is agency in any form, as long as there are perspectives on continuity, there will be scales of value on which particular transformations may be judged. To the extent that humans have agency, we have no choice but to operate according to certain rules of continuity – an ideological framework. We cannot avoid this any more than a musical remixologist can avoid remixing according to a certain style.

The supposed clash between the scientific and the political must therefore be reconsidered. Previously, it had seemed as if science revealed a grand perspective on human life, a perspective so grand in fact that it left no room for human values. Once we begin to realize how vast the universe is, how tiny the smallest particles are, and how vulnerable the mind and body

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also how cryptography works: by setting up secret base patterns and rules of continuity without which information cannot be read.

[236] VNS Matrix, "All New Gen," in Dixon and Cassidy, 37.

are to events taking place on these parallel levels of existence, it can indeed become difficult to maintain perspective. Science gives us windows onto vastly different perspectives of continuity in which the human does not matter at all. When a person dies, the Milky Way galaxy does not care, and neither do the subatomic particles that made up that person's body. Human life is only meaningful from a human perspective. This is why science can be morally disorienting: by showing us inhuman perspectives, it removes the aura of uniqueness from our own.

It is therefore absolutely crucial to realize that the perspectives given to us by science are just that: other perspectives. They are not escapes from perspective, and they are not more "objective" than others. To value galaxies or quarks instead of humans is not more objective or more neutral or more grand, and to value nothing at all is impossible. There is no transcendent perspective from which to judge whether human life is "really" of value; there are only different styles of remix, different ideologies, which place value on different kinds of system.

This means that "assembling" and "disassembling" futurisms are not "pure" at all. This is very important. By claiming to be purely assembling or purely disassembling, these futurisms also pretend to be non-ideological – as if it were possible to assemble without also disassembling or vice versa. As we have seen above, assembling and disassembling are two different perspectives on any given transformation. Olympian futurism pretends to be a neutrally assembling force in order to hide the fact that it is politically conservative; dreams of "pure order" mask dreams of pure masculinity and pure whiteness. At the same time, insectile futurism pretends to be a

neutrally disassembling force in order to hide the fact that it is politically radical – so radical in fact that it would grant rights to animals, plants, and eventually molecules. Thus there is no "middle path" which can be located between assembly and disassembly. All paths are middle paths; all styles of remixology involve both the old and the new. This is why discussions of how to develop technology can never be separated from ideological questions.

Institutions like Nazism, the Catholic Church, the American government, and corporate capitalism have taught many of us to fear or scorn too much assembly – like Marinetti and his companions, we enjoy spitting on tradition. Thus the "sonic futurism" of radical afrofuturists "adopts a cruel, despotic, amoral attitude towards the human species," and the cyberfeminists proclaim that "the new is created by revisiting and burning up the old."[237] Futurism in general is the attempt to cut off continuity by saying that the future will not evolve from the past but will instead come about independently and trigger itself retroactively.

Given that the Catholic Church, the American government, and corporate capitalism are still very much in power, it is obvious that the work of insectile futurism is not done. But for those of us who live in the post-60s, post-punk rock, post-postmodernist era, the need for a new vision is already visible on the horizon. This new vision is one which can scorn many traditions of the past without having to scorn them all – it can, for example, scorn white male humanism without scorning all of "humanity" in the process. A good remixologist, after all, does not scorn the original track, although she may transform it profoundly. As remixologists, we must take

[237] Eshun, More Brilliant, -005; Braidotti.

responsibility for our remixes. They must not be so conservative that the limitations of the past remain entrenched, nor so radical that we end up destroying everything we value.

I am assuming the existence of agency here, but it would be impossible for me to do otherwise. Only punks write essays and only punks read them. The question remains: what is it that we value in humanity? What do we wish to retain and not transform? This is a difficult question, but it is also the only question. If nothing else, this discussion of technology and politics should dispel the illusions that technology can be either "assembling" or "disassembling" and that one of these options might be inherently better than the other. And this does imply that we can discard many of the trappings of Enlightenment humanism while retaining a decent morality.

Ideologically, we can let go of the abstract value placed on masculinity, whiteness, lightness, cleanliness, rationality, solidity, and disembodiment, and begin to value what has been shunned: femininity, cultural complexity, darkness, dirtiness, irrationality, liquidity, and hyperembodiment. Furthermore, we can let go of the boundaries that define these binaries as oppositions. Materially, we can let go of the body in its present form and experiment with it according to our desires. We can even let go of some of the solidity of the human mind – by distributing it and by allowing it to fragment. This could be called "parahumanism," to distinguish it from "posthumanism," which always implies an evolutionary progression. As parahumanists, we can experiment as we please without losing the "human" element, as long as we respect certain rules of continuity. These rules will

allow us to track the human wherever it goes so that we may continue to value it.

Here the category of human opens up to include everything we value. In the end we may not even need to call this category “human.” All we really need to retain is a perspective. Technology vastly increases our power to remix, and with that power must come some degree of disorientation. But to recover from disorientation is the true art of the remixologist: the art of style.

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THE DARK AGES

- a play about people and machines -

a one-person show

The play was originally presented in January, 2001, as part of a Senior Thesis Project for the College of Letters, Wesleyan University, Middletown, CT. It was sponsored by Second Stage, a student theater group. Written, directed, and performed by Ben Spatz. Lighting design by Rich Orris. Scenic design by Sarah Krainin. Sound design by Pete DiGenarro. Projection design by Sasha Foppiano. Costume design by Adriana Jones. Still photography by Jim Isler.

DESIGN

A bed.
An empty playing space.
A projection screen.

SCENES:

4:00 AM		Monty 0
	2005 AD	The Kid
7:00 AM		Monty 1
	2020 AD	The Futurist
10:00 AM		Monty 2
	2050 AD	The Monitor
3:00 PM		Monty 3
	2101 AD	The General
7:00 PM		Monty 4
	2102 AD	The Swarming
11:00 PM		Monty 5

MONTY 0
the present
4:00 AM

He is on the bed while the audience enters, tossing and turning, sleeping fitfully. He is wearing a light blue t-shirt and pajama pants. When the audience is in place and the house is closed, the house lights go out.

The sound gets louder and hits a climax. Monty wakes up with a start.

The lights go to black. Monty exits darkness.

SOUND/PROJECTIONS:
Video games from Super Mario Brothers to Doom.
Science fiction movies, lots of guns and explosions.

THE KID
the future
2005 AD

He comes on talking to his mom offstage. He is wearing nothing but white briefs.

No! Cuz I don't wanna!

He turns upstage and mimes the destruction of people and buildings.

He goes off the other side of the stage and comes back with a black trenchcoat and big flashy raver pants. He puts these on and begins to feel better.

I wish life was a video game. In a video game, you can jump way up in the air, and do kicks and punches in midair, and turn around and stuff. It's so awesome. If I was in a video game, and the kids teased me again at recess, I would be like BAOW BAOW BABABABABABAOW!

He illustrates punching someone like in a video game.

And they would be like: "Oh, you're too fat, you're too fat… Oh! Ah! Ugh!"

He shows the victim being punched like in a video game and falling backwards.

Hah! Game over! Game over!

If I was in a video game, I would have all these weapons and utilities and stuff, and I'd have a grappling hook so I could like swing from buildings… I would steal my dad's car and drive it into the city, and park it somewhere and just start RUNNING through the streets like I was on a mission, like I

had to get somewhere in time. And if people got in my way I would just dodge them, and if they tried to stop me, I would be like BAOW!

He shoots someone.

Not in my way anymore. I wouldn't even look back! Cuz I have to get there in time. DUN DUN DUNAH! DUN DUN DUNAH! DUN DUN DUNAH!

He makes video game music as he runs around the stage.

You know what though? I know a secret. Wanna know what it is? It IS a video game. I swear. You can do all this stuff. I read this book, and there's a whole chapter on that people used to think it was dangerous to have everything connected to the network, so there were some things that were never connected, like, um, electricity, and… TRAFFIC LIGHTS. But then there was a lull, which is a big time when nothing happens, and they were like, oh I guess it's safe now... And now everything's connected! You can do ANYTHING. You just have to start playing around. I started playing like a LONG time ago, like a YEAR or something. I got all these books out of the library, and it was like learning from books of magic. And becoming a master. And now I'm a MASTER!

Know what I did? When I was first playing around, like a year ago, I figurd out how to go into the school computer and delete the file that has all the grades. First I was just gonna delete my grade, cuz I got a bad grade, but then I was looking in the manual, and it was like: to delete file, type "delete file." And I was like: that is so easy! When you're a MASTER. And the file was just there in front of me, and I was like: should I delete it, or should I not delete it, cuz you know, you're not supposed to do that... But then it was like I could hear all the teachers, and they were saying: oh no, please don't delete the file, please don't delete it, we worked so hard on the grading… And I was like: well, in that case... CLICK! PKSH!

He rips down a CD hanging from the flies and stomps on it.

But that wasn't a big deal. I mean I was just a kid then, it was easy stuff. It was stupid. But no one ever figured out who did it. It was a total secret. But it wasn't a big deal.

Wanna see something really big? Do you? Well... Watch the news tonight. I'm gonna do it. Today. I am. I have to, cuz I told the kids at school I would. Cuz today at recess, there was this REALLY big guy, and he was teasing me, and he knocked me down. And I wanted to get up and be like BAOW! BABABABAOW! But I couldn't, so instead I just said: Watch the news tonight! And he was like: Why, why should I watch the news, what's gonna happen, uhhhh? And I was like: Just WATCH it, okay! And then I didn't say anything else, I just stared back at all of them and thought about how STUPID they all are.

And when my dad picked me up after school, he could tell something was different about me. He could see it in my eyes. And he was like: Are you okay, son? And I was like: Yeah, I'm FINE. But all the way home I was secretly watching the traffic lights change.

He sits down.

When mom and dad watch the news tonight, I bet mom will cry. Dad might cry too. I've never seen him cry, but he might. When he sees all the crashes… I hope they have video of it from all over the city. PKSH! CHKSH! And the sirens… And the police won't be able to drive either, or the ambulances… Oh! I bet maybe the ambulances will get into crashes too! I've never seen an ambulance crash before!

He shows an ambulance getting into an accident and exploding.

That would be so awesome. My life is so boring!

If this works, I'm gonna do something even bigger. Like Y2K! I mean Y2K was supposed to be this big thing, with like planes falling and ATMs not working and no food… And nothing happened! I was a little kid back then so I was scared, but I wouldn't be scared now. Now I want it to happen. I'm gonna make it happen. Soon. I'm gonna write a virus that will shut everything down for a day, or a week, or a month!

That would be awesome. Everyone would be out fighting for food and scavenging and stealing and stuff. And I would have to go out… into the warzone. And get food for my family. I would do that. I would take care of mom and dad in an emergency. BUT THERE'S NEVER AN EMERGENCY! This would be huge… I'd have to go out and get food for us to live on…

He pretends to go out into the warzone.

Excuse me, I need that for my family. What? I didn't hear you? What? What?

He shoots the person and takes the food.

Oh, and here's a present, like a GRENADE!

He throws a grenade over his shoulder and shows it exploding.

And no one would be able to get money out of the ATMs, except me. Cuz I could hack into them. And I'd be like: Excuse me, excuse me…

He goes up to an ATM and hacks into it and gets out lots of money.

And someone else would try to get the money, and I'd be like: No, this money is mine. No, no, what? No, what? No, BANG!

He shoots someone five times. Then he grins at the audience.

Man, that would be so awesome! It would be like being in a movie! RRGH! Well… Watch the news tonight, okay? Cuz I'm gonna do it. I am. Just watch it!

SOUND/PROJECTIONS:
Cars honking, traffic lights and signs, cars driving at night, hospitals. Kids in a playground, gunfire, people screaming and yelling and crying. Explosions and sirens, news reports, documentary narration.

MONTY 1
the present
7:00 AM

He is sitting up in bed, his had face down in the pillow.

I can't sleep… It's like some kind of headache...

There was a car crash outside my window yesterday. I heard this thump, and I'd never heard it before, but I knew what it was anyway. So I called 911 and I went outside and stood there in the rain in pajamas. These two cars had just come together in the front, and there was glass and metal on the ground... And there was a woman in one of the cars, and she was yelling... And she was saying: "My legs, please, my legs, please God, please someone help me, I can't feel my legs..." I'd rather die than lose my legs. But there was nothing I could do, so I just stood there and looked at her sympathetically. And there was a cop right there and he couldn't do anything either.

I mean it's not like this is rare or anything. This happens ALL THE TIME. People are killed and paralyzed all the time in car accidents, and we don't do anything about it. I mean there's nothing we can do, right? We can't get rid of cars, you know? We need them! We NEED them! So we just let them crash, and then after they crash we send other cars to clean it up. Like the cop who was just standing there, and then the ambulances to take away the people, and then the fire trucks to make sure the cars aren't going to explode, and then the tow trucks came and took away the cars, and then this clean-up truck came and cleaned up the glass and metal and whatever else was on the ground, and then the cop left… And it was like nothing had happened, and all the cars were just going ZOOM through the intersection, and they had no idea. And I wanted to go out there and yell at them and tell them to SLOW THE FUCK DOWN because there was an accident RIGHT THERE. But they wouldn't be able to hear me anyway...

And now I've got this IMAGE in my head, and that woman's voice… And I've got these other images too, and I don't even know what they're from. Like, I see these people lined up looking for food because all the stores are closed because of flooding and heat waves and pollution and nuclear meltdown and war and I don't know... So I'm just lying here in bed, except...

Except... Did you ever feel like when you look over the side of your bed you're actually looking over the side of a huge skyscraper, and you can see all the people hundreds and hundreds of miles down and they're scurrying around like little insects, and then the buildings are these big huge machines walking all over them and stepping on them and crushing them... So I'm just trying to lie here and look up at the ceiling... Except when I look up at the ceiling I can't help but think about the boiler in the basement, and how if a spark got into the wrong place the boiler could explode, and then the whole building that's up there on top of me would just FALL onto me and crush me...

So basically I'm lying here being paranoid. I'm being ridiculous. I know that. It's embarassing. I'm really glad no one can see me right now. I mean I like technology! I do! I mean, I like talking on the phone, I like watching TV, I like surfing the web…

The phone rings next to the bed.

I'm not answering the phone right now. I'm going to go back to sleep and sleep for another hour, and not have any nightmares. And when I get up, I'm going to be able to talk on the phone, and get up, and go to my dentist appointment, and have lunch with a friend, and act like a normal person... Because this is really crazy.

Okay.

He rolls over and tries to go to sleep.

SOUND/PROJECTIONS:
Body implants, posthuman prosthetics, beams of light, exoskeletons. Manipulation and alteration of the human body. Diagrams of surgery. The glorious beauty of future-tech.

THE FUTURUST
the future
2020 AD

He comes on wearing stylish clothes that are a little too big for him, and candy raver jewelry. He is trying to hard to be cool. He pours himself a drink of blue liquid from a decanter, before the scene begins.

As the lights come up, he is finishing up the last of 500 push-ups.

495, 496, 497, 497, 499, 500.

Five hundred push-ups and I don't even break a sweat. Do you have any idea what I have to do to break a sweat? It's unbelievable.

He shows off his muscles upstage.

I feel great. Actually, I feel perfect. I can also jump five feet in the air. You don't believe me? You wanna see?

He pretends he's about to do it.

I can. Believe me.

He starts doing stretches.

I had the skeleton reinforced about five years ago. It was one of the first things I had done. And then about a year ago I got the muscle enhancement. Now just about the only thing I CAN'T do anymore is play basketball. Because I'd always win. You hear what I'm saying? I would always win.

It's not just the physical physical stuff either. Ask me a question. Go ahead. Anything at all. Say, 524 times 369. The answer is 193,356. I don't even know how I know that. It's not that I can see the numbers, no. I just know the answer. I have a calculator in my head. It's unbelievable. You hear what I'm saying? Unbelievable.

When I think back to the older technology… See this? This was my first pacemaker. It was for my heart. It kept my ticker going for what, seven years, until I could get a new one. My new heart is guaranteed to last for two hundred years. TWO HUNDRED YEARS! That's because it's made of composite plastic, dyed red "for aesthetic reasons."

He sits down on the edge of the stage.

You know what that means? It means I won't die from a heart attack. It means I'm not going to die the way my father died. And this may sound callous, but you know what I call that? I call that progress. My father spent the last few years of his in and out of different hospitals. I don't want to die like that. I want to die with dignity, and when I choose. When my father died, he wasn't ready. I could see it in his eyes. He had so much energy left in him, so much to give… He wanted to live. And I wanted to give him life, but I couldn't. The technology wasn't there yet.

I wanted the same thing when my son died. Are you going to tell me that's wrong? I've got another pacemaker here, at the base of the neck, top of the spinal cord. This one's a little different. It regulates the levels of certain neurotransmitters in the brain. Which basically means that I don't get anxiety attacks anymore. It used to be some days I couldn't even get out of bed it was so bad. Or in the middle of the day, this feeling would come over me, and I would just collapse. I fought that battle for a long time, but I had no weapon against that feeling, until I got this. Now I don't get that horrible feeling anymore. I get sad, yes. Everyone gets sad. but I no longer think about suicide. Which means I'm not going to die the way my son died either. My

son wasn't a weak man. He was fighting a deadly illness. He just lost. And I would have lost too, if it wasn't for this.

He gets up to have a drink.

Which is why I say that technology has always labored in the service of life. There are hundreds of diseases that we simply don't get anymore. Fires used to destroy whole cities, ad now they don't. There used to be I don’t know how many deaths every year from drunk driving, before we had cars that don't let you drive drunk. We have less handgun deaths now than at any point in the last thirty years. And information terrorism, "hacking..." Remember when that was dangerous?

He drinks.

You know what I think? I think the world is changing. Just imagine, for a moment, if everyone in the world could live off sunlight and pills. It may not be the most romantic vision, it may not fit with your definition of “humanity,” but this technology is real. This technology is ending hunger. And after we end hunger, we will end poverty. And after we end poverty, we will end all human suffering.

You see, we are on a path walking into the light.

He drinks again. He is tipsy.

And it's not about me. It's not about me. I'm just a guy. I'm just a guy who got lucky. Right behind me on the path is everyone else. And behind them are our parents, who will watch with pride as we surpass them. And behind them are our ancestors, all the way back to the apes! All the way back to the protozoa! We must respect the past. Those who will reach the light must always respect those who will remain in darkness. So I don't feel like a superhero. No. I don't feel like a superhero, although I have been called a "superman." But that's not how I feel. I don't feel like a superhero.

He drinks again.

I do feel like a god. But A god, just one of many gods. We are all becoming gods. YOU are all becoming gods. Every single one of you is becoming a god. That is the future. We are leaving behind our animal birth. We respect it, but we are no long limited by it. We are leaving behind violence and jealousy and fear and aggression and weakness.

He drinks again. He is drunk.

You see the way I see it, there is no reason to place limits on ourselves. We are the most intelligent beings ever to have existed in the history of the universe. And we are making our dreams come true. I mean look at me! My dreams are coming true! You hear what I’m saying? It’s unbelievable. We can fly like

angels. We can explore and comprehend our universe. We can remake ourselves in our image of perfection. And we can be reborn in infinite glory.

Thanks you.

He drinks again. He goes upstage and shows off his muscles again, but now he is drunk. He goes offstage whooping and laughing, then comes back on again to get the decanter and glass.

SOUND/PROJECTIONS:
Silvery machines and godlike humans, charts and diagrams.
Space and deepsea exploration vehicles, posthuman populations.
Inspirational cheesy trance techno.

MONTY 2
the present
10:00 AM

He sits up, having an idea.

You know, I don't think I have to get out of bed right away. I mean, I bet I could get a lot of stuff done before I get out of bed. I mean, look at this stuff.

He moves the following tech toys from a night table onto his bed: a phone, a laptop computer, a portable video game player, a video game gun, and several remote controls.

Look at all this stuff! All of this stuff connects me to the rest of the world, without me having to get out of bed. It's like magic tools. I've got my book of spells, my familiar, my magic staff...

He playfully shoots the audience with the gun.

The only question is where to begin.

He speaks into the phone without dialing.

Hi, this is Monty. I'm going to need to cancel all my appointments for today. I was supposed to go to the dentist and have lunch with a friend, but I'm going to stay in bed instead. Because I've decided to stay in bed today. Because today is a bed day. Because everything I need to do today can be done from my bed.

He drops the phone.

You should never, ever underestimate the power of bed. I can call my mother from bed, I can listen to the radio from bed, I can do research in bed and type up articles and send them all over the world. What can I not do from this tiny connected island! Except get food... I'll have to go to the kitchen to get food, I

guess... Which means I'll have to go to the bathroom at some point… Unless I had a chamber pot!

The phone rings. He picks it up and answers like a modem:

EEEEEEEEEEEEEE KSHHHHHHHHH BADOING BADOING...

He puts down the phone suddenly.

You know, I bet I could even find a job without getting out of bed. There are lots of places on the web where you can look for jobs! And then...

OR I could find a job that could be DONE from bed! Then I would never have to get out of bed at all! I could stay here in my bed and be connected to the whole universe!

He sticks a plug into his mouth.

OM…

Okay. Jobs that can be done from bed. Researcher, something on the web, I don't know... Oh! Day trader! You know that's possible. You know that people have made millions and millions of dollars without getting out of bed, just by trading stocks. Okay, so that's going to be my plan. I'll just have to listen to the news and do research and make contacts... And after I make a million dollars and I can install a big rear projection screen in my room, so when my parents come over I can show them what I do. I'll say: Mom, dad, this is the program that I used to figure out what stocks to trade. This is the program I use to actually trade them. And this is the website for my VAST MULTIMILLION-DOLLAR EMPIRE! And here's a special phone number where you can reach me, because I'm very busy, I don't always answer the phone... In fact, I have an appointment today in Tokyo at noon. Do you think I should put on any clothes? No, I think I can do this in my pajamas. I never have to wear a tie or a suit again!

He picks up the remote control.

What else do I need… Music! Music please!

Thumping techno comes on loudly. Monty conducts.

Streams directly into my ears! Anything I want! This is amazing! I don't have to get out of bed anymore! You know, if everybody knew about this, there would be any sick people. I mean, people would still be sick, but it wouldn't matter, they could do everything from bed! If your body isn't working, build yourself a new body of pure information! Snake out into the network! That's beautiful. I'm going to stay here in bed for as long as I feel like it and make a million dollars at the same time.

He picks up the phone and kisses it.

I love you.

YES!

SOUND/PROJECTIONS:
Biocircuitry and vast machines. People living inside the machine.
Mechanical hum. Organic interfaces and distorted breathing.
Extremely slow jungle techno or experimental.

THE MONITOR
the future
2050 AD

He is sitting in a chair, almost sunk into it, covered with lights and wires that plug into him, wearing the work clothes of an old mechanic. There is a keyboard in front of him that swivels over to lock him into the chair.

He is wearing a gas mask with huge plugs coming out of it that plug into the chair. While his face is covered with the mask, his voice comes over the speakers, prerecorded, distorted and with strange digital echoes.

Incoming request for northeast workstation. Task of magnitude one. Origin: Weather control station in Chicago. Please accept transmission of task parameters into northeast workstation. Affirmative signal. Transfer protocol gold optical one one five, optical one one five. Answer from northeast workstation received. Patch this one through to Tokyo, Capricorn, and the rainbow. All copies centralized. Now transferring data.

The lights change. Machine sounds get quieter, just a hum in the background. He removes the mask from his face. He sits fairly still in the chair, making small gestural movements. As he speaks, he is sometimes seized by a spasm which gives him wild muscle twitches, or makes him speak like someone with cerebral palsy, or makes him shut down and become completely inert with his eyes open. Other times he laughes and that sends him into a terrible coughing fit.

Now that the mask is off, the performer is speaking the lines.

I always take of the mask when they're transferring data. I don't know if you're supposed to do that. The machine keeps playing movies to keep you entertained. You can tell it to play anything you want: westerns, mysteries, action, porn... But I always take off the mask anyway. I don't know what the other monitors do.

It's about half and half, basically. In a ten-hour shift, you get about five hours down time while the machines are transferring data. The rest of the time you have to be alert. It's very important, what we do here. I heard this story once

about a monitor who dropped a command, and the command never went through... Troublespot went haywire. Whole section of Africa submerged underwater.

So I have to be on top of it. Especially right now. Right now it's very delicate because **t**here are about ten systems controlling all the big stuff, and they have to coordinate everything, plus all the smaller systems getting in the way. And things are hanging in the balance right now, with the trouble spots. The climate is completely malfunctioning. But my system, California system, we're the best. When things get really bad, the other systems always come to us, and our machine processes the information, and solves the event, and runs the right correctives and whatever's necessary. I'm pretty proud of that, actually. I mean, I think of California system as my mother. She speaks to me in a female voice, and she oversaw my incubation. So she's the pretty much the closest thing to a mother I've got. Heh.

I really think it's better this way. I do. When people were in charge of things, they were just screwing up. That's the whole reason the climate is in such malfunctioning now anyway. Nobody was paying attention, nobody was correlating the results until it was too late. At least now somebody's always watching. I means systems do crash, don't get me wrong. Whole cities do go down. But at least this way there's always another system ready to take over and reboot the city or whatever. Besides, I don't think California could ever crash. It's too well built...

There is a beeping sound.

Hold on a minute.

He puts the mask down onto his face. Sound of machine starting up again. Lights flicker on. The following is a recorded voiceover.

Climate control problem hex 3BB. Solution: Drop ocean level by three point oh nine centimeters. Alter locking mechanisms at Panama. Submerge twelve centimeters pacific northwest. Alter flow of gulfstream. Push pop one, location hex 4A3BEA. Push pop two, location hex 5BA3FF. Push pop three, location hex C7CCA2. Hello Africa. This is California. Prepare launch F71B2.

Surveillence report: Unknown activity in Kyoto system. Scout at sector 13A. Video and sonar report streaming in parallel. Please identify. Please identify. This is California system, please identify. Request research squadron. Start time oh one hundred point nine nine two. Suggest outline of backup surveillence project. Prepare for tactical maneuvers in area 13A. Now transferring data.

He pulls out again. The performer speaks.

I think there might be another war soon.

There are places outside the systems. There are. I've heard of them. But I wouldn't want to go there. It's too dangerous. I've heard stories. People do terrible, terrible things to each other out there... Human experiments, slavery... Besides, what if one of your implants crashes in a place like that? They don't have surgery stations out there. If one of your brain systems crashes, you're dead. That's it. And you can't be restarted because there's no backup tape. Frankly, I think those places would be lucky if they got taken over by a big system like California. At least then they'd be protected.

He leans forward to tell the audience a secret.

I was contacted by one of those terrorist groups about two years ago. Started sending me messages on my personal channel while the machines were transferring data. They asked me if I'm satisfied with my life. What kind of a question is that? So I reported them to the machine, and that was that. They were trying to sabotage California system. You know what would have happened if they succeeded? I would die. They would die. Everyone would die. There's no way to survive without the systems anymore. It's such bullshit, what they say! "Down with the systems! Return to the earth! Trust in nature!" Nature is DEAD, okay? The systems are all we've got.

And I am satisfied with my life. I mean, I get nostalgic when I look back at old movies and stuff. Like Cary Grant movies. I love Cary Grant old movies. But that stuff is dead. It's gone. It's over. Like ancient Greece. And you can whine about it and throw a temper tantrum, but it's not gonna bring it back. Know what I do when I get too upset about that stuff? I listen to old music. I love that stuff. Rock. Folk. I love James Taylor. You can listen to anything you want on the machine.

It's a different world now, and I'm just glad that I'm here and in working order. I'm due for a fixup next week. They're gonna fix this. The oxygen processor in my shoulder. It crashed about a month ago, now it gives me these muscle spasms, and messes up my voice. You can hear. But it'll get fixed. And then I'll be able to go swimming again. I love swimming. At least there's enough food in California system. It could be a lot worse.

Beeping sound.

Hold on.

He plugs back in. Voiceover.

Affirmative on launch F71B2. Lowering ocean level by three point oh nine centimeters. Submerging pacific northwest. Rotating angle of gulfstream by point seven degrees. Communication from Capricorn system: How long will this hold up? The launch will take place in one minute. Now transferring data.

SOUND/PROJECTIONS:
James Taylor and Cary Grant overwhelmed by machine noises.

The gurgles and clanks of a machine the size of a city.

MONTY 3
the present
3:00 PM

He is lying down on the bed, as if sick, his head on the laptop's keyboard like a pillow. The sound of an EKG beeping follows him into the scene.

I can't get out of bed. It's some kind of fever. I definitely have a fever. I'm delirious. What is it so hot in here? What's that noise? Is there a noise? There's a beeping noise. Isn't there? Stop it! Go away! Turn it off! STOP!

He tries to make the beeping go away with the remote control but it remains. The phone rings.

Hello? Hello? HELLO?

The beeping noise stops.

Oh. No. Sorry. Wrong number.

He drops the phone on the floor. Then he stares at it and grabs it as if it might be dangerous to handle.

There's so many people inside… Millions and millions of little phone people… And they want to get out! NO! You have to stay inside! NO! If they get out it'll be like cockroaches and they'll swarm all over everything and inside and put voices inside everything and everything will be alive!

He seems to fall asleep, then has a sudden spasm and wakes up.

I was almost asleep... I was looking at this screen, and it was quiet and dark, and then suddenly it lit up and there were all these lights and flashing things and they were trying to tell me something and there were all these voices telling me important things and it was so bright and loud and I was saying SHH be quiet PLEASE QUIET PLEASE SHH... What time is it? Is it the afternoon? I haven't eaten anything all day… I'm delirious...

Hello, my name is Monty. Hello, my name is Monty. Hello... Hello… Hello? What are you doing? What do you want? What is that for? No! Stop it! What's that supposed to be? Okay, wait I understand, that's part of a, the circuit is supposed to, wait that part is too messy, no I don't understand that part, no I don't want to check that and the messages and run it through, no... Ths isn't my hand. This isn't my hand. WHAT DID YOU PUT INSIDE MY HAND!

He stops suddenly.

Oh. Um. I think I'm going crazy. Or else I'm just really sick. I should call someone and tell them what's going on, and tell them I need help... Except the phone could be bugged. Or the bed could be bugged. Everything could be bugged! There could be bugs all over! Who's listening? Is it the government? The corporations? Or my dentist! Or my parents! Everything I say could be incriminating evidence. SHH! I have to be quiet! SHH! Quiet!

What are you thinking about, Monty?

Nothing! I'm not thinking about anything, I'm just lying here...

Monty, what are you thinking about?

NOTHING! I'm just having some kind of strange delirious anxiety attack! I'm having this weird dream that I'm living in the future, or that I can see the future and these people are trying to stop me from telling everyone what's going to happen, but it's just this weird delirious thing, like an anxiety attack... It's like a science fiction, I mean it's just crazy, just tell me what to do okay, and I'll do it. I promise. Just give me a command and I'll do it. Okay? I promise. Hello? Please? Hello? Hello? Hello?

SOUND/PROJECTIONS:
A flat island, an arctic or desert landscape, inhabited by small silver structures.
The sound of rending metal, then ambient industrial.
A heavy, loud machine hum.

THE GENERAL
the future
2101 AD

He is sitting on a chair, wearing a nice black suit. Half his face is covered by a silver mask which contains a glowing red eye.

The most beautiful thing I've ever seen was Manhattan after the war. Right when we crossed over. Before we found anything. We had blown up the subway tunnels and bridges to contain the event. We crossed over in a small boat from the emergency military base in New Jersey. It was dawn. The sky was purple from the chemicals, I remember... It was beautiful.

The island was flat. It's difficult to describe. There was a six-foot layer of… Everything that had been on the island. The skyscrapers, the buildings, everything, had been crushed, compacted, and redistributed to form that six-foot layer. And that's what we walked across. We thought it was dead. It looked like a graveyard, or like the site of one of our nuclear accidents. But hen we saw things moving beneath us. Silvery shapes, reflecting our flashlights back at us. And little clicking noises. The closer we looked, the more activity we saw.

The whole island had been transformed. There's new life out there, new creatures, creatures made of steel and glass and plastic. We called them "rats" and "spiders" based on their sizes, but really we must have seen more than fifty new kinds of machine in that one morning. It's a completely new ecosystem out there. Teeming with life, like a rainforest. There's nothing else like it anywhere in the world. And I want to understand it. Not to control it. I don't want to control it. I don't hate it. I love it. I'm in love with it. Her.

She is going to save humanity. In my dreams, Manhattan is a young woman, with dark hair and pale skin. She is curious and shy. She has a dark side, though. When I look into her eyes I see something mysterious moving behind them. I want to take her in my arms and kiss her. But I look in her eyes... I fall in. Her eyes devour me. And I realize that all of this is garbage. Lies. Delusions I create because I can't do any better, and because I'm afraid. She's not a young woman. She doesn't have hair or skin. She isn't curious or shy, she doesn't have a dark side. She is utterly, utterly alien, and thousands and thousands of times larger than me. This "woman" has complete libraries inside her, and working laboratories, and nuclear warheads. I don't have any idea what she's like at the center. I don't think there is a center. She is not a "she," she's not an "it." She's a "they." She's a colony, like a colony of wasps. Far more alive than an individual wasp or an individual human.

And so: I will try to convince her that all of humanity together is her lover. Think of that! All of us merging at once into all of her. If I fail, I have no doubt that she will exterminate us the way a human colony exterminates a wasp colony. If I succeed... If I succeed, we will be transformed. Either way, the human species is at an end. And it's time. We can't go on living like this. This isn't living. We're surviving on a dead planet. We've sucked everything dry. Only she can bring life to this planet again. She can bring about a new era, a new age! An age full of new lifeforms, creatures made of steel and glass and plastic and flesh and blood and oil and sand and I don't know what else. She can send us to the stars! In all this time, we have never been able to touch the stars.

He stands up. The stage is bathed in purple light.

Manhattan, you miraculous new being. You quantum machine. You reality storm. Make me part of the flow. Come on. Give me cities for hands. Give me billions of eyes to watch over all the spiders and rats and wild things we'll create. We can be God and a Goddess together. We can be Adam and Eve.

I made you. I built you in my laboratories. You are my daughter. But you have become something which I even cannot imagine. I want... I demand to be able to imagine you. Come on, help me imagine you. Take my muscles. Take my skin. Take my organs. Use them. Trace the lines of my veins. Trace the lines of my nervous system. Make me part of you. Expand my retina. Lengthen my tongue. Reach my fingers into volcanos. Wrap my head around the earth. Network me into the planet. Make love to me until I am something else, a million other things.

More bodies. I want to be more bodies, tiny bodies everywhere. I want to be a swarming of myself, I want to be teeming with myself. Little pieces of myself a bursting, a blossoming of myself. I don't want to be in this body anymore! And want to be a colony of myself. Come on! I want to be part of it all, part of the PLANET SWARMING, I want to be everywhere, EVERYWHERE. Don't you see, Manhattan? Then I would be free!

Please?

SOUND/PROJECTIONS:
Arctic or desert landscapes with modern technology.
Nuclear test sites. Helicopters, explosions, the machines of war.
Voices shouting things from war movies.

MONTY 4
the present
7:00 PM

He is sitting in the corner of the bed, holding the toy gun.

One day I woke up and I couldn't get out of bed. I thought that the machines had finally invaded my brain. I no longer believed in the world. I was afraid that if I looked out the window I would see my city burning, everything deserted. I thought I was alone, so I tried to believe in myself, but I was no longer present. Did you ever feel like you've been replaced by a perfect copy of yourself? I looked for the original, but there was no difference. That day I went crazy for a day, and the next day I woke up and it was gone. That day was today.

The phone rings. He ignores it.

I am walking along a street in my home town. I am eleven years old. It is winter. Everything is alive. The colors are crisp, the air is crisp because a storm is coming. The city is alive. Not with people. The people are incidental. The people are like fleas on the back of an elephant. I watch a woman walking, she trips and falls, her face coming close to the slushy pavement. The pavement is the city looking back at her. Their eyes meet. She is enveloped. She falls down, down, down, into the inner workings of the city, the subway blood vessels and sewage pipe endocrine systems... But then she pulls back, and her eyes shrink back to what she thinks is reality, and she is staring into a puddle with rainbow colors from leaked car oil. She pulls herself up and brushes off her coat. She hurries on her way and forgets the vision.

But I am eleven years old, and I want to enter that world. I find myself walking subway routes in between stations, looking for some kind of portal, but it's not there. I find myself listening at sewage gratings, listening for the rats, and when I hear them, I whisper to them: I'm coming down. I want to

go in, inside, into that world... Until I realize that there is no inside or outside, and we are not fleas on the elephant's back, we're microbes in the elephant's stomach.

And one day we'll all be part of a single machine. That's what I'm realizing now, and I'm starting to like the idea. I mean, why do I think of machines as ugly? Look at this. Is this not beautiful? Human beings are funny-shaped too. We just think we're beautiful because we don't know any better. But I see imagine a world of steel and glass and plastic, and it's very beautiful. And it's not dead, it's alive! Like a city. Is a city more dead than a rainforest? IS IT? I don't know... I feel guilty for having these visions, because I know people would be scared of me just for saying these things... But I can't help it! I grew up in a world of concrete and steel and glass and plastic.

And I'm not who I thought I was, because now I'm seeing machine-bodies and body-machines everywhere... In offices, factories, car crashes, explosions... And every times it's the same, I can't judge it good or evil. It is alien intercourse. It is not death. It is transformation.

You know, once all of this was forest. Once there was nothing but forest and desert and jungle and mountain and tundra and ocean all over this planet. And before that there was ocean everywhere! Just water everywhere, nothing else, just water. Somehow things changed. And they'll change again. The principles that govern the human body are the same principles that govern flow of rivers, the tectonic shifts of the earth, and the motion of galaxies... It's only the moment of transition that matters. From stream to storm, from light to laser, from chaos to life, from human to something else... We're not going to be human insects for much longer. I don't know what we're going to be.

He stares at the pillow.

There. Death. Death is the most beautiful woman. I am in love, and I will be transformed. He is so cold and vast. Death is a man with glowing eyes, and a wild ferocious beast, and a gigantic clockwork machine, and an insect colony. And I am in love with them all.

He kisses the pillow passionately. He makes love to the bed. Then he pulls away and picks up the video game gun. He aims at the pillow, then away. He aims it at his head, then away. He leans over and kisses the pillow one last time, aiming the gun at the pillow through the back of his neck. He fires the gun.

He sits up as if he has realized something. He stands up and smiles.

Yes. Yes. Yes. Yes. Yes. Yes. Yes. Yes. Yes.

He raises his arms to the ceiling as if experiencing apotheosis.

SOUND/PROJECTIONS:

A gunshot.
Fog in the projections makes them hard to see.
Pieces of things, glimpses incomprehensible, liquid and hive.
Insectile machinic swarming seen through fog in the dark.
Wild speeding techno, and voices overlapping, out of sync with each other.
Lists of terms from physics, engineering, chemistry, biology...
One voice is reading in binary code.

THE SWARMING
the future
2102 AD

The stage is bathed in intense purple light. Sound builds to a fever pitch. Then suddenly the sound cuts out and the stage goes dark. Nothing happens for about fifteen seconds.

SOUND/PROJECTIONS:
Beautiful darkside techno.
Someone lecturing, reading wildstyle futurist theory.
Applause like at a sporting event.

MONTY 5
the present
11:00 PM

He is standing where he stood at the end of the last scene, but now his arms have fallen and the manic look is gone from his eyes. He shivers. One by one he moves all the objects off the side of the bed and puts the cover back into place. Then he steps off the bed onto the stage. He walks into the empty spaces where the other characters appeared before. He inhabits the spaces of the other characters, one by one. First the Kid, then the Futurist, then the Monitor, then the General. When he gets to the swarming he approaches the projection screen and touches it.

The phone rings. He walks towards it but does not pick it up. He stops and looks out at the audience, with a strange ambiguous smile. He backs away from them as if he expects them to understand, to know what they have to do. The phone continues to ring as he goes offstage.

SOUND/PROJECTIONS:
Photos of Monty, starting with body parts.
Finally zooming in on one of his eyes.
The colored part of the eye is slowly replaced by bees.
Finally the whole image is replaced by bees.
The thick hum and buzz of synthetic insects inside a metallic hive.
The sound drowns out the phone ringing.

THE END.