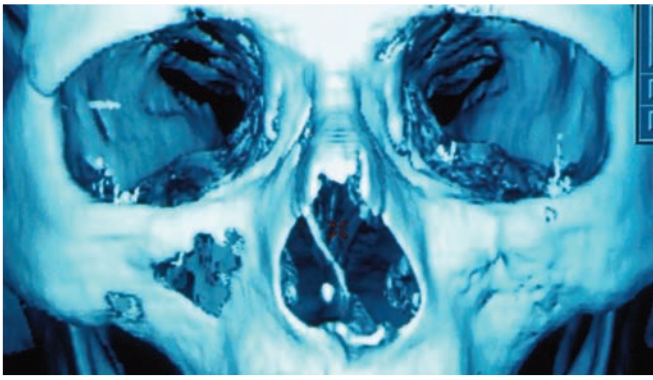
AFTER THE LAST MAN

Excurses to the Limits of the Technological System



TOIVO KOIVUKOSKI

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Thanks to my teachers and students,
who came before and after and so put me
in my place, and to Lieann,
who rescues me again and again.

"In the beginning there was no Beginning, and in the end, no End."

—Christopher Logue, *War Music*

". . . he tells his readers that they had better find for themselves the end of the story."

—Hannah Arendt, "No Longer and Not Yet,"
Essays on Understanding

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By Way of an Introduction

> No sooner were all things separated in this way, and confined within definite limits, than the stars which had long been buried in darkness and obscurity began to blaze forth all through the sky. So that every region should have its appropriate inhabitants, stars and divine forms occupied the heavens, the water afforded a home to the gleaming fishes, earth harboured wild beasts, and the yielding air welcomed the birds.
>
> There was as yet no animal which was more akin to the gods than these, none more capable of intelligence, none that could be master over all the rest. It was at this point that man was born: either the Creator, who was responsible for this better world, made him from divine seed, or else Prometheus, son of Iapetus, took the new-made earth which, only recently separated from the lofty aether, still retained some elements related to those of heaven and, mixing it with rainwater, fashioned it into the image of the all-governing gods. Whereas other animals hang their heads and look at the ground, he made man stand erect, bidding him look up to heaven, and lift his head to the stars. So the earth, which had been rough and formless, was molded into the shape of man, a creature till then unknown.
>
> —*Metamorphoses*, Ovid.[1]

For the last two and a half thousand years since Plato's attack on the myths of Homer a split between dialectical and mythical modes of thought has truncated human experience into the operations of *logos*—a "true and exact reason" or the defining word—distinguished from what Plato called a kind of "spurious reason"—*muthos*—that pertains to the unifying field of possibilities within which local events occur.[2] Through the working out of this ontological and epistemological division those mythic narratives, folk wisdoms and intuitions of the whole associated with oral traditions and mythopoetic thinking have

been consistently suppressed as part of a historical process of the progressive rationalization of beings. However, that persistently lopsided ratio of human faculties is shifting, with a resurgence of mythic attitudes—what are cosmogonies really, as in <*We live in a new world now*>—arising both as reactionary responses of auto-rejection against technological integration, and as positive-feedback mechanisms of conservative genuflection that serve to essentialize the status quo. Yet whatever its tenor of expression, this confluence of the hyperrational and the mythic bears fundamental consequences for our sense of self and for the world of meanings we make for ourselves.

As the long enduring hierarchy of *logos* over *mythos* is flattened out, mythic sensibilities are recovered on a new structural basis, with myths no longer tied to the natural human power of speech and to the system of interrelated processes that constitute the natural world (what is the forgotten soil of myth). What we have rather is a new field of potential meanings that stretch the limits of inherited reason because they are arising out of an entirely new phenomenon: a man-made cosmos constituted by global systems of exchange and communication. Here the manifold of potential relations retrieves the significant sense that all worldly things and events are systemically interconnected in a way that recalls the primordial compactness of ancient mythic worldviews, within which local events may be interpreted for their cosmological significances.

A merger of postmodern and prehistorical perspectives thus raises fundamental structural questions for any dialectical consideration of causality, since within such an integrated world-system for every one consequence there are ten thousand potential causes. To make a coherent narrative out of such a field of potential meanings, or even to begin naming and numbering its parts for that matter would require an altered mode of expression—a new language form structured via patterns of nodes or episodes, in which each story acts as a discrete field of meaning and microcosmos situated within a complex skein of events, which are themselves other stories, referring to other stories, and so on to other stories. Here the question of fundamental ontology—What is the being of beings?—takes on a narrative twist, as in the First Nations' myth that has the world resting on the back of a turtle, and beneath that, on turtles all the way down. We witness a similar pattern of the passing off of substance in the second possible scenario in Ovid's cosmogony—creation originating from an earthly, human source—where the creator of man is "Prometheus, son of Iapetus," and is thereby ontologically enmeshed in a biological cycle of begetting that begets begetting. Between symbolism and fundamental ontology, what is significant in terms of expressible meanings is that within a mythic system—whether nature-based or technological—another layer of references is always possible. It is the linkages themselves that are beings' basis for being. On the one hand, each node within a network is a microcosm and system of relations

existing as a distinct moment of expression, yet at the same time each individuated node within the system leaves openings for other threads of meaning to be filled in, with each link acting as a fold in a self-contained cosmos, opening up inward into other worlds of meaning within the same technological system.

The wonder of being in relation to beings is at the origins of both mythic and philosophic thinking, with the distinction made at those junctures at which philosophy breaks off and pauses, and where the mythmaker would simply carry on to the next story. At such moments of undetermined relations there is a special kind of closeness between reflection and being, with the undetermined subject both reflecting on the world and reflecting itself back onto the world. To reflect is to turn around, step back, and witness where one was, and in so doing change where the self stands, such that the reflecting subject is opened up in a reciprocal exchange with the subject of reflection. For given the situation of any form of reflective activity or expression in the perspectival descriptions, judgments, and worldviews that make recollection and writing possible to begin with, truth in reflection supersedes accuracy in representation of an objective reality "out there" in the world. That long prevailing model of truth as correspondence has, in effect if not in essence, apparently been reduced to a technical problem solvable by digital technologies with their infinitely reproducible, bifurcated <*yes*/*no*> truths. In light of the exhaustion through application of a correspondence model of reality in the technical reproduction of a homogenized world of objectivities, truth in reflection should be considered rather as a mode of direct participation in the phenomenon that is thought, through which the subject of reflection looks back at the reflecting subject. In this sense, even to simply perceive another being—or oneself, for that matter—is to have one's perspective altered by the experience.

This particular text is a sign of what it describes—technology—in that it is a reflection on and of the networked digital communications technologies that presently encompass the globe. In the absence of a linear order with a prescribed beginning or a given end, here nodes of text are clustered thematically, with links to other related passages suggesting situational narratives. These links act as a kind of running index, collecting like subjects at the margins for cross-referencing, rather than burying lists of categories and subcategories at the back of the book, safely ordered and out of sight. Here the idea of likeness—between a particular being and the category predicated to it, or between referents and their symbolizations—operates substantively in communicative linkages that mirror a hypertext structure. Through such symbolic exchanges, the word "like" takes on paired grammatical and ontological functions, serving as a link between local fields of meaning rather than postulating a singular correspondence between various examples standing in as imperfect representations of monolithic archetypes. In this sense

the category is made to serve the various multiplicities between which thinking makes associations.

This ontological pattern of "being in relation to . . ." has a basis in common sense, which in this instance would have one consult an index not for the purpose of the category in and of itself, but rather to find the particular entries that are collected within it, thinking outward from provisional singularities—ideas—that act as conceptual hubs joining networks of concrete particulars. Even these particulars—sections, pages, paragraphs, sentences, words, letters, pixels, data—can be considered as hubs within local networks of meaning, or at the level of operational language, as lines of code within which the life and power of the executable phrase spring from cross-references to other phrases—<*If then goto run*>. Here the characteristic if-then form of propositional logic is liberated from the loops and end phrases that the dumb function of computers reduces to via the intertextual structure of the network within which the code operates—a structure that effectively disperses compact formulations from which manifold connections and multiple endings can be drawn. As such, and as in the world after the end of history, causality is indeterminate and has tangential trajectories, context is local, and a detached Archimedean perspective is replaced by a sense of involvement in, responsibility for, and wonder at a world of our own making.

We inhabit a world of integrated contradictions, of broadband empires and wireless tribes in which the rational is co-penetrated with the mythic: a hyperrationalized global technological system that provokes its own autorejections from within a world managed for transparency of resources and efficiency in their exchanges. In light of an ending of the modern age defined by a faith in progress there is a need for a way of thinking capable of finding meaning within an integrated world, something deeper and more purposive than a technical manual concerned with network maintenance, but at the same time more rational than the mythic grand narratives that are having their renaissance. Yet given the dominant form of knowledge in technical expertise and the hollowing out of public discourse into corporate mass media the present rebirth of mythic sensibilities is understandable. As citizens become estranged from the apparatuses of technocratic decision-making and as technology itself becomes increasingly efficient and invisible in its ongoing operations those systems of human artifacts upon which public order and private satisfactions depend start to seem more and more magical in their operations. And with the new superstition that has technology operating on automatic comes a heightened sense of fatalism, which is itself a cultural product of a hyperrationalized world shading into mythic modes and orders.

After centuries of its suppression, the new efforts at mythmaking consist largely of predictably clumsy recyclings of the crudest mythic trope of an original war of order versus chaos. It is as if our cultural capacities for articulating

the dimensions and divisions of our new world are themselves thrown back into the primordial undifferentiated—back to what many of human history's founding stories identify as the origin of all things. Under such conditions, insensitivity to myth in its full dimensions too easily translates into its unconscious determination. In the present confluence of ongoing rationalization and the episodic resurgences of myth, the deterministic attitudes that presently predominate in global politics thus arise as one possible consequence of life within an interconnected web of processes and events. For within such a bifurcated framework of apparently irreconcilable perspectives, and according to the new dogmas (common to every new world born out of crisis) the mythic conceptualization of human affairs on a global scale as a cosmogonic conflict between the System and its detractors—though nonetheless based upon the (correct) intuition of the integrated operation of events—has critical discourses shading into conspiracy theories while the dominant discourse converts all alternative expressions into conspiracies by default.

Though this is not to say that the new prominence of mythical thinking is entirely retrograde. Myth possesses an entrancing sense of speaking directly to the being of beings through an attunement to the world conceived as a discursive web of relations. In myth the word is the foundation for reality, in the senses both of making the world humanly intelligible and, somewhat more magically, in terms of the reconstitution of worldviews through the periodic retelling of cosmogonic stories. Within myth whoever tells and retells the stories of how a new world first came into being, what were its origins and into what elements it was divided, acts thus to give shape, substance and overarching thematics to the world they describe. Clearly this is a kind of attributed meaning that is prone to slippages in interpretation. This sense of meaning in myth that is both totalizing and yet at the same time open to interpretation speaks to one original sense of the Greek *muthos* as Homer uses it, to mean simply a story—and a true one at that—told in its completeness.[3] Or on an alternate scale of expression, in some other instances *muthos* can be translated simply as a word, conceived as the basis of possibility for making the world intelligible, as in 'to put it into words.' A word in the sense of *muthos* can be spoken—as in the first use of *muthos* in the *Iliad* to describe Agamemnon's "forceful words," which considering the warlord who speaks them are hardly insubstantial. "He made a threat (*muthos*) and already it is accomplished".[4] Or alternatively *muthos* can mean the words that one thinks without speaking, like the silent though substantial *muthos* of Zeus—what could be interpreted as a secret plan bound together within a web of complex sympathies between humans and gods. From translation to translation these dimensions of myth as constitutive discourse describe an arc of possible interpretations from homeopathic magic intended to manipulate change in the world to the quiet interiority of language conceived as intention. At the root of all of these original senses of myth is the assumed substantiality of the mythic discourses themselves, considered within their specific cosmologies. The stories that en-

frame the mythic worldview also constitute the worlds they call into being, in that the stories act as microcosms of the world at large—first as spoken wor(l)ds, and now in the novel form of digital wor(l)ds.

To reflect on such a system of signs requires a form of expression capable of both participating in the constitutive operations of mythic language, with their programmatic, repetitive structures and episodic compactness, while also representing the unfolding quality of dialectical discourse—that is its differentiated ongoing-ness—wherein each successive idea follows from the last like stepping-stones guiding the reader from one idea to the next as a text points out toward symbolically anticipated meanings. Such a projection of meaning via symbolism is perhaps the distinctive feature of purely dialectical discourses, which can never really get to the immediate essence of the things themselves, but rather send out strings of representations of meaning, some as objectifying discourses, some as commands, some as hopes and prayers, projected from the self as subject onto a silent world of dispirited beings.

It is as this dialectical mode of representation reaches its epistemological limits that the potentials of a new mythic sensibility are made known by a series of reversals of expectations. If the truth-code of modernity in the end reduces to the *verum factum*—the truth that we have made—then what is knocking against that shell of a truth from within are the unintended products of human creativity. In our age of the global event and as a governing public faith in progress wanes, replaced by the collective apprehension of immanent, recurring, systemic crises, history is liberated of determinate teleologies and is manifest as a self-augmenting, open-ended process of change that is moved from within, alternating between the mutually affirming potentials of integration and fragmentation. What ghost of reason remains in history functions not as an end goal but rather as a servo-mechanism to monitor the iterant exchanges between these alternating threats and potentials.

How then to understand history without being able to perceive a rational end or a purpose to the unfolding of historical potentials? The question bears on how can one make sense of the place of human beings within the whole if not as historical beings situated within the context of historical progress, overcoming human-made and naturally given obstacles toward the realization of freedom. This story of development has thus far served as modernity's surrogate narrative for a cosmological order of things. At least since the systematic articulation of Hegel's universal history, the universal recognition of human beings as essentially free and equal beings has stood in as ideological justification of human purpose in the world generally considered. This idea of progress in history served as the overarching theoretical order of things in late-modernity, and it is this unifying idea that is presently under siege, as the modern principles of freedom and equality undergo a global crisis in which the self that is the locus of these progressive ideals ex-

plodes into a web of signifiers in transit and of fractured identities. Yet the same ethical crisis that may be considered, on the one hand, as an opening for a posthistorical conception of the self held together by mutual dependencies within an integrated digital environment may alternatively tear humanity apart in the drive toward the domination of time as history. For there are at least two ways of interpreting a crisis, either as the freeing of those determinations that enframe our daily lives and social order, or alternatively, the crisis mentality may register as a programmed echo of historical consciousness experienced as fate, broadcasting the insistence of wars and revolutions as necessities into an otherwise unknown future.

In terms of how a reflexive consciousness of the world is constituted and structured, one could refer to technology, or one could talk in terms of media, that is in terms of the means of communications and the corporate and consensual networks that systematize those means, but then analysis starts on the way to either commentary on shadows on the wall or, more critically perhaps, to questioning the corporations that mediate the mediations. However neither strategy of interrogation is capable of breaking through the closed circuit of symbolic exchanges that constitute the global technological system, but only in asking: <*What are the conditions that must pertain in order for us to be able to see the world as we do?* > can we come into a free relationship with the world we make, witness, and inhabit. This is not to fetishize technology, but rather to consciously engage with the fundamental conditions of possibility that set the shape of our world and in so doing both enframe and instigate the sources of disorder in our psyches and our global politics.

For social constructivism, goto "a global event," page 11.
For liberation, goto "the enemy as imperial excess," page 112.
For an Archimedian view, goto "the imperial perspective," page 113.

NOTES

1. Ovid, *Metamorphoses*, translated by Mary Innes (London: Penguin, 1955) 1.70–90.

2. *Timaeus*, 52b. Plato's substitution of *logos* for *mythos* as the "true word" rests upon an ontology that privileges eidetic stability over worldly flux. The Platonic *logos* functions as a symbolic representation of archetypal ideas, the outward forms of which gather together the enduring remains of phenomena in a scavenger-like dismembering and dispatching of the living language of myth. For an elaboration on the dividing and stabilizing functions of *logos*, see Martin Heidegger's *Being and Time*, Macquarrie and Robinson (trans.) (San Francisco: Harper Collins, 1962) 32–34.

3. *Odyssey*. 12.450.

4. *Iliad*. 1.388 (my translation)

1

Thinking Technology to its Ends

> "I shall lay before your eyes the works of men involving corporeal things. After causing you to wonder at the most powerful machines, the most unusual automatons, the most impressive illusions and the most subtle tricks that human ingenuity can devise, I shall reveal to you the secrets behind them, which are so simple and straightforward that you will no longer have reason to wonder at anything made by the hands of men."
>
> —Eudoxus speaking in *The Search for Truth*,
> René Descartes

THE FRAGILITY OF TECHNOLOGY

The world in which we do our human business[1] is held together by a technological system composed of mutually interdependent military, political, economic and cultural communications networks that are increasingly and apparently fragile. We saw this from a macro perspective when the electricity supply system collapsed in eastern North America, for example. Such crises heighten an emerging sense of awareness of the mutual interdependencies that constitute the global technological system, but prosthetic memories are short by design and the blast of media coverage that was heard during that event has gone silent, the problem handed off to technical experts on its way to being forgotten while attention shifts from one crisis to the next: <*What was the problem there? a surge in demand and a scarce supply of electricity? a mid-summer heat wave? a downed electrical line? a wind storm? a lightning bolt? a chain reaction within a sub-continental network. . .*>

This basic intuition that the technological system is fragile is experienced in daily life, and global society in turn articulates that common sense in ever more pervasive and widely broadcast fears of the end of the world. The global community has been living on edge since the first truly global event that was S.11, with its various interpretations and consequences. However, the true danger to be witnessed in the present crisis, as in any, is in the outlook as much as in the event itself, where the terror of the spectacle functions as a self-fulfilling prophecy to escalate millenarian attitudes into militant religious zealotry, making fears come true in the form of a man-made, real-time televised hell on earth.

Yet the reality that is at issue for those who wish to remain aware, involved and at home in the world is not an immanent end of the world, but rather a crisis in our own understandings: that is, the end of the world as we knew it. Neither a gnostic flight from worldly life nor violent reactions to ratchet up the imposition of a technological order can bring us closer to this reality in understanding. Rather, the idealist and realist attitudes here act reciprocally to confirm and instigate one another in an impasse of traditional categories of division giving substance to their own antitheses, with brute control refused by ideals in the abstract extreme and visa versa. What hope remains within this cyclical exchange of provocations pushed to the limits of self-annihilation is that it should offer the most insistent provocation: toward a serious consideration of a collective dependence on technology as our enframing and mutually sustaining environment.

After all, the technological system is not an abstraction, but our defining reality in the sense that it makes our shared lives—that is our public, cultural, and political lives—possible. Our economies depend on electronic exchanges, both on the macro scale of global finance, as well as on the micro scale of credit card and Interac™ transactions. Our communications depend upon the Internet and wireless networks, and our public institutions depend upon similarly constructed systems. These sorts of interconnected systems have demonstrated their fragility regularly as everyday data burps, more occasionally but alarmingly as major system failures.

For millenarianism, goto "killing for reality," page 109.
For economics, goto "the hopeful science," page 46.

LIFE INSIDE THE TECHNOLOGICAL SYSTEM

One does not have to go looking for crises to see the fragility inherent in the technological system, though it is important to think about such extreme examples to see the system stretched to its limits, since the essence of a be-

ing is defined in relation to its nonbeing. In this sense we experience knowledge of a being when we apprehend the danger of its passing and recognize both its limits and ours. We notice technology for example when it doesn't work. This is when we start asking questions concerning technology, such as: <*What happens if the interrelated system of apparatuses used to control nature falters? What happens when beings—human or nonhuman—react against their integration?*> We cannot know the future—postapocalyptic nightmares will not shine a light on our somnambulistic culture—but we can reflect on the present and remember the past, looking for the limits of technology.

Consider my day yesterday for example. I went to the library to sign out a book—Sun Tzu's *Art of War*, a perennial classic on the importance of stealth, spies, and the sheathed sword (all prudent lessons for the helmsmen of that awesome technological empire, the United States of America). Though the book was apparently on the shelf, I could not access it because the library's computer system was down. With the technology not functioning, it was as if the library were not there: without a way of conceptually organizing the books—of seeing them all in one view—the contents of the library became effectively just a pile of papers, and the institution stopped working (except perhaps for those nomadic readers who wander through the stacks). The content of the library consists of the books, but the medium is the on-line catalogue, linked to the Internet; and though books have a physical existence and are relatively stable (if protected from the natural elements of fire and water) the being of the Internet is electric. As a medium, unlike a book it is not sustained by the existence of self-subsistent medium, like cellulose for paper, which holds together because of its inherent properties. The Internet exists rather as a system of symbolic exchanges between its material nodes—terminals and terminal operators—with the being of the system as such constituted by active communications. If these electronic connections are overloaded through excessive traffic, a denial of service hack, a tree branch fallen on a wire, a lightning bolt, etc., then the system simply stops functioning. The hardware may be available to interface with the system, but unless there is a flow of information the computer screens stare blankly. What was real just a moment ago, as a library is a real ordered whole, suddenly vanishes—from presence to absence in the blink of an electronic eye.

It goes without saying that there was no card catalogue to back up the computerized system. So when I asked the Librarian what to do, she suggested that I have a coffee and wait. There is a Starbucks™ in the Carleton University Library now, and to accommodate the corporate presence food and drink have been allowed into the stacks. Now corporations are often sold as more efficient than public institutions like libraries, but they are no less susceptible to the fragility of technology. When I mentioned to the Starbucks™ clerk that the computer system in the library was down, she replied

that "Yes, the system's been slow all day." "Slower than slow," I said, "the system is down." "No," she said, looking at her terminal screen, "it's moving, just slow." She was referring to the Interac™ network, not the online catalogue that I had on my mind. But then systems tend toward integration with other systems via technological development, and toward an overarching sense of the system; indeed, the purpose of technological development can be conceived as an unfolding of relational potentials toward integration for the sake of efficiency of exchange. The System as such is thus not conceivable as an end—as in a given form or design along the lines of a Platonic *idea* guiding history—but rather as an ongoing process of unfolding, actualizing and de-actualizing potentials formed by increasingly complex linkages: some hardened into institutional structures; others undoing the same; others sprouting up in cracks in the concrete. In this sense both the Interac™ and Internet systems follow pathways in the same electronic forest, functionally distinguished through the use of different interfaces: PIN-pads and self-check scanners. At a middle ground level the two systems are distinguishable as networks, one the property of a corporation, the other at least nominally public. On that particular day the University's network wasn't up, but the corporation's was, so while I couldn't find the book I wanted, someone could still sell me coffee—held over the edge of an abyss with a double espresso.

Not to complain about my day, but I encountered further problems with technology in the photocopying room. Machines ate paper, stopped working in the middle of jobs, and ran out of paper. However, by comparison with the other malfunctions these mechanical impediments were reassuringly isolated and almost charmingly tactile. If one machine was jammed or ran out of paper or ink, I could simply move on to the next machine. And when it became apparent that all of the photocopiers were out of order, I could wait and watch the workman with his satchel full of tools open up a machine, put its parts back into proper order, and begin to start things up again. Electronic technologies, however, lack this stable, tactile, singular object presence of machine technologies. Electronic technologies constitute an interconnected system that is more than a sum of its mechanical parts. Machines do in a limited sense constitute a system also in that machines make other machines and so belong to the systems of production to which they contribute, but the interval between the construction and the obsolescence of a machine—its working life—is much longer than the electric pulse of digital data. As economists after Marx have made clear, the instruments of capital depreciate, the machine rusts and grows useless, though the system of exchanges within which it functioned keeps operating—the limiting factor being not so much the possible malfunction of the machines themselves, but rather those systematic crises that are products of proscribed functions.

Working within the lockstep logic of mechanical production, Marx and other dialectical economists projected toward certain immanent contradictions arising within capitalism as a result of increasing efficiencies: the tendency from open competition toward monopolistic practices; the drive to free surplus investment capital for overseas opportunities through imperial ventures; accumulating inventories and the domestic under consumption of manufactured products.[2] Clearly, some of these imagined projections were more sage than others, where in some instances ethical humanist ideals were substituted for a strict analysis of capitalism's dual potentials for progressive integration and discordant development. Judged within the framework of dialectical economics, prophets of the immanent demise of capitalism as a system went wrong when they projected beyond present ethical crises toward a necessary resolution of those contradictions, in an instance of ethical outcry as prognostique. For many of those same contradictions that they projected into the future are compressed within present global systems of exchange, though on a nonhistorical timescale of just-in-time production (to relieve the risk of large inventories on wait), planned obsolescence and the manufacture of desires (to reverse underconsumption), and global divisions of labor (to ghettoize and isolate revolutionary potentials). Now it is as if those potential energies, previously stretched out over and defining historical ages, are discharged and dispersed in episodic, electric explosions, some as quick as a flickering of the lights.

The working machine stands ready as an input-terminal into a system of production and exchange, and as such is more a tool than technology. While it is true that machines embody certain systemic structures in their homogeneity—traces of the assembly line and process-marks left by the tools that made them—they have an artifact existence also, like wrenches on a workbench. And while collectors may preserve old wrenches, tractors, and hammers as artifacts, few preservers of memorabilia want to save old computers.[3] With electronic technologies one is dealing with a true system, in which the flow of information and non-material communications constitutes the real being of the system, whereas the hardware—the computer terminals—act rather as interfaces into the system as such. As the inventor of the World Wide Web protocol for information exchanges over the Internet, Tim Berners-Lee, describes,

> . . . a piece of information is really defined only by what it's related to, and how it's related, . . . There really is little else to meaning.[4]

The essence of information, the animating substrate of digital technologies, is constituted by its flow rather than the bits of information themselves, which are reducible to the ultimate abstraction—the nonnumber zero, an empty set—and to the bare minimum indication of some kind of undifferentiated

presence in the number one. The being of the technological system as such is thus to be found not in the content but in how the content is interrelated and how these relations and communications are structured. The specific kinds of structural differences that intervene between mechanical and electrical technologies became apparent through my experience with the photocopiers, where my real trouble with the copying-machines started not when the machines themselves broke, jammed, or ran out of paper, but when my payment card was refused, that is when the system of electronic information exchanges didn't function. And just as I couldn't find my book with a backup card catalogue, I couldn't use "real" money to pay, since Carleton University has its own proprietary method of payment—an Interac™—like Carleton Card™—and none of the photocopiers at the University take coins. My Carleton Card™ had an error in its magnetic strip, so I had to go off to another office—and another node in that hierarchically structured institution—to solve this new technical problem.

This was the fourth Carleton Card™ that I had been issued, as there had been problems with my file in the University's new Banner system, the centralized electronic database used to store and access information about students and faculty. Here is the University's description of the new, integrated system's concept and supposed benefits:

> *The new administrative computing system Carleton University is installing is a radical change from the earlier CP-6 mainframe environment where users tended to create their own separate databases, based on their needs. These databases did not "talk" or share information with one another. In most cases, this meant duplication of effort and greater chance of errors.*
>
> *That was the past. The Banner system is the future.*
>
> *Under the new Banner system there will be only one database. Data will rest in a relational database. How users relate to the data will be through modules grouped together under associated systems. These modules and systems are the heart of the Banner concept.*[5]

Technohype turns to totalitarian fiat <*THERE WILL BE ONLY ONE DATABASE*> as relatively autonomous networks are dismissed as inefficient and steamrolled in a social-Darwinian push toward integrated organization. This integration may make the system function more efficiently, when the system does function. But it also creates dependencies on centralized organization—a recurrent weakness in social formations—while increasing aggregate demand that then tends toward peak periods of high usage, which can cause slowdowns or even shutdowns of the system as a whole. When this happens, all modules and all terminals are involved, not just those users within relatively autonomous networks. Then everyone's "relation to data," to borrow that not-so-charming phrase, is compromised.

So we wait.[6] I can't sign out the book; we can't go to work or buy groceries; we have to boil the water and light candles. Perhaps this is only a brief pause, a moment in the electronic dark before the lights come back on. But even if the governing faith in the technological system does manage to hold, we should take these moments in the dark to think about our interdependencies within technology, about the slender electronic threads that weave our lives together, taking into consideration their limits and ours.

For impermanence, goto "history is an act that went walking," page 43.
For machine technology, goto "the state as mechanical man," page 105.
For the limits of self-knowledge, goto "configurations of reality," page 85.
For system, goto "system logic," page 13.

LIKE WATER TO FISH

We are surrounded by technology, yet for that very fact it is difficult for us to see and know technology. Technology conditions our modes of thinking and our possibilities for action, and at the most basic level frames our way of being in the world, and so it is hard to express a reflective understanding of technology as such beyond empty expressions of either self-satisfaction or anxiety: i.e., we are self-satisfied when we feel that technology is working for us, and anxious when we are out of joint with its operations and their often unintended byproducts. There is this existential difficulty in defining technology, in that both its ubiquity and obvious benefits make a clear and deep understanding of the phenomenon difficult. We can understand our microwaves and laptops as technologies, if by 'understand' we mean 'effectively use,' yet we have trouble answering what technology is, in and of itself. This is not even considered an important question, however important we take technology to be in our daily lives and in the shape of our shared world.

Technology makes an impression on our thinking nonetheless, whether the full range of these effects are consciously realized or not. Our working definitions of technology allow us to think along with technology, accommodating ourselves to it, like the computer programmer who bends her thoughts to the workings of a machine, willingly taking on its sense and logic. This is not necessarily an oppressive relationship, but it is one in which it is hard to tell where the human being stops and technology begins. We can hold technology in our minds, but precisely for this holding close to technology our functional platitudes fall short of understanding. Still, our working definitions of technology that we use to get by in daily life do

contain traces of the subject—technology—like scar tissue on our thoughts that must be interpreted as forensic evidence to see what we have done to ourselves.[7]

For automutilation, goto "savage machines," page 82.

PLATITUDE #1: <TECHNOLOGY IS GOOD OR BAD DEPENDING ON ITS USES>

It is common to think of technology as a value-neutral set of tools. So for example, whereas abortion facilitated by modern techniques must be considered hideous in the hands of Nazis it may look less horrific when practiced by sympathetic doctors today. The anaesthetizing effect of technology—the numbing of the nerves of life—consists in the detachment of the consideration of ends—that is our consideration of the highest common purposes—from an understanding of means. Since the means, or what we actually do to accomplish our ends and which practically constitute our daily lives and public actions, are separated from our thinking about ends, technology comes to be seen as something neutral, a system composed of autoregulating automatons that perform their functions like the numbed limbs of a disembodied intellect.

The account of technology as a neutral tool is platitudinous in that neither Nazis nor advocates of abortion see a need for either an apology or a defence. Both see what are, in their views, self-apparent goods: the elimination of Jews, homosexuals and communists, and the freedom of a woman over her body.[8] More fundamental than the stream of ad hoc moralistic babble that flows over these stones is the stronger current into which it flows. What is important within the technological system, outside of the discussion of ends, good or bad, is that the process continues to flow. Technological development is self-referential and self-augmenting in this sense. The processes of development and the introduction of new systems of technical means erode the metaphysical grounds of judgments pertaining to the ends of action simply by transforming the consideration of what is good and bad for human beings to do into possible choices within an array of technically feasible options. Technology makes virtually all ends possible as future technical potentials. When the last men that inhabit the technological order of unlimited options go shopping for values, the consideration of ends becomes a matter of taste, so long as one's tastes fall within the liberal sense of style, and so long as one keeps shopping.

The availability of different values as technical possibilities or as articles of consumption, and more fundamentally, the idea that values are goods constructed by human beings for human consumption, radically alters the status of the moral purposes that would direct technology and put it to

good use. Under such conditions the purposes themselves do not function as principles in tension with presently available means, since the values that should direct technology are themselves products of the machinery that makes their realization as ends possible. Values are human-made goods. They are what we value: the value-added to the contingent stuff of human and nonhuman nature, that is, what we wish upon the world and for ourselves. And of course, values are plural. Technology neutralizes the discourse of values simply by making those humanly created goods technically possible as alternatives. On what basis then should we choose our shoulds? Only the free act inspired by a free thought projecting out from the cycles of production and consumption of goods can postulate a Good beyond the goods that are gone when they are drunk, eaten, thrown away as trash, recycled or reinvented. The neutral field of open-ended potentials that is liberated by technology opens up our conception of values to this possibility, driving toward the revaluation of values, to steal a phrase from the thinker who first told us what values are: goods that we make for ourselves.[9]

For revaluation, goto "the habit of transcendence" or "interstice," page 89.

INTERSTICE

> "'We have invented happiness,' say the last men, and they blink."
>
> Nietzsche, *Thus Spoke Zarathustra*, §5

The opening for interpretation in the last man's declaration of self-satisfaction—atrophied by an absence of desire yet preserved by the language forms that hold apart past from present from future—is in the verb tense. For if taken strictly in the immediate present tense the technical content of the statement is correct, that is if one takes truth as correspondence between a claim and technical capability; indeed, in this basic sense happiness is invented daily, baked like bread, and today's marketplace is crowded with clones of Nietzsche's last men looking to consume some truths. This is after all and for functional purposes how truth is taken normally, as a *verum factum*, i.e., <*Can we make it so?*> But accuracy of representation, or put differently, the actualized correspondence between ideal and real, or wish and fulfillment, is not an adequate expression of truth. What then is missing in the last man's statement of self-satisfaction, even if that statement is technically speaking correct? If there is room for interpretation in the self-referential core of liberal economic, political, and cultural logics, it is in the interstice of the past tense. That punctuating second of remembrance, even in the very blink separating the past from the eternal present of momentary consciousness

contains within it the potential for a free relationship with technology—opening up a possible perspective beyond the immediacy of present satisfactions within technology and its by-products. Without that freedom for remembrance and reflection, taken up by the fleeting passage of technological novelties that stave off boredom and tickle the restless spirit, technology drives toward the creation of new purposes and desires that would give shape to new technical possibilities, each new value made more compelling in its universal appeal, demanding in its global application, and violent in the counterreactions that it provokes than the last.

The closure of the question of the best political and economic order works to depoliticize global politics through imperial means, in effect resituating social conflicts from the global commons to global ghettos, while recasting wars as policing and revolutions as market corrections. For what is there left for a civilization to think or do, what action is not determined and so rendered inactive—that is reactive—when humankind believes it has invented both the effective ends and means of happiness, that the contradictions of human, historical existence are solvable through some kind of liberal democratic, world order engineered to please the global masses? On what terrain will the revaluation of values then occur? The progeny of political man answers: <*On yours so that it is not on ours*.> Here the possibility of the relocation of war under conditions of globalization acts as another anesthetizing inducement to the continuation of ongoing global war. Though Hegel may have been correct in pointing out that history is necessarily drawn toward the end of the universal recognition of human beings as essentially free and equal beings, he could not have predicted the kinds of vigorous reactions and energies of overcoming that his end of history thesis would provoke, Nietzsche's first and foremost, though certainly not last.

<*Blink*>

For reflection, go to "configurations of reality," page 85.

WATCHING WAR

> *. . . he has become a spectator merely enjoying himself and strolling around and brought to a condition which can hardly be altered for a moment even by great wars and great revolutions. The war is not yet over and already it has been transformed a hundred thousandfold into printed paper, already it is being served up as a new stimulant for the weary palates of those greedy for history.*[10]

The continued appetite for history that persists after the end of history could kill humankind through an aseptic death by indigestion, the conse-

quence of a steady force-fed diet of televised wars and predigested revolutions that numb humankind to action by packaging it as entertainment.

For global war, go to "surrealism and the American geo-political imagination," page 111.

A GLOBAL EVENT

> The earth has become small, and on it hops the last man, who makes everything small.
>
> Nietzsche, *Thus Spoke Zarathustra*, §5

S.11 was the first global event, in the sense that it constituted a moment of shared, global awareness and was fixed upon as a common locus for a newly emerging collective consciousness. There have been earlier events that have had worldwide impacts, like the explosion of Mount Tamboro in 1815 that brought on year-long winter in Europe and influenced long term climate change for the entire Earth, but beyond its environmental effects that natural event was not an object of consciousness for the whole world at once: the volcano erupted in April of 1815, but the ash that darkened the sky and blocked out the sun did not disperse over the entire globe until the next summer, so that the event did not achieve the shared singularity that could give rise to a global sense of fragile mutual interdependence, but rather produced only a faint sense of the influence of far-off events.[11] The effects of Mount Tamboro—the spectacle as such—were felt after the volcano's explosion, as the clouds of ash drifted from the epicenter of the blast, whereas the second explosion of S.11 (timed for maximum mass media effect) was witnessed in real time over global communications networks and so became a singular moment of shared experience, however much interpretations of the spectacle may have differed. What we saw through technology was made possible because of technology—the consequences of a world that has become interconnected enough to see and act upon.

Other predecessors to the first truly global event were the two World Wars and the stock market crash of 1929, but although they were transmitted throughout the world via early mass media and emerging global systems of production, distribution and destruction, those human-made catastrophes expressed a fractured singularity. Mechanical technological systems work within the framework of discursive time, like a typewriter, an assembly line, or a train clanking along rails, and not in the compressed electronic instant of a binary on-off, as digital technologies do. The elapsed time effect of machine technologies made a truly global event technically impossible, for such systems lacked the means of near-instantaneous global communications networks.

The machine-age World Wars, though extensive conflicts with theatres in different regions of the world, were broken up by front lines and stitched together by diverse interests and alliances between relatively autonomous states. The notion of global policing that overarches a global war against reactionary terrorism would have seemed impossible then. An abstract longing for universal justice did arise after the horror of the First World War in the form of the League of Nations, but the idea lacked the effective means of realization through voluntary compliance within a federation of nations. Only after the divided territory of Europe was leveled by the destructive powers of industrial age armed forces did an emerging common sense of the shared consequences of technology begin to take on real, prescriptive power. However, the sense of unanimity and concord through shared suffering that made a common sense of international law possible following the end of the Second World War was soon upset by the imperial trajectory of Cold War global politics. And although there are still those loyal to the divided worldview of that not long passed warlike age of humankind, and while the dynamics of imperial politics are certainly still at play now, the conception of a common good for the global community rooted in shared experiences and made possible through global communications networks is a potential unique to our digital age.

This is not to suggest that the attentions which are gathered together in the singular event of the spectacle form a consistent, homogenous whole. Rather, the nodal structure of the spectacle, broadcast from 'ground zero'—what is the nonplace or gap at the center of an explosion, a void, like the pit of a volcano, or the smoke-darkened interior of a mirrored building—spreads out via networks of communications that situate spectators relative to the site of the global event. The process of locating the situation of the self thus begins with the predictable interrogation: <*Where were you on the day of . . . .?*> The locus of self-knowledge is traced out in this manner along the circuitry of communications networks, from transmitting hubs to wireless receivers, with a particular perspective situating the person as receiving center in relation to transmitting centers. This differential links a world of events as objects to the self as subject, such that in a curious flip-flopping of perspectives the subject is treated as object, while the object takes on a subjective value—it is an event 'with meaning.' If the object is, in its etymological sense, that which is thrown before the perceiving subject, here the perspective on the event is both the subject and the object. In this sense, the diversity of those perspectives can be seen as the shrapnel of global events, such that the unity of the global phenomenon itself has as its correlate a fractured sense of consciousness. Within this framework of a singular event the bases for common identifications consist not in the mechanical manufacture of objectively identical, homogenous perspectives, but rather in the wounds that rupture the coherence of self-identifications and that mirror the imploding gap, the *nihil* at the center of the modern self.

For global events, go to "inside the spectacle," page 102.

SYSTEM LOGIC

> "System," in the precise sense of German Idealism, is a totality that is all-encompassing since it includes/contains its own inversion[12]

The word "system" has ancient Greek roots in a family of words pertaining to the existence of things, which one can relate back again to the English verb "to stand";[13] that is how beings stand out as individuated beings or stand together within groups. The verb *synistanai* means specifically to stand together or, in its passive form to be set together, a notion which raises the question of how ideas of likeness function, that is, how beings are grouped together through categorization and how distinctions are drawn between them. This question is especially pointed when considered in terms of the imperial, Latinized lexicon of late modernity, with its novel concept of a total system.

How can such a concept be defined? Though local systems can be discretely delimited by interest areas, the idea of a system as an all-encompassing totality appears more as an ideologically overgeneralized whole sopping up particulars than as a clear and distinct object of experience. What is presented in the concept of a total system is not so much a thing in itself as a mode of appropriation. A system is not an object but rather a method of gathering experiences together, an enframing that leaves process marks that allow one to trace out, if not "The System" as such, then rather the effects of systematization and by extrapolation the logic peculiar to it.

One way of understanding total systematization is as a realization of idealism and an idealization of realism, that is as a reciprocating process of instantiating a universal model while rationalizing the means necessary to collapse the distinction between universal and particular, such that the model gains a sense of substantiality while particular beings are gathered together within a concrete universal. This process elicits a curious reversal of expectations, since the abstract totality in itself becomes the dominant phenomenon, while the particularities within it are diminished in their substance, reduced to white-noise static. What is represented via systematization is a set of contradictory processes through which the System as a totality becomes manifest as spectacle, as the otherwise abstract universal made manifest, while the System's discrete limits remain indistinct except for ephemeral visible forms traced out in relation to unsystematized elements. The virtual universal of the System is overexposed to the point of obliviousness, while the particular realities and driving determinations of the System—its rough edges—are hidden away behind the barbed wire of a

maquiladora, in the oil-slicked waters of the Niger Delta, or at the edge of the bush where gravel road fades into the stumbling mess of a clear-cut. The reality of the System as such thus makes its appearance only by proxy, in contradistinction to that which stands together within the system, with those antithetical nether-regions functioning as animating foils to the processes of systematization.

Systems, and the systems within them, are for working purposes provisionally and locally defined, whether the particular system in mind is a computing terminal, a hydroelectric grid, or a closed network—even global systems like markets and international organizations operate within their particular interest areas and locales; i.e., a system exists wherever relations have been established. Systems thus become apparent at their limits of inclusion, either as those boundaries are manifest in the process of systematization, or in the falling apart of systems into the unconstituted. A system is one of those things that is so indistinctly obvious that it is easier to see indirectly, in that range of peripheral vision in which the eye is more sensitive to light—at the penumbra of the phenomenon, where the partial shadow of the system makes it intelligible. Straight on and under full exposure the light washes out the detail and distinctions and the being of the system as such is exploded into an abstract universal. It is rather the nonbeing of the system that is the clue to its historical essence, in that it is the System's nonbeing that makes the System as such capable of change through the periodic rearticulation of its formative principles of inclusion and exclusion, and thus also of being defined—that is having its finite limits traced out, like the clear line of flotsam pushed against the edge of a lakeshore by waves, contesting and recurrently reestablishing the division between land and water. Where the metaphor breaks down is that in the case of system logic we are not dealing with being and nonbeing as distinctive elements, but as functions of one another.

Here we can look to the German historicist philosophers—Schelling, Hegel, Nietzsche, Marx, and Heidegger (some of whom were systematic thinkers, all of whom are bound together by the idea that the truth changes over time)—and the new logical principle of late modernity that they conceived: the principle of contradiction, we could call it, that a being can be both itself and its opposite, even at the same time. So Schelling writes that:

> Every entity, everything that is, wants to be in itself and out of itself at the same time.[14]

This divided ontology is the clue to understanding both system logic and its supposed product—that is a system for producing universal freedom. Within a whole, whether it is considered at the scale of a world historical civilization with its ensemble of cultures and institutions or in an individ-

ual with their set of values and perspectives, according to Schelling there subsists this basic contradiction between that which keeps to itself and that which would extend itself out into the world. And as in many mythic cosmologies which match the structure of the soul to the structure of the cosmos, Schelling considers personal motivations to be expressions of an historical motive, such that the same cosmogonic principle is reproduced within individuals, who are motivated by an ongoing struggle between a force that would hold onto an inward, self-subsisting identity and a force that acts to extend self-consciousness into the world.

On the basis of this supposition there can be no static end of history for Schelling. Rather, the recovery of an original freedom experienced in the unity of extensive and contractive forces opens up new futures that share in the undetermined past. To be free in this sense is to be neither obliged by a given identity nor compelled to extend one's identity into the world. Yet such a perfect system of freedom comes at the expense of a capacity to distinguish particular moments of consciousness, for as soon as a part is set apart, it sets up a limit to perfect freedom. This is, as Hegel calls it, a "night in which all cows are black"[15]—a world so free that its movements cannot be rationally intelligible. In Schelling's mind however, though history may indeed be driven by contradictions between distinct moments of consciousness, our desire to overcome those contradictions indicates an intuition of an original state of noncontradiction preexisting the self-divisions of spirit. The idea is that if we can somehow evoke the primordial, undifferentiated original state of being we can retrieve an open-ended potential for transfiguration. Freeing the present thus requires jumping back behind the determinations of the intervening succession of events in order to dwell in the pregnant moment of possibility before history began its unfolding.

One finds contemporary examples of such evocations of total freedom in various fundamentalisms, which are intended to function as radical retrievals of past golden ages. According to such orientations, we can only be free to the extent that the conditioning effects of historical divisions—generally considered in terms of the contaminations of modern subjectivism, with that basic division between the self as subject and a composite world of objects—are subverted through a recovery of an original unity existing prior to any distinctions between individual and community, or action and effect, or the word and the truth. To be free from the contingencies of history requires repeating the original genitive act, the "primordial deed."[16] But because such retrievals require the divestiture of the contextualizing passage of history through which the past and its interpretations are transmitted into the present, in practical terms fundamentalisms treat the strict repetition of the original as a necessary precondition for free action in the present.

What remains of such efforts are systems of history so perfect that they cannot allow progress beyond the past, because the first moment of contingency

would effectively condition the realization of total freedom. One can only speculate on the fate of an unfinished manuscript, but perhaps this is why Schelling's *Ages of the World* never got beyond its account of the past toward the present and future, though it was intended as a complete system of history, wherein "There will then no longer be a difference between the world of thought and the world of reality. The world will be one, with the peace of the golden age heralded in the harmonious connection of all the sciences."[17] Within such a system of history freedom must be conceived as a necessity, based in an almost instinctual reflex recalling an original unity that is disjointed as soon as one begins to act, speak, or reflect.

The basic concept of mutually animating opposites that is first introduced by Schelling is also prominent in Hegel's system of history, though in a less compact formulation, in his division between the free self and the world of objective determinations. The free self is a being that possesses its being within itself, and seeks the sovereignty of self-legislation and autonomous existence. Over against the self so conceived is the 'stuff' of the world, conditioned and controlled by given laws functioning as externalities, in the manner that gravity acts as a force upon matter. Historical progress for Hegel is the process of synthesizing those two domains of freedom and necessity, to the end of making freedom a global necessity.

Likewise attuned to contradiction, for Schelling history is the unfolding of opposing drives for and against change, with progress moved by the contradiction between that which would change and what would remain the same, between being—the participle, acting form of *to be*—and what-is—the immediate, undisclosable identity of the thing itself. On the one hand there is the drive to integrate, include, and expand a civilizational framework, and on the other hand there exist nodes of resistance: that which will not be integrated, the exceptional act, or a culture capable of being understood only on its own terms and within its own system of meaning. Out of this original division emerges an immanent version of progress that is moved from within: a episodic, mythic conflagration that is released toward the future by the irreconcilability of crisis itself, like a door that opens up from the inside out:

> Thus, only contradiction of the highest grade is able to break open eternity and disclose the complete system of times.[18]

Disclose, that is, to historical consciousness attuned to crisis and taking in the protagonist as well as the antagonist forces of history, like Herodotus, who gave witness to both "the great deeds of the Greeks and the barbarians."[19] But for the ancient historian "Greeks were still Greeks and barbarians barbarians," whereas the historicist thinker is driven to exercise a special power of mind in impartiality even toward the categories of his own

thought, such that self-consciousness turns inward toward its own internal contradictions. In one of his more mystical moments Hegel writes that:

> . . . mind is this power only by looking the negative in the face, and dwelling with it. This dwelling beside it is the magic power that converts the negative into being.[20]

Here the mind with its unique power of stepping outside itself—that is of reflection—is represented as the thinking that thinks itself, a clever trick of German Idealism and the essential turn in Hegel's circular argument for the possibility of a systematic completion of philosophy. This immanent end is for Hegel realized in the universal recognition of human beings as self-conscious—and therefore essentially free—beings; "a result," Hegel remarks as if in passing, "which happens to be known to myself because I already know the whole."[21] Hegel's ambitious claim is also a criterion for knowledge that, in order to be systematic, must reconcile worldly antagonisms, plural expressions and contingent moments of historical consciousness with the spirit of thinking the whole. To satisfy this claim requires mapping those contradictions onto thinking itself. To be thus completed, the replacement of the love of wisdom that is philosophy by a comprehensive science of wisdom would have to produce a reasoning process that included its essential opposite; that is, an historical science of reason that also includes the irrational.

What makes this culminating project of the enlightenment in the rationalization of the irrational overall interesting is not the systematic expression of Hegel's historical science as such, which is more of an impressive feat, like a virtuoso circus trick, but more importantly the new status of the negative within reason, of the dark and the formless, and ultimately of death, as the animating impulses that move living human beings to desire and to overcome the objects of their desires through negating thought and action, apparently making themselves free in the process. This basic kernel conception of free-being as negating-being is both the logical grounds and the effective mechanics for realizing the possibility of a total System. In this sense, the end of philosophy in a self-referential system is included from the outset in Hegel's original definition of human-being as negating being, and it is simply a matter then of that basic contradiction between a negating self and a world conceived as objectively determined 'stuff' playing itself out through world history. The transformation of the world to suit human freedom extends the self so considered into the world through the universalization of the model of human being as negation. Marx did his homework when he made Hegel walk on his head,[22] effectively connecting the realization of self-consciousness to an actual, technological transformation of society and

the world, with that great interpreter of Hegel acting as a pamphleteer for the concept of negating freedom. However, Marx's critique is already immanent within Hegel's historicism, with the idea of history acting as both a logical principle—namely that freedom is undetermined being—and an animating impulse, such that freedom is not conceived idealistically as a rarefied soul substance, but rather as the spirit of becoming. This ontological position is consistent between Hegel and his interpreters, wherein the substantiality of worldly life is conceived in terms of change, at the center of which is a human spirit that is free to be conscious of this reality.

> *Atheism* as a denial of this unreality [of a transcendental order beyond the human, historical transformations of nature] no longer makes sense because it is a *negation of God* and through this negation asserts the *existence of man*.[23]

Here the essential leap of transcendental logic is immanetized, for if man is conceived as the power to negate the given, even his own given self projected in the form of man-made God, then the human being so conceived can only effectively act out against a human made world as a suicidal god, a familiar mythic trope—from Dionysius to Christ to digital video martyrs—however alien these archetypes may seem to the liberal logics of self-interested calculation that the spirit of freedom has differentiated itself into. Yet this is what remains of the hidden source of technological dynamism underneath the polished glass and steel surfaces of the System as such: the underlying essence of human-being as negativity, and the model of development through overcoming and negation that results—a progress that kills—is the dark side of modernity, too easily overlooked under the bright light of Enlightenment reason. The pyrotechnics of the Hegelian system and the firecrackers of its Marxist and liberal ideological variants distract from the violence that makes such systems vital, for in political terms the purpose of the Hegelian system and all its ideological progeny is to reconcile freedom with necessity. This is a way of rationalizing Rousseau's rather insensitive (for a Romantic) proposition that the State could "force people to be free"[24] by relieving them of their minority consciousnesses and other atavisms of distinction.

In that train of thought, the final negation must be the idea of the good itself as self-subsistent principle, for any substantive good is dissolved into contradictions when it is historicized and called upon to justify the necessity of suffering for the sake of progress. Nietzsche bore witness to this dark side of the dialectic when he observed that,

> How much blood and horror lies at the basis of all 'good things'![25]

What he saw behind the ideologies used to justify the use and abuse of power was a horrible nothing, an absence at the center of modern histori-

cal project experienced so acutely that it demanded changing the basic principles of thought.

The new logical principle of contradiction that resulted and that has thus far acted as the conceptual motor of modernizaton was first conceived against the principle of noncontradiction that had been fundamental to the structure of logic and the shape of reason in Western thought for almost 2,500 years since Plato, who argued that a being cannot be both itself and its opposite. According to this earlier pattern of thought,

> . . . true and exact reason, vindicating the nature of true being, maintains that while two things are different they cannot exist one of them in the other and so be one and also two at the same time.[26]

According to Plato a being is what it is and not otherwise because of its unchanging form. The changes and plurality of expressions of beings that we witness in the world are conceived as deviations from archetypal forms, and worldly beings are thus seen as imperfect representations of enduring ideas, with the source of being represented as being beyond the world and its changes. Philosophy for Plato is, in this sense a technique for thinking ourselves and other worldly beings outside of time by tracing the changes and plurality of worldly existences back to the unchanging eternal ideas that inform them. To think such thoughts about beings outside of time requires a divestiture of our bodily, mortal condition, or "learning how to die" as Socrates puts it in the *Phaedo*. In German Idealism the tension that moves through such ancient mystery teachings is put into effect as historical action, with contemplative striving relocated as a worldly dynamic.

The systems and antisystems of the German historicists represent attempts to recreate the scope and depth of that ancient experience of contemplation on the basis of knowledge secured within temporal, worldly life, rather than by orienting thought toward a transmundane beyond; that is, the German historicists from Hegel to Heidegger sought knowledge as it was enframed by the mortal condition. These worldly latter-day thinkers saw the essences of beings as beings—and especially the essences of human beings and of those things made by human beings—as changing modalities that unfold over time. So a being, defined as the being it is by the form it takes on at a moment in history—the boundaries between its being what it is, its being some other being, or not being—always contains its own opposite within itself in its potential to change. The potential of a being to be other than it is would thus have to include the formlessness of its non-being. Therefore, if one is to define a being, and especially a human being, in term of their historicity one must include a conception of nonbeing—the self's own otherness—as an essential, animating aspect of their being. What is true of any being in that it carries its nonbeing along with it in a potential to change

becomes in this sense self-consciously true for human beings, in that a living human being is distinguished by the internalized consciousness of his or her own otherness.

The unique contribution of historicism consists in this inversion of essences, such that the essence of a self-conscious living human being is deferred to their own essential otherness—defined by the certainty of eventual death, finitude, and negation of self. The reconciliation of opposites over time—of self and other, being and nonbeing, master and slave—is then understood as the work of historical progress, with the System functioning as the technology that makes those ongoing reconciliations possible. The idea of the System as an interrelated, self-referential whole is thus realized (i.e., it becomes a real, effective whole as opposed to an ideological part pretending to be a whole), at the moment when it comes to include its opposite, that is when the System based on the principle of contradiction—being acting toward its own nonbeing—takes on those echoing acts of negation and impulses toward auto-rejection as its animating principles. The only true, total system must, in this sense, be suicidal, with the drive toward the dissolution of the System acting as the penultimate expression of the System considered as whole, like the time code ticking down to death that is written into the biological code of all organisms, with the dissolution of the conditions for continued, shared existence acting to make the causes of common life that much more vital.

For German Idealism, goto "another side of the dialectic," page 95.

ANGELUS NOVUS[27]

> "A Klee painting named '*Angelus Novus*' shows an angel looking as though he is about to move away from something he is fixedly contemplating. His eyes are staring, his mouth is open, his wings are spread. This is how one perceives the angel of history. His face is toward the past. Where we perceive a chain of events, he sees one catastrophe, which keeps piling wreckage upon wreckage and hurls it in front of his feet. The angel would like to stay, awaken the dead, and make whole what has been smashed. But a storm is blowing from Paradise; it has got caught in his wings with such violence that the angel can no longer close them. This storm irresistibly propels him into the future to which his back is turned, while the pile of debris before him grows skyward. This storm is what we call progress."
>
> Walter Benjamin
> *Theses on the Philosophy of History*, §IX

The Angel of the New—the spirit of novelty—represented as a surrealist historical theology in which the religious animus is horrified wonder.

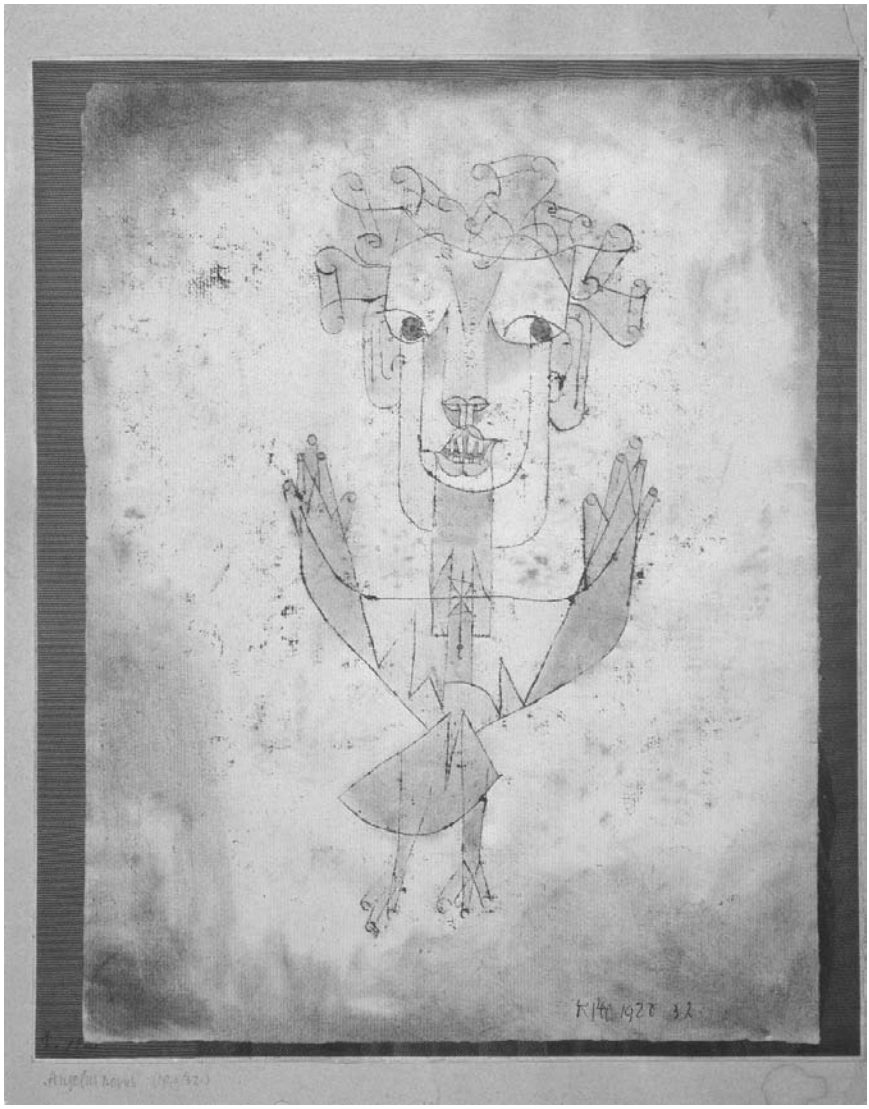


Figure 1.1.

The Spirit of history—a wide-eyed angel—is the perspective from which history appears as a whole, all in one view so to speak. The sequence of historical events is taken in by the spirit's backward gaze, not in the sense of all's well that ends well (as in Hegel's *Volkish* State, that organic mechanism for the legislative, juridical and bureaucratic management of mutual recognition) but rather in a recoiling from the past.

Here we find a historicized image of the reflexive turn and step back from the insistence of the present—blind to the future and with a retreating awareness of the past—that may be taken as a model of progress in our age of crises, and as a replacement to a late-modern belief in progress that can no longer be assumed as an article of secular faith. In terms of reflexive understandings considered outside of a faith in progress, a capacity for critical reflection depends on a momentary disjuncture between past and future. Historical injustices are reconciled with the spirit of freedom precisely in such moments of crisis, at which consciousness is caught between an unknowable future and a lost Paradise, weighing the uncertain redemptions of a remembered past and the compulsions of novelty, both of which appear in the form of saving graces. But, as in all forms of grace, the beneficence of the new cannot be considered (rationally at least) as a blessing given by necessity. Whatever the tragedies and apparent necessities of the past having happened as it did, the creative act thus stands out from the causal passage of events as free simply because it could have been otherwise; this is how the future is free also, in the sense that it cannot be known. There is redemption in this kindest dispensation of being human—a miracle in the face of seemingly inevitable disaster—though needing to be brought into fulfillment by a momentary lapse of memory and a break in the chain of causality.

For a humankind so redeemed, every moment of its history is worth forgetting, if we consider truth in recollection as a kind of unforgotten, cueing upon Heidegger's playful etymology of Plato's concept of truth as *a-lethia*. Beyond any strict correspondence between memory and event, the privative dimension of forgetfulness contributes a substantial sense of absence, while freeing action from the determinations of a sequence of causes and consequences.[28] There are whole modes of historical consciousness that are worth creatively forgetting, as in the various uses and abuses of historical consciousness to justify the suffering of peoples' lives at the slaughter-bench of history, to use Hegel's words, or the relief of conscientious responsibility claimed by world historical actors acting as possessed puppets of some supposed spirit of history, or the bearing of the past upon the present as fateful necessity (as in Machiavelli's inherited concession that "fate may govern half man's actions"). Rather, the possibilities of thinking the past and acting into the future cast a weight on every moment to bear the purpose of history. Every moment after the end of history is in this sense a Judgment Day, in that each self-conscious person must judge and reinterpret the unique social history that they themselves represent. Such a mode of historical recollection is obviously not a neutral accounting for and summing up of a sequence of past events, but is instead a kind of remembering that takes responsibility for the past into the present.

According to this view, promoted by Benjamin as a working critique of Hegelian history and its deterministic Marxist variants, the perceived se-

quence of historical causes is punctuated and brought into present consciousness by the existential clarity that attends crises, a clarity experienced in those moments when one is not only a witness to what is given but when critical recollection is moved by the spirit of history. In Benjamin's words:

> To articulate the past historically does not mean to recover it "the way it really was" (Ranke). It means to seize hold of memory as it flashes up in a moment of danger. §VI

With this late breed of worldly historicism—a perspective realized in action freed from the determinations of either a lockstep historicism or a romantic impulse toward lost authenticity—comes the understanding that one's specific capacity for and mode of reflection are involved in the history that is recollected. In much the same spirit Heidegger quotes Holderlin's poem *Patmos*:

> But where danger is, grows
> The saving power also.[29]

In poetry as in critical thinking, a sense of imminent danger alerts us to our belonging to history, i.e., that we are not merely passive spectators on the world but that our human being is at stake in what we witness. The bomb blasts of historical events can inspire either of these two sorts of existential effects: either shell shock or alertness. It is the numb complicity brought on by history represented either as a hymn to eternal present tense happiness or as a psalm to the necessity of action into the future that Heidegger and Benjamin both look to explode through the invocation of a regenerative historical consciousness. This is in effect a subverted version of the secular faith in progress characteristic of the religious spirit of high modernism after Hegel and his latter day prophets—the belief that the present is better than the past and that the future will necessarily be better than the present. Now that this faith is seen to have no basis in reason (unless one believes the clumsy sophists who insist that war is peace and that violent reactions against globalization are signs of progress) what public trust will replace the faith in progressive history?

For progress, goto "platitude #2," page 45.

APO-STASIS

apo-stasis, n. A falling away from faith. In the original Greek sense, it meant to withdraw from the world, that is a kind of spiritual detachment. Faith for the Ancient Greeks was a way of participating in the world by making spiritual attachments to worldly beings—to the sun, to water, to human qualities

of intelligence (Athena) and industry (Hephaestus)—that is a system of faith represented through a whole pantheon of manifest powers and worldly presences. This original sense of faith is far from that given by various Gnostic and fundamentalist political preachers today who advocate transcendence through various forms of death worship, promising passage for the loyal and obedient into an eternal ideal order in what is really a profound expression of lack of trust in others and in the world. In actuality the religious sects that have turned the powers of ecclesiastical social movements onto global politics in the vicious ways they have preach faithlessness in others and in the world to their thronging "nations of the dead," to quote as close to an approximation of authority on the subject as humanly possible, from myth.[30] For what can we trust in death? In the words of Homer's embassy from Hades:

> When we die, the sinews no longer hold
> Flesh and bones together. The fire destroys these
> As soon as the spirit leaves the white bones,
> And the ghost flutters off and is gone like a dream.[31]

What more reliable authority could be invoked on the subject of death afterlife but that of a ghost from ancient myth? Perhaps this is where faith is now lacking, not in a lost belief in a world after this one but in the absence of myth to make sense of dreams and waking life. The conspicuous absence of a public trust in manifest worldly phenomena is especially remarkable when one considers the decline of what was once a prominent secular expression of faith: the belief in the progressive emancipation of human beings through technological development. Even this worldly faith has in a sense gone Gnostic, or out of this world, in that instead of sharing hope in the rationalization of human relations within nature via technological science, the secular-religious masses look forward to the next systemic crisis and the threat of technological and environmental apocalypse as their culturally and existentially binding experience. Between existentially rich real times—a bombing, a blackout, a natural disaster, a flood—the passage of events is experienced as profane time, that is duration perceived as ongoing process: the neutral bored fulfillment of production and consumption; systems functioning; filler programming. Here the advancement from moment to moment is not portioned off in the tick-tock of the mechanical clock, but rather by a primal modulation between static noise and dull working hum, a digital reproduction of cyclical mythic time in which crises hold the beat. Yet can a sense of time with an existential basis in cycles of bored anxiety satisfy the needs of the human spirit?

The human instinct toward transcendence, to get out of one's skin and become a different kind of being through reflective self-transformation can

be understood as at the roots of both the time consciousness that distinguishes past from present from future as well as of religious experience, in the sense that both modes of being project into a not yet temporized realm of possibility. Yet if progress and religion are not to explode living human beings for the effect of the ultimate transformation—death and whatever may lie beyond life in this world—then that instinct toward transcendence needs a public trust to give it substance, a belief that can be realized in the form of a beyond to actually attach our shared hopes to. Faith in its most robust sense acts in this way as a fulfillment of sense: a bridge between the perceiving subject and a world of objects that become common items of care, whether they are given meaning by an ontological faith based in a pantheon of natural elements, or a singular creator god, or an eternal order of ideas, or the promise of technological development. Specifically in the closed environment of the technological system, a basis for trust can be found in an attunement to the fragility and transitoriness of the world, with faith acting as a shared, conscious, living form of participation in a world for which human beings are co-responsible. However, the same unsettling phenomena that could give rise to such a secular faith may also inspire a faithless flight from the world, with the historical crisis serving as a balancing point between these two sorts of religious experience—the worldly and the gnostic.

Fragility is inherent in complex systems, where the continued being of the system as a whole—whether it is an organism, an ecosystem, a planet, or a computer—is dependent upon the interrelated processes and exchanges that constitute it. Our technological system is especially fragile compared to natural systems such as bodies, ecosystems or planets in the sense that its systemic operations in the making ready of beings for integrated existences gives rise to their own reflex rejections. It is as if, in the very drive toward the control of contingency a tipping point is reached at which the sensible efforts toward redundancy and economy in the development of human organizations are perverted into planned obsolescence (with redundancy meaning to buy the same product many times), the inhumane management of human beings, and the global ordering of things in general. In the effort to control all possible outcomes at the margins of manageability, tactics tend in the direction of overkill while the sensitive cognizance of complexity is crowded out by unbending resolve to overpower a world in flux.

At this particular crisis and turning point in the world's history, after the end of metaphysics and its various faith-forms and at the beginnings of a truly global technological system it may be helpful to recall that according to its Ancient Greek origins krisis means an impending choice. In this there is a hope in danger itself, for the growing sense that our technological civilization is coming apart may mark a reflexive return to the world through

an orientation toward our original source of dislocation, that is toward the consciously-held uncertainty of the passage of time and the potential for a free, creative act that time so considered opens up. Thus the world, and not history, becomes (to bend Plato's meaning significantly) our moving image of eternity.

For transcendence goto "naked thought," page 90.

SHADOWS ON THE WALL

> Historicism gives the "eternal" image of the past; historical materialism supplies a unique experience with the past. The historical materialist leaves it to others to be drained by the whore called "Once upon a time" in historicism's bordello. He remains in control of his powers, man enough to blast open the continuum of history.
>
> —Walter Benjamin,
> *Theses on History* §XVI

Action is the real mode of deconstruction, one that works by disjointing a sequence of historical causes otherwise frozen in a static image of history as seen all in one view. As the act itself is crystallized into its symbolic significance—i.e., what it represents—the perspective on the act takes on a new reality. In this sense the material power to intervene in the *if-then-goto* lockstep logic of historicism consists in the technological capacities to represent events (through printing, photography, film, and now digitization) and in so doing to reconfigure mass audiences and collective perspectives. Those manufactured worldviews can be framed either as passive spectatorship or as active participation in history, depending on the situation of historical consciousness within the mode of reproduction, that is according to subjects' reciprocal relationships to the mass media that constitute their collected perspectives. Or, if we adapt Benjamin's conception of historical materialism to our present moment of digital reproduction, it is a question of whether we download or upload our worldviews.

For worldviews, goto "being on tv," page 72, or "world on edge," page 92.

HISTORICAL MATERIALISM UNPLUGGED

The Turkish Chessman—a magic-seeming chess-playing machine built in 1769 that astonished spectators by beating human players, including Napoleon. Really though, the so-called "robot" was simply a puppet, con-

trolled from the inside by a hidden, hunchbacked human player—the real spirit in the machine.

The hidden operations of electronics, the silent whir of a hard drive and the almost intangible traces of circuits on a computer chip have filled in the imaginative vacuum created by the progressive demystification of mechanical technologies. Yet were spectators really so astonished when a real machine, Deep Blue, managed to beat chess grand champion Garry Kasparov in several games (though Kasparov won the match and rematch)? Or was this simply a contest between a chess champion and a team of IBM engineers who had compressed their thoughts and anticipations of possible permutations of moves into computer chips, and against whose logic and algorithms Kasparov's creativity and flexibility in play just barely managed to win?[33]

The transmission of force and the mysteries of hidden operation are outward signs of animation, and their motions both reveal and conceal the human spirit inside of the machine.[32]

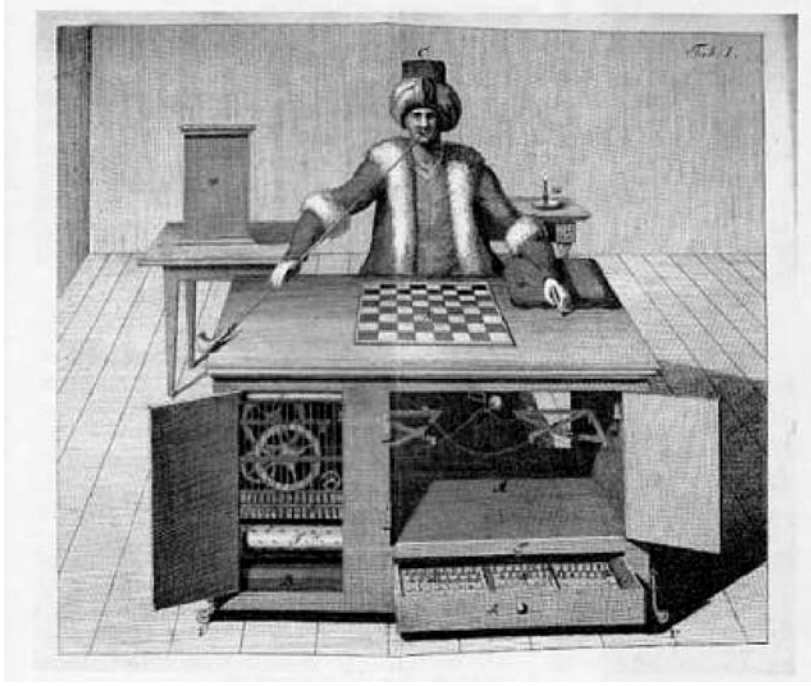


Figure 2.1.[33]

For the human as operator, goto "black-box," page 57.

MULTITASKING OUR MINDS

The projection of technology as an externality, as an inanimate shell intended to protect its blood-pumping, air-breathing, reproducing human viscera is useful to the end of keeping human beings safe inside of the machine. But in this relationship between human beings and their protective prostheses it is important to be aware of the metaphorical likeness that shapes each in the image of each. For as we see technology as an extension of human functions, performing routinized or dangerous tasks for us, similarly we in turn appropriate technological functions to open up a reflective distance on our own operations, such that thinking may be conceived of as computing, remembering as data retrieval, and willing as cost-benefit calculation. As an externalized metaphor for human functions, technology shapes our self-consciousness by providing a self-made image of ourselves that mirrors our values and the life processes that inform them. The technological metaphor has perhaps the most powerful effect in shaping the way we think about thinking itself, for here the human function attains a fluidity of possible expressions that both demands a metaphor to make sense of the hidden operations of mind, while also allowing for significant shaping of these functions.

This plasticity of thinking and the potential for reshaping it are heightened when we consider what is perhaps the most plastic thought, that is the idea of the good. How do we know what is good, and how does one judge when one is doing good in the world? Increasingly, such judgments are informed by a sense of time, such that the good is identified with the new and doing good with doing it fast, whether the "it" happens to be making a pair of shoes, or sending a message, or winning a war, and regardless of the fact that the thing done quickly may never be really done—i.e., the shoes will wear out and be replaced, the mass e-mail bounced back, the same old war started over again and again and again. In this end time of accelerated means without ends the technological conception of time as progress has turned in on itself to create a sense of time as process, and from this particular sensory intuition of time comes an overarching idea of change without end (like war without end, or politics as entertainment).

This new species of change for the sake of change is cultivated in a certain kind of love, that is love experienced in the absence of given ends. *Amor fati*, or love of fate, is how Nietzsche expressed it: objectless desire that decenters the self as subject from a governing conception of the social, legal subject as the privileged consuming and servicing agent at the center of a network of exchanges. Given the antimetaphysical bias of the capitalist society that is held up as the world's model, and to the end of preserving a global economy within which all exchanges are considered as equal, so long as one has credit to insure the exchange against future default, at the

heart of economic development and beneath whatever ideological superstructures may be used to justify the "use and abuse of history for life" are the appetite for novelty and the compulsion toward strongly felt desires, whatever these desires may happen to be attached to at any particular moment. In such substructural dispensations it is the undetermined future that stands in as the substance of the exchange: when one borrows on credit, one intuits that although one cannot guarantee the ability to pay in the future, one can at least guarantee that there will be a future, that at the very least one (or even more speculatively, one's next of kin) will be capable of defaulting on one's loans. In a world of 10% bank reserves, "Don't pay till 2000 and __," and digital currencies that go off with the lights, the indeterminacy of that future acts as the source of the vitality into the present, with every moment of substance and value coalesced around a wager on the unknowable.

The speculative quality of value in an electronic economy thus accrues worth and substance to what may be at the expense of what is. The economy is driven by synthesized desires and speculative flows of capital, even within markets for the most substantial, earthly-seeming commodities like minerals and oil, such that the measure of worth is generated from the probability of future exchanges, with the thing itself standing in as a cipher for its potential futures.

This new system of valuation and the time consciousness that makes it possible result in both a remarkable intensity and an extreme shortness of attention undistracted by traditional attunements to enduring, human purposes. The new time-sense ratio brought on by technological acceleration functions to abolish time in order to master space, with the end of duration via speed acting as a necessary condition for dominion over the earth. Without a stable locus at the end of development—that is an idea of the good guiding change—time sense collapses into a series of moments, nows that needs no justification, so long as one is involved in the now and so long as the now keeps changing.

The compressed attention that characterizes this new time consciousness is exercised in multitasking, a new faculty useful for functional living in a technological society. Young people are especially good at it, having not been trained into the habits of prolonged, singular attention, as older generations were. The ruling technological elite has also acquired this new set of habits: cellular-phone addicted drones humming in their isolated cubicles and buzzing through international airports, plugged into networks of interconnected processes and people. The kind of mastery exercised within the technological order of things requires a redirection of focus from one person and process to the next, reciprocally integrating the self into the system while effecting systematization by shifting attention from node to node. The multitasker moves from one phone conversation to another on

hold (the hold-feature has become common on household as well as business phones), while network browser, e-mail manager, streaming music player and word processing applications run simultaneously. The social function of the multitasker is to keep all of these processes going, while linking them into one fluid process, like a plate-spinner.

Or like a nomad. The shift from end-oriented action to process-oriented function matches the dynamic social organization of nomads, moving from one place to the next rather than investing energy in the cultivation of one spot. This comparison has been suggested by Tsugio Makimoto and David Manners in their book *Digital Nomad*,[34] but like most technohype, they go too far through wild extrapolation into the future. The authors imagine the entire population of the globe as entrepreneurial nomads, linked only by cell-phones and laptops—a far-fetched proposition, given those attachments to places and commitments to people that set the shape of our worldly wanderings. In a global capitalist economy the freedom to move at will exists not as a general condition paralleling the relative freedom of the electric ciphers of capital but rather as an index of class power. The ability to live basically wherever one wishes and to travel freely over the globe is still a social privilege relative to economic inequalities. While some share the same mobility enjoyed by investment capital—the locus of value in the global corporate economy—some others are stuck within fences. Territorially bound identities are now the symptoms of unfreedom and the hobgoblins of oppressed peoples, whether they are stuck in ghetto slums or refugee camps or fenced-in retro-states. If new, nonretrograde forms of identity are to emerge based in free association then their territorial basis will be of crossing ground; that is, the freedom to leave and to return:

- Freedom is the freedom to stay at home or go out in public.
- Freedom is the freedom to change one's home and visit another country.
- Freedom is the ability to move over the surface of the planet, the dream of cosmopolitanism[35] made possible by global travel networks, but interfered with by borders, checkpoints, barbed-wire fences, minority ghettos and gated communities, refugee camps and roadblocks.
- Freedom is the reflection on and stepping back from seemingly inevitable disaster.

For time consciousness, goto "history is an act gone walking," page 43.
For economics, goto "the hopeful science," page 46.

NOTES

1. That which consists of, in a basic sense, "ta genomena ex anthrowpown" those things brought into being out of human beings. Herodotus, *The History*. 1.1

2. On the incongruity between the competitive and monopolistic dynamics of capitalism, see V. I. Lenin. *Imperialism, The Highest Stage of Capitalism* (Moscow: Foreign Language Publishing House), 20–46. On the liberation of capital via the subjugation of colonies see J. A. Hobson, *Imperialism* (Ann Arbor: University of Michigan Press, 1967) especially 71–94. On the domestic economic crises arising out of an accumulation of value, including paradoxical crises of immiseration and overproduction, see Ernest Mandel, *Marxist Economic Theory* (London: Merlin Press, 1968) 132–74; and Paul M. Sweezy, *The Theory of Capitalist Development* (New York: Monthly Review Press, 1942) 133–234. At the root of these various tensions within capitalism as an organizational system is Marx's prediction that with technological development under competitive conditions the rate of profit will tend to fall. See *Capital III*, Part iii (Moscow: Progress Publishers, 1971). In itself this tendency would seem to promote a progressive equalization effect of technological development, though in a profit driven economic system it is the reactions against this leveling tendency that give rise to the social and ethical crises of capitalism.

3. . . . except perhaps to make fish tanks out of them.

4. Tim Berners-Lee and Mark Fischetti, *Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web by Its Inventor* (San Francisco: Harper: San Francisco, 1999)

5. http://www. carleton. ca/banner/general/about/basics. htm (14/10/03)

6. " . . . the critique which goes beyond the spectacle must *know how to wait*." Guy Debord, *Society of the Spectacle*, §220.

7. For an autobiographical account of the demands of living inside of technology written by a software engineer, see Ellen Ullman's *Close to the Machine: Technophilia and its Discontents* (San Francisco: City Lights Books, 1997). Here is Ullman's description of the twisted sense of time she experiences:

> I have no idea what time it is. There are no windows in this office and no clock, only the blinking red LED display of a microwave, which flashes 12:00, 12:00, 12:00, 12:00. Joel and I have been programming for days. We have a bug, a stubborn demon of a bug. So the red pulse no-time feels right, like a read-out of our brains, which have somehow synchronized themselves at the same blink rate. [24]

. . . a first-person insight into the compressed, repetitive qualities of digital time consciousness, where succession is marked off by nondiurnal modulations between an electric on and off.

8. The intractability of the abortion debate is a sign of a basic inability to answer the question <*What is a human being?*> within the framework of technological thinking. The inability to answer or even to really ask this fundamental question can be traced to the fact that it is technology rather than given nature that sets the limits of our being and our potential for becoming. Those new technological powers incline toward an understanding of the self as a shifting locus of ongoing processes of self and social transformation. The human being so conceived becomes a fluid entity capable of self-induced metamorphoses, made newly possible by the technical capacity to engineer, control, and change the nature of human life at its origins.

A similar inclination toward self-transformation is peculiar to mythic societies, where the practice of infanticide is also common, not only for practical reasons based in economic limits on social growth, but in more self-conscious terms because the child is not considered to be a full human being until later in life, after

they have passed through various rites of initiation. The technological and mythic attitudes converge at this critical ontological juncture, at which only an embryonic film of ritual culture separates human being from becoming.

9. *Beyond Good and Evil*, §301.

10. *The Advantage and Disadvantage of History for Life*, §5

11. A snowstorm in June of 1816 dropped a foot or more of snow on the ground in Québec City, killing crops and freezing ducks in ponds. Another unpredictable outcome of the volcano's explosion and of the year without summer that followed was the story of Dr. Frankenstein's monster, a bastard child of technology forcing a confrontation with the unintended consequences of the mastery of life by science. Mary Wollstonecraft Shelley wrote her new Enlightenment myth while she and Percy Shelley and Byron and a few others spent part of that cold, soot-blackened summer at an extended house party in the mountains near Geneva, the atmosphere of which brooded a foreboding sense of apprehension. We can read *Frankenstein* as a cautionary story concerning the technological imperative, particularly of the drive toward the technological control of reproduction. Victor Frankenstein desires a creation that will "owe its being entirely to him"; but human beings, and perhaps even beings as such, have ways of resisting the monopolization of vital creative energies. Specifically, the Monster resisted by demanding a mate, that is, he wanted to reclaim the spontaneous power to reproduce his being into the future. This projected form of desire is an expression of the fundamental desire of all living beings to be, and at a deeper level, of the enduring being of beings as such.

12. Slavoj Zizek, *The Abyss of Freedom*, 11.

13. Eric Partridge, *Origins: A Short Etymological Dictionary of Modern English*, (London: Routledge, 1959)

14. F. W. J. von Schelling, *Ages of the World*, 123.

15. G. W. F. Hegel. *The Phenomenology of Mind*, (J. B. Baillie (trans.) 79.

16. *Ages of the World*, 181.

17. *Ages of the World*, 119.

18. *Ages of the World*, 174.

19. *The History*, 1.1.

20. *Phenomenology of Mind*, 93.

21. *Reason in History*, Robert S. Hartman (trans.) 12.

22. *Phenomenology of Mind*, 87. Hegel's qualification of natural science as "naïve" for attempting to all at once "walk on its head"—that is to take the world of objective necessity as its subject—can be interpreted as a preemptive defense against both Marx's critique and his attempted inversion of idealism.

23. *Economic and Philosophical Manuscripts of 1844* in *Writings of Young Marx on Philosophy and Society*, 314.

24. *The Social Contract*, I. viii

25. Friedrich Nietzsche, *On the Genealogy of Morals*, Carole Diethe (trans.) (Cambridge: Cambridge University Press, 1994) 2. 3.

26. *Timaeus*, 52c.

27. *Paul Klee,* "Angelus Novus" *(c.1921). © 2008 Artists Rights Society (ARS), New York/VG Bild-Kunst, Bonn.*

28. Intervening between optimism and pessimism in a play of opposites, Heidegger's suggests that in order to understand what is truth: "What is first required is

an appreciation of the 'positive' in the 'privative' essence of *aleqeia*." Martin Heidegger, "Plato's Doctrine of Truth" in *Pathmarks*, (Cambridge: Cambridge University Press, 1998), 182. This unique dual understanding of truth and memory as "unforgetting" allows for diverse patterns of retrieval, reversal, growth and decline by suggesting that forgetting is also a way of knowing, inasmuch as what is forgotten provokes a sense of loss, and so becomes present in its absence.

29. Martin Heidegger, "The Question Concerning Technology," William Lovitt (trans.) (New York: Harper, 1977) 34.

30. *Od*. 11. 667. Stanley Lombardo (trans.)

31. *Od*. 11. 220–4. Stanley Lombardo (trans.)

32. After its secret workings were revealed to European audiences, the Turkish Chessman briefly toured the United States, where numerous imitations, rather than enlightened public opinion, soon made its operation unprofitable when measured against the wages of a willing hunchback or legless chess player. The machine played its last game in Havana before it was destroyed by fire in 1854 at the Chinese Museum in Philadelphia.

The automaton provoked a flurry of imaginative reasoning on both sides of the Atlantic, with speculations cycling between assurance in the potential of machines and the insistence that the sometimes irregular movements of the chess player must be the product of the human mind. See W. K. Wimsatt, Jr., "Poe and the Chess Automaton" *American Literature*, Vol. 11, No. 2 (May, 1939); Edgar Allan Poe, "Maelzel's Chess-Player," *Southern Literary Journal*, (April 1836); and Charles Siebert, Jaron Lanier, James Bailey, and David Hillel Gelernter, "Our machines, ourselves" *Harper's Magazine*, May 1997. Beyond the mechanical imagination and the various schema of magnets, strings, transparent gauze and mirrors proposed as explanations, in all instances the mystery of the halfway-automaton caused spectators to go looking for the human mind inside of the machine in an insistent, reflex reaction toward technology. In the absence of a visible operator, this sentiment of purposiveness in the motions of a machine in effect reproduces the argument for the existence of God from intelligent design, here applied to human intelligence.

33. Engraving from Windisch, K. G., "*Lettres de M. Charles Gottlieb Windisch sur le joueur d'echec de M. Kempelen,*" (Basel: ca.1783).

The Interactive Media Systems Group at the Vienna University of Technology has designed a virtual version of the Turkish Chessman consisting of an electronic cabinet that projects holographic displays of the Chessman, of the hidden player in the box, and of the game itself, played by a virtual, disembodied hand of the viewer. Both the mechanical and the electronic versions work through the transmission of forces, from human hand to mechanical puppet via wires and gears, or by pattern recognition optics from human hand to holograph. The key difference is that whereas the original machine hid its human operator behind mirrors and mechanics, the contemporary holographic version fulfills an illusion of complete transparency, giving the spectator an externalized sense of self by placing them in a perspective that puts them literally out of their skin. http://www.ims.tuwien.ac.at/~flo/vs/chessplayer.html

34. (New York: John Wiley & Sons, 1997).

35. In Kant's words, the principle of cosmopolitanism is that" . . . the right to visit, to associate, belongs to all men by virtue of their common ownership of the

earth's surface; for since the earth is a globe, they cannot scatter themselves infinitely," [*Perpetual Peace: A Philosophical Sketch*, Ted Humphrey (trans.) (Indianapolis: Hackett, 2003) 16.] Here the community of humanity as a whole is enframed by its earthbound condition. In other words, the realization of the idea of a global community has the practical requirement of the right to move freely over the planet—universal mobility rights—a liberating, hopeful and dangerous new technological potential.

2

From a Posthistorical Worldview

. . . ideology was like a set of enormous wheels at the back of the stage, turning and setting in motion wars, revolutions, reforms. The wheels of imagology turn without having any effect on history. Ideologies fought with one another, and each of them was capable of filling a whole epoch with its thinking. Imagology organizes peaceful alterations of its systems in lively seasonal rhythms . . . ideology belonged to history, while the reign of imagology begins where history ends.

The word "change," so dear to Europe, has been given a new meaning: it no longer *means a new stage of coherent development* (as it was understood by Vico, Hegel, or Marx), but *a shift from one side to another*, from front to back, from the back to the left, from the left to the front. . . . Imagologues create systems of ideals and anti-ideals, systems of short duration that are quickly replaced by other systems but that influence our behavior, our political opinions and aesthetic tastes, the color of carpets and the selection of books, just as in the past we have been ruled by the systems of ideologues.

Immortality, Milan Kundera[1]

TRANS-HUMUS

Hence it is not in the least superstitious, it is even a counsel of realism, to look for the unforeseen and unpredictable, to be prepared for and to expect "miracles" in the political realm. And the more heavily the scales are weighted in favour of disaster, the more miraculous will the deed done in freedom appear; for it is disaster, not salvation, which always happens automatically and therefore must always appear to be irresistible.

Between Past and Future,
Hannah Arendt

For humankind to take possession of the earth as its own is to fulfill the "sweet dream" of cosmopolitanism,[2] that is the making of a world citizen, not in the sense of the homogenization of the earth's population (for human beings tend to gather in clusters, partly and perhaps fundamentally out of an enjoyment of sharing space with others), but rather through a making ready of the world for human habitation and travel. Mountains, rivers, oceans, and continents are no longer determining obstacles against human traffic, but rather given advances in the technologies of travel the remaining barriers to human movements are for the most part political, economic, or cultural, that is human-made in their origins. Cosmopolitanism—the freedom of human beings to move freely over the earth—is presently a real technical possibility, though the question remains of how to make it publicly acceptable for the global masses to lay common claim to the planet, realized as humankind's concrete universal.

If the question is considered in cultural terms, then the limiting conditions of human movement can be taken as the bonds of hospitality to visitors, travelers, and immigrants, as in: what is owed to the stranger at the door? Here we can take a cultural cue from early Hellenic civilization with its loose maritime federation of autonomous island-cities, all held together by a code of hospitality toward strangers, a code that defined their sense of a common humanity and made possible their Mediterranean wars and travels. For the Ancient Greeks, it was this recognition of otherness afforded in hospitality toward strangers that constituted their identity in the basic sense of being like others.

The story is told of the Cyclopes, "lawless savages"[3] who knew no code of hospitality, but lived outside of the bonds of civilization and who were as happy to eat their guests as to greet a stranger. The inhumanity of the Cyclopes—their one-eyed monster status—is for Homer and his ancient Greek society of travelers a sign of their lack of conscience of the humanness of others, for it is in the recognition of the other as human that one's own humanity is confirmed. Once this baseline recognition is agreed upon then the passage toward reflective self-knowledge can unfold through the sharing of stories, with self-knowledge dependant upon the web of relations within which our personalities are situated. A human being without a story to tell or someone to tell it to is thus hardly a person at all. Odysseus' reproach to the monster that eats his friends is in this sense telling; rather than curses or cries to the gods, Odysseus asks how the Cyclopes can ever expect company again:

> But you are a raving
> Maniac! How do you expect any other man
> Ever to visit you after acting like this?[4]

The emphasis in this humane rejoinder to a homicidal maniac is telling. For according to the Ancient Greek cultural sensibility a life lived alone, no matter how affluent and secure, cannot be called happy (though minus the cannibalism and in a different geographical context, the pastoral yeoman lifestyle of the Cyclopes—"ruling their own" and "ignoring each other"[5]—seems to approximate the founding American dream of independent existence <"*Life, liberty and the pursuit of happiness*"> in a kind of mythopoetic, socio-pathic version of Thoreau on the Mediterranean).

The action in the *Odyssey* largely happens at the ports and promontories between land and water where Odysseus is greeted in various ways, some more hospitable than others. Here, in these greetings we find the origins of Ancient Greek civilization in myth, beginning with two broken federations scattered to the sea by a horrible war. The ruined armies—victors and defeated alike—would morph into a rough collection of itinerant wanderers trying to find their ways home from Troy and invited in by scattered island dwellers who longed to hear their stories. The story of those stories of war and of homecoming, through repetition and eventually codification in Homer's collection and written recording of oral traditions, would act as the founding myths of the Greeks and as a compendium of their cultural knowledge—from boatbuilding to weaving, archery to carpentry, war to filial love. Although the retelling of these constitutive tales required a common context of understanding—a shared Greek language at least (something apparently possessed by the Cyclopes even)—beyond this basic precondition of the possibility of communication, the cultural accoutrements of early Hellenic civilization were as fluid as the Mediterranean Sea that framed their common understandings. The effective gods in Homer's cosmos for instance changed depending on the locales with the *Odyssey* replete with local deities each with their isolated hangouts, like the nymph Calypso hiding in her cave, or the sun god Hyperion's island ranch. The many manifestations of the sacred seemed to have raised no fundamental ontological or theological dilemmas for the Hellenes, no impasses of a universal God suffering from disrespect and divided being. Quite the contrary, these early worldly travelers seemed perfectly willing to offer respectful sacrifices to the gods of the lands in which they found themselves.[6]

What did define this ragtag band of refugees, halfway-reformed pirates, and homesteaders that were the Ancient Greeks as a civilization was not so much a hierarchical pantheon of gods, nor established cultural icons (the Olympics would not be invented for about 400 years after the impromptu races and contests on the beach described in the *Iliad* and *Odyssey*),[7] nor a universal legal code, nor a recognized central authority, but rather the bond of hospitality felt toward strangers. In this unifying ethical principle, what

made the first Greeks Greek was also what made them human—that is their recognition of the other as a being like themselves, no matter how disfigured, salt-encrusted and frightening the stranger may seem. In the civil and still instructive words of the young girl Nausicaa:

> At the world's frontier, out of all human contact.
> This poor man comes here as a wanderer,
> And we must take care of him now. All strangers,
> All beggars . . .[8]

Though the formal workings of her ancient heroic society may have been codified by reciprocal relationships among fellow citizens and allies—through the tit for tat giving and receiving of gifts, fulfillment of pacts and promises, and translation of words into deeds—enframing the possibility of those particular civilizational codes and ceremonies, "at the world's frontier" there existed an original sympathy for the other based upon an intuition of the fragility of the human condition. For we all know what it is like to be lost in the world, irrespective of our particular hopes for returning home.

A profound respect for humanity as such is made sacrosanct in Naussica's sympathy by an intriguing idea (repeated in the *Odyssey's* climax and since then co-opted by monotheistic religion) that a god could come unrecognized in the disguise of a beggar to test our capacities for care and sympathy. This mythic trope expresses a worldly faith in the mystery of divine manifestation that preserves the sacred in the human community; for given the possibility of the sacred making its embodied appearance, the only polite way to reciprocate a host's welcome would be through a mutual recognition of the holiness of the human. Thus Odysseus answers Naussica's hospitality with this promise:

> Grant that I see my homeland again.
> There I will pray to you, as a god,
> All of my days.[9]

A passage to which Nietzsche brings what I would suggest is an unnecessarily transcendental death fixation when he interprets it as:

> One should part from life as Odysseus parted from Nausicaa—blessing it rather than loving it.[10]

Whereas in truth death has very little to do with Odysseus' worship of a living woman or Homer's humanistic theology in general: Odysseus is grateful to Nausicaa because she took him in and brought him back to life, and so promises to worship her as a god for the rest of his life precisely because he is still living. The dead on the other hand do not need gods or lovers or reverence for the divine in motion that is life because the world of the dead has

settled into eternal dreams. The world in which we live rather is a world in motion, in which homelessness is a possibility coeval with the human condition, made livable by the respect given to the other who may be oneself—that is the human being as a god in hiding.

For the Cyclopes, goto "self as phantasmagoria," page 72.
For the earthly condition, goto "world on edge," page 72.
For homesickness, goto either "transhumant," or "the imperial perspective," page 113.

TRANSHUMANT

A man I met on the train from New York to Montreal: an oil rigger, though the image of an oil-covered man working in a North Atlantic storm fell short of reality. He was a perfect technological nomad, having worked in the Hibernian oil fields off the coast of Newfoundland, but with computers on a climate-controlled part of the platform, in deserts and in jungles; inside a compound guarded by mercenary foot soldiers in Indonesia, earning danger pay for laptop-armed reconnaissance missions into the deserts of Liberia. He told me how he had learned to fool the oil company's drug tests by drinking vinegar, though he took the threats of authoritarian regimes more seriously than corporate rules, and had trouble enjoying a beer in an underground bar in Yemen. He worked as he liked, taking off long chunks of time, and having just run out of money after a year of partying around the world—Trinidad, Cuba, and the night before, New York where we had gotten on the train together—he was going back home.

For nomadism, goto "the post-modern architecture of the mind," page 50.

ON A SECOND-HAND GREETING: "WELCOME TO THE DESERT OF THE REAL"[11]

It is tempting, in considering this place to which we are being greeted, to think of "the Desert" as foreign terrain, as outlands beyond the irrigated oasis of our orderly technological civilization. To do so, however, would be to engage in a rather exclusionary and unself-conscious mode of interpretation, since there are of course deserts within the so-called "developed" world also: Jean Baudrillard illustrates as much in his *America* when he identifies the deserts around Los Angeles, Las Vegas and Salt Lake City as archetypal landscapes for a new imperial technological civilization, the topography of which is demarcated not by borders, but by centers within horizons of technical possibilities.

Bracketing the desert in Zizek's title for a moment, and focusing on "the real," the greeting here is not simply to reality but to the real. The definite article assigns a unified identity to reality as such, as if reality could be specified and pointed to, as in "There is the tree," or, "There is the bulldozer." The "the" represents an attempt to enframe the stuff of existence by identifying it as a specific entity: as a being that stands out from the general field of possibilities that is its unsymbolized environment. What is meant in this peculiar mode of expression is that the real delimits the boundary of that systematic order of human artifacts that we call technology. The real thus functions in Zizek's usage as an epistemological doppleganger to the *verum factum* code: that we do not fully know what we have made, with the real making its reappearance via feedback from the modes and media of its own dominion.

What opening remains for the other who can speak its own name and purposes within the solipsistic logic that is at the core of modernization via technology? To know a being in historicist, Hegelian terms requires knowledge of its opposite, since historicized beings are conceived as syntheses of contradictory moments. So to know the undetermined real is, in this sense, to register those subsumed irruptions and glitches in the system that arise from out of its integrated existence. The real is thus conceived not in terms of a passive formlessness of the Other, a traditional though amorphous category of as yet unformed being, as in Plato's conception of "an invisible and formless being which receives all things and in some mysterious way partakes of the intelligible, and is most incomprehensible."[12] Yet the mythic cosmogony according to which Plato imagined an ordered cosmos coming into being through some mysterious union of active form and passive chaos need not be presupposed if the whole that we witness is brought into being by human beings. The sense of the real that subsists is thus not some stable remnant that hasn't yet been touched by technology, but instead makes its appearance as a product of the historical dialectic working past its end.

To take as an example only one such overreaching effect of technology, Osama Bin Laden is not an incomprehensible Other—"the Terrorist"—but is in himself and in what he represents a product of technological civilization: a reactionary excess against the excesses of technological ordering. If S.11 revealed the real subsumed within the global technological system, the real returning as its own semblance in the spectacular act in a kind of special effect of Hegel's cunning of history—what was revealed was a surreal real—reality as an irruption out of overdeterminations within a technological order. This is reality conceived not as passive, formless matter, but rather as the real that represents itself in spectacular acts, two opposite though ontologically bound potentials within a divided global system.

In a much more moderate, tentative voice than Zizek's psychohistoricized modernity George Grant asks, "Is there some force in man which will

rage against such division: rage not only against a subjectivity that creates itself, but also against our own lives being so much at the disposal of the powerful objectifications of other freedoms?"[13] The rage expressed in the S.11 attacks register a clear "yes" to Grant's question: a yes against the subjectivism of life within the technological system, along with the powerful, political objectifications that make those subjectivized freedoms possible. Stripped naked by technology and out of a sense of purpose that is both nonobjective and beyond the calculation of subjective self-interest, a bomb hidden on a person stands in for a lost essence—ultimate meaning versus systematic meaninglessness—with metaphysical purpose reduced to its bare essence as an antithesis to the life world. If, as Heidegger argues, technology is the working out of metaphysics, an historical development that he conceived as a systematic ensemble of anthropocentric ideals imposed onto the world, then that process now appears to unfold between these two polarities: between totalizing integration and spontaneous autodestruction, with the thrusts and counter-thrusts of modernity functioning as conditioned reflexes to confirm one another.

The technological management of things thus alters both the environment and the human sense of it, shifting perceptions of the Big Other away from the early modern conception of nature as externality—an attitude first articulated by Machiavelli when he described the natural environment in terms of *Fortuna* as a realm of happenstance and often hostile chance, like a river in flood—and toward a post-modern conception of the Other as a reactive component within a system of our own making, in which we confront the unintended tangents of our actions. Heraclitus observed that "Nature loves to hide." Now it seems that the element of the unknown subsisting within the flux of nature and animating its cycles can also be witnessed within the technological order of things, such that even as the instruments of dominion over nature are integrated into a systemic whole the undetermined remains in the form of the unanticipated consequences of technology.

The possibility of choice here arises out of the ongoing, irreconcilable systematization of order and chaos, which leaves open interstices between opposites held together—like the gaps between electrons and a positively charged nucleus within an atom—and it is in these spaces of indeterminacy that thought and action are freed as programmed possibilities, as an electron traverses its levels of electrical potential by modulating away from and toward the core, with the actual location registered only as a probability within a set of probabilities. Here we have what would have been Hegel's worst nightmare, a "bad infinity" in the form of a strictly immanent, nontranscendental history: a life after the end of history in which chaotic eruptions from within the system become the historical animus, alternating between noiseless operation and explosive energies.

One must be clear that an attunement to such an immanentized history driven by hybrid internal antagonisms should not be taken as a justification of the antagonistic elements in themselves. Understanding is not necessarily, as Hegel insists, a rationalization of the vicious events on which history turns. Historical events and persons cannot also act as their own interpreters; and even the memories of the immediate present are too long (in boredom for instance) for the kind of total manipulation of image that such a hermetically sealed, spin-doctored history would require. So the question always remains: what unrealized hopes will the ruins of our civilization inspire? If we take ancient ruins as examples, contrary to Hegel not all that accumulates is the product of negation (e.g., soil strata and ivy growth do not destroy but add to the monument) and not all negation is cumulative (i.e., forgetting is always a possibility).

As a prelude to a genuinely political, responsible re-creation via recollection, an end of history liberates action from overarching historical determinations by effectively trivializing principles through their rigid application—digitizing concepts into infinitely repeatable archetypes and commonplace, trinket rosaries for the consumer spirit. Confronted with the desertification of public spaces and an abandonment of public trust to choice-neutralized market systems of distribution, new desires for an authentic public life and for meaningful free choice arise out of the global crises of capitalist valuations. Here the manifest uncertainties concerning the sustainability of the particular technological system that is the global economy potentially open the way to a recovery of the original sense of political action as a pubic performance into an indefinite future of possible interpretations. What is needed though in order to salvage this capacity for reinterpretation and so free the future from reactionary positive feedback loops—<*You're evil! Yes, you're evil!*>—is to get beyond the notion of the necessity of progress, both in order to clarify the crises of our time and to accentuate the responsibilities that go along with living in a world of our own making. If the idea of a "spirit of history" that is called upon as justification by those political figureheads that Hegel calls world historical individuals—the Ceasars, Napoleons, Lenins, and Bushes—is revealed as a secular form of superstition, then perhaps progress need no longer turn on the hinges of violence, bringing order to an unwilling world for a future accepted on faith.[14] It is either this hope, expressed by Zizek in terms of "the impossible act"—"breaking out of the vicious cycle of the System"[15] or the likelihood of a further descent into the already prevalent mythic worldview according to which global politics is perceived as a ritualized, iterant exchange between the dual potentials of exact reason and autorejection ongoing into perpetuity.

And yet, even this kind of "bad infinity" may be considered preferable to an ideological frog march to the future, legs dragging and pulled at the arms by technocrats doing crowd control. For the compliance to order demanded

in the rationalization of politics might well kill a living being, like an insect pinned down under glass. In this sense the struggles against integration may be as vital parts of life as is the need for organization, where in the absence of a transcendentally derived separation between the one and the many it is a tension between the respective drives toward organization and individuation that creates an open potential within which action can occur and across which imaginative thought can jump.

As spatial perceptions and perspectives are compacted and the globe is encircled in a web of interconnections between factors of production and the commodities to be consumed—integrated to the point of instantaneity in the case of the information that is increasingly the global currency of exchange—what becomes increasingly apparent is that integration does not seem to require the homogenization of the earth's population, as others have insisted.[16] The point is rather that any place on the globe can be brought into connection with any other place—in potential. It is not that everyone in the world has a cell phone, but that a cell phone could ring anywhere, that any place can become a center in the global technological order. This is progress beyond progress within the horizon of technological capacities. The question here is what kind of coverage the networks have: <*Can you hear me now?*> Technological change in the twenty-first century is thus not the work of settlers plowing away at the edges of nature and fighting to hold the frontiers, but presses on within the context of an integrated field, moving inward toward centers of resistance, bringing technological coverage down to the level of the smallest chaotic reactions, which in turn serve a vital function as engineered others.

For Heraclitus, goto "the hyperreality of fish" page 66 or "the hopeful science," page 46.

HISTORY IS AN ACT THAT WENT WALKING

> "In impermanence itself lies the mystery of an inexhaustible productivity of historical life."[17]
>
> Hans-Georg Gadamer

Life after the end of history increasingly carries with it a sense of enclosure, whether experienced in a guarded compound, a gated community, or on an oil platform at sea. After the operation of reason in history is exhausted through its fulfillment in a corporatized, armed world order, the working technical differences of opinion as to what direction global politics should take consist mainly in the extent to which corporate, military, or bureaucratic models of organization should dominate. There is still of course the

passage of events and the possibility, even the requirement of ongoing change, but what action remains is abandoned by the spirit of progress, the idea of which has been systematized into institutional orders. The act that Hegel considered to be determined by reason in history is thus both reduced and liberated to its original, ante-historical context in the unpredictable dynamics of public life, consisting of those collective efforts made possible by social circumstances yet rising above the conditioning particularities of the personal present and moving into the indeterminacy of an unknown common future. Here it would seem that the consequences of free acts, beyond the consideration of mere function, are always unpredictable, even to the actors themselves, because they give rise to unintended consequences and depend upon a tangle of public interpretations. One can never be entirely sure how others will take one's words and deeds. Over and beyond a faith-based extrapolation of history as progress after the end of history action thus becomes radically historical when it loses its teleological determinations and as the actor is forced to dwell in the particularities of a worldly situation, using what is available in the moment and imagining forward toward the potential public interpretations of the act conceived as art.

The modernist genius in scribbles and pixels Paul Klee expresses this liberating quality of immediacy via presentation in his "Creative Credo," when he writes that "Art does not render the visible; rather it makes visible"—what may be taken as both a valorization of art as pure presentation and as an indictment against the rendering of phenomena into the re-presentations of things. As Gadamer describes it, art so considered is "a coming-to-presentation of being"[18] that works to save the phenomenon while revealing its many modes of expression for interpretation.

In the case of Klee's work we witness an artist with an electric imagination that seems to anticipate new forms of technology before their engineered invention, in an instance of art preemptively going digital before it is digitized. In his paintings time fractures and heals like droplets of mercury released from a tube, breaking and resolving from continuous chains into liberated, pixelated nodes. It is possible that Klee had a Morse-code kind of imagery in mind when he suggested his famous image of a line as a dot gone walking. If that is the case, then the sequencing of pixels allowed by Morse-code would be only slightly more articulate than a truly digital mode of representation, in that the meanings of the former medium are stretched out over time, and still contain intervals of absence punctuating the stream of data. Even the imperative < . . . ——— . . . > has its breaking off points, the calm of silence before and after that makes action possible.

For *action*, goto "savage machines," page 82.

PLATITUDE #2: <EVERYONE HAS TECHNOLOGY>

The technological drive to include and integrate finds its unconscious expression in the common platitude that all people at all times have had technology, though not as good as ours now. In this way the stone hammer is conceived as a technology as an air hammer is a technology, with the caveman's club perceived as an early prototype of an historically immanent design. This linear conception of technological development can be understood as an expression of the spirit of high modernism and of an already waning faith in progress, according to which the new has a determining influence on local patterns of development. This technological chauvinism views the past as imperfectly anticipating the present, as if ancient people's were inexorably drawn toward an abstract idea of freedom that we are only now, apparently, conscious of as a working concept and blueprint for universal development. According to this attitude modern technology is seen as superior, and ancient peoples (and non-Western civilizations) are taken to represent crude versions of the historically dominant technological civilization. This kind of prejudice is glaring in Marx's theory of economic and social development,[19] in Rostow's stages of modernization,[20] and in neoliberal economics gone global. In all these forms of secular faith early stages of social and economic development are conceived as mere preparations for progress, with past modes of social and economic organization plowed back into the dirt as the field is leveled for technological progress.

Now though, after the end of history the crude, lockstep progressivism of Marx, Rostow and global neoliberalism (that is armed post-Keynesian liberalism) begins to shade into nonlinear patterns of change, in which the hypermodern is seen to coexist with the ancient, and the hyperrational alongside of the mythic. The worn conception of history as a linear, progressive development toward a determinate end unfolds into a time consciousness of cultural tensions, within which the animating hopes of enlightenment and progress are crowded out by a collective anxiety of a collapse of technological civilization. The drive toward a determinate end of history is thus subverted into a new historical sensibility cobbled together into governing myths, made from the deconstructed ruins of the past. What results is a leveled out sense of time, with history transformed into a junk-bin of mythic symbols and resonant events which are rendered into driving narratives and highly simplified ideologies of how the world works, and of the place of the subject(ed) within that imagined world. The same sense of non-linear history that allows some to imagine returning to the age of the Caliphate allows others to promulgate a fundamentalist interpretation of the Bible into the present—either way, we're way beyond progress now.

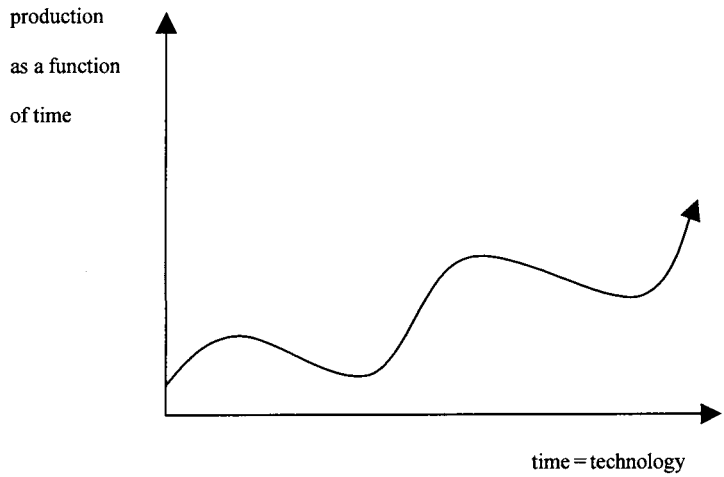
What has changed is the framework for conceiving change, with various fundamentalisms representing a breaking point for modernity in that they subvert

the concept of progress that is at its core. The new species of fundamentalist historicist consciousness sidestep the causality of inheritance in order to retrieve an imagined, uncontaminated origin and with it the pure open-ended potential of the original—the unconditioned new—in the further hopes of catapulting humankind into an indeterminate future. This radical form of historicism that is at the root of fundamentalism constitutes a reaction against modernity from within modernity, made technologically possible by the growing sense of simultaneity and the compression of time. The modesty inherent in true forms of conservatism—aimed toward the preservation of good things registered into the present from the past—is deserted for an imagined mastery of time as history and the projection of an undetermined, mythical past that may never have been into a critically fateful future for humanity.

For *fundamentalism*, go to "surrealism and the American geo-political imagination," page 111.

THE HOPEFUL SCIENCE

This graph assumes limitless growth within the context of the rise and fall of business cycles, representing a common assumption within growth economics. Even decreases in productivity are by convention described as "negative growth."[21] Though production is necessarily limited by nature conceived as an exogenous system of resources, the open-endedness of technological development that is expressed in the equation time = technology definitively projects human capacities into an unknown future in order to overcome the natural scarcity and the technical limits of human in-



dustry that necessitate work. Technology is the independent variable in this graph and in the worldview it represents, in that it refers strictly to itself and to its own unlimited potential for increase, while the change in productive power is dependent upon it. There is no axis for nature on this graph. Nature, according to the economist, constitutes an input into a self-referential system of production and consumption. The graph itself stands in for the tenuous artificiality of the economic system that sustains our lives—measured by outputs of man-made products and dependent upon a falsely naturalized equation between technological development and the unfolding of time.

In one of the earliest economic theories on the value of money, in the first book of the *Politics*, the *Oikonomia* (literally the *nomos* of the *oikos*, or the laws pertaining to the basic unit of production, consumption and reproduction) Aristotle observes that currencies tend to develop toward ever more symbolic units of exchange: from moneyless self-sufficiency in production and consumption, to barter economies, to a gold standard based in weight, to stamped coins bearing abstract insignias of value. Even in this early reflection on the valuation of currencies it appears that the reality that money swirls around, faster and more figuratively now than ever, shades into subservience to its cipher stand-in. For the perceived potential of limitless accumulation clouds the sense of what Aristotle would call the natural ends and limits of production and consumption:

> "the end of this accumulation has no limit (*telos*)"[22]

The end or purpose of the economic system of exchanges—for instance growth in gross domestic product—is identified by the contemporary economist as an orientating locus on a sliding scale of development, with the measure of value ultimately dependant upon technology as the independent variable in the production function. Our posthistorical sense of purpose, of ends or limits is, in this representation, grounded in our more fundamental sense of change. As the influential twentieth century theorist of business cycles, Joseph Schumpeter writes, the changes inherent to economic processes, "are theoretically and practically, economically and culturally, much more important than the economic stability upon which all analytical attention has been concentrated for so long."[23] Here one could refer to the earlier emphasis on equilibrium analysis, as well as to the orientation toward 'natural' conditions of exchange prominent in the classical nineteenth century economic theories of John Stuart Mill,[24] David Ricardo,[25] and Karl Marx,[26] and even further back to Aristotle's theory of money as a necessary means to the conditions of self-sufficiency delimited by natural needs. In contrast, Schumpeter and almost all conventional economists do away with the question of 'real' as opposed to market value

as an absolute, given standard of the naturalness or fairness of exchange. Rather, contemporary economics replaces such independent, natural measures of exchange with marginal analysis, which is concerned only with how much more consumers and producers are willing to pay for one more unit of a good, a service or a factor of production. Here arithmetic is replaced by calculus as the summing up of real value is replaced by the mathematics of change, with economic phenomena understood as constantly in motion, and any apparent stability considered to be epiphenomenal to flux. Equilibrium conditions may exist, but even if they manifest temporarily they do not, according to this governing view, correspond to 'natural' conditions or 'real' value.

Along these lines, Schumpeter argues that, "in their special way both the rise and the fall of families and firms are much more characteristic of the capitalist economic system, of its culture and its results, than any of the things that can be observed in a society which is stationary in the sense that its processes reproduce themselves at a constant rate."[27] One does not have to trust Schumpeter's argument for the broad importance of business cycles: worship of unlimited technological development is the public faith, and stock market reports are its liturgy. Through this secular form of Catholicism, technological society is bound together in an orientation toward change itself. As the common thought goes, it's all about process. And as economists insist, government and society must create conditions that are conducive to maintaining and accelerating the processes of change upon which our lives depend. Such attitudes are symptomatic of an enframing technological system that operates as if it were without given ends or limits. Out of an enclosure within life cycles of production and consumption and toward an open-ended project of technological development there may arise ideologies used to justify and shed light upon underlying economic processes, but these fall down as sparks into the fire out of which they arose. Our global economic order is in this metaphorical sense much like the compact, mythic cosmos of Heraclitus, within which justice and injustice are interwoven by cyclical, purposeless change.

> Fire changes all things
> And fire renews,
> As goods are sold for gold
> And gold for goods.[28]

After the late twentieth century absolution of the gold standard, a move that represented an attempted forgiveness of the human economic-based attachment to corporeality, and the subsequent liberation of national currencies to strict market valuations within a global web of exchanges, even the fluid mythic sense of self-renewing substance expressed by Heraclitus starts

to seem concrete by comparison with the exchanges of digital numbers and ungrounded signifiers that constitute the global economy: a network of markets held tenuously together by a frenzy of symbolic exchanges, periodically compromised by capital market distortions, the herd behaviours of investors, capital flight and currency crises. Yet a crisis is also an opening within the otherwise self-referential logic of free market exchanges, and represents a potential choice about the global virtual economy, to be considered either as a mode of substance for the real people who live within it and whose lives depend upon it or alternatively as an inhuman automaton and perpetual motion delusion—a machine that would run of itself.

Under the dominant, self-referential logic of accumulation via integration humane alternatives for development must find a way from the inside of the machine out. Here humane development begins an intelligent acknowledgement of the underlying chaos and frictions within the system, calling into question its smooth autoregulation and mechanisms of self-correction. One specific policy proposal for moderating the sometimes erratic behaviors of global currency and investment markets is the Tobin Tax, what would be the first truly global tax, designed to be levied through a collaborative effort by all of the world's major financial trading centers. It was imagined by its progenitor, Nobel Laureate James Tobin, as a tax proportional to the speed of financial transactions: "sand in the wheels" of global finance is the metaphor often used to describe the moderating measure, intended to prevent regional and global economic crises due to capital flight. However, though the measure may be prudent, slowness is a hard sell in a capitalist system, as is throwing sand in the wheels of a technology such as the global economy. Though the tax may indeed serve human purposes—keeping capital invested in the work and lives of people rather than flitting over the globe for momentary advantages measured as fractions of percentages—it goes against the self-referential logic of efficiency, the illusion of limitless economic gain, and the ideology that investment capital must be free to move.

One must wonder though how such a species of freedom is ultimately beneficial to humanity on a global scale, or even consistent with neoliberal economic theory, since for the argument from economic efficiency through free trade and comparative advantages to hold, all the factors of production, including labor, should be made free to move also. Yet it would seem that freedom is reserved for the ciphers of capital and not the global masses, who often cannot travel beyond their home countries, let alone travel nearly instantaneously and without cost. The issue, therefore, for those social architects concerned with the welfare of the species and the sustaining processes of a global economy becomes a question of how human beings can keep up with their mediated electronic environments. This means first understanding the ideological underpinnings of economic development,

which are at root more mythic than rational, with investment advisors fulfilling the role of secular priests overseeing a global liturgy, managing cycles of release and restraint, religiously intoning <*Rejoice in market corrections.*> In lieu of reflection, a pattern of ongoing cyclical degenerations and renewals eclipses an overarching idea of purpose, with an open-ended potential of development serving as its own justification.

Yet what do we really find at the core of this logic but the unrevealing premise that worldly processes are characterized by change? How can one make sense of change without a consideration of its ends, except perhaps to repeat the Heraclitean metaphor that time is like a river? In his meditation on technological action into nature Barry Cooper interprets this often-repeated aphorism in a way that suggests that whereas for both Heraclitus and for us the world is perceived as flux, "we, unlike Heraclitus, are convinced that both the river and human beings change." Cooper implies that while Heraclitus conceived nature as essentially changeful, we are in an even more precarious position because, "It is as if we were travelers through a landscape that is altered as a landscape by the fact of our passage."[29] However, that distinction is not supported by the text, and our situation is much closer to the Heraclitean worldview and to a pre-Platonic, mythic sensibility than Cooper admits. For Heraclitus anthropomorphic changes—both at the level of the individual and in terms of social conventions—are reciprocated by changes in nature, and visa versa. Fire is the genitive principle in nature that gives rise to all of the other elemental distinctions, just as war gives rise to distinctions between social classes.[30] The divisions between beings at all levels fall back into an unstructured flux—an ontology that makes the forms of knowledge radically contingent upon power. In order to get our bearings in such a world, it is helpful to remember the original:

> Just as the river where I step
> is not the same, and is,
> so I am, as I am not.[31]

We and our world are changing, and it is hard to know where to step to find solid ground, since we are at the center of that process.

For automation, goto "world on automatic," page 108.
For crisis, goto "apo-stasis," page 23.

ON THE POSTMODERN ARCHITECTURE OF THE MIND

It has become increasingly common to hear that we are living in an entirely new world. More precisely, I say that our perceptions of the world, and in

particular our senses of time and space have changed. The challenge set forth by Frederic Jameson in his influential essay on postmodern architecture to clarify a new sensible intuition appropriate to our integrated environment now finds answers all around:

> . . . we ourselves, the human subjects who happen into this new space, have not kept pace with that evolution; there has been a mutation in the object unaccompanied as yet by any equivalent change in the subject. We do not yet possess the perceptual equipment to match this new hyperspace, as I will call it, in part because our perceptual habits were formed in that older kind of space I have called the space of high modernism.[32]

Jameson defines this new postmodern perception of space—hyperspace—in relation to the high modern perception of space that preceded it. In mathematical terms, the latter is represented by the Cartesian space of x, y, & z coordinates—a rationalized, homogenized grid. In more physical and architectural terms, the space of high modernism is the glass and steel order exemplified in Le Corbusier's United Nations' Secretariat Building: a microcosm of a transparent, expansive world inspired by a secular faith in progress. In line with its symbolic value, the building functions as a monolithic watchtower onto modernity, made transparent in green-tinted glass—what was a novel design at the time (1953), though one that due to the unperfected technology of glass paneled walls apparently made the floor to ceiling windowed rooms uncomfortably hot. Lewis Mumford comments that although the skyscraper may have been inspired by the ethical ideal of transparency, the façade it presented had more of a mirror effect, effectively reflecting its environment in Manhattan's old slaughterhouse district by the Hudson River.[33] The smooth, digital cascading façade of the building was to have been a symbol of transparency and of open communications—an imagined projection of order, though unwound by unintended local climates, agitations, and entropy—the chaos of heat inside the construction. As it turned out the secretaries inside the Secretariat building had to resort to lowering the Venetian shades, working by artificial light, and breathing conditioned air in what has become a familiar subversion of the principles of modernism: tending from transparency to enclosure.

Certainly the key formulae of modernism in architecture, of form = function and of transparency in design can have some enchanting realizations, as in for example Corbusier's Chapel at Ronchamp, an iconic and icon-festooned building with a capacity to produce a spontaneous confusion of tears and laughter.[34] Yet in-between such moments of revelation the stripped down modernist aesthetic tends to exhaust the substance of its creations, producing shells of buildings and of human beings. If one makes machines of houses one risks making machines of their inhabitants also, liberating humanity to functional cubicles. One can only inject so much life

and vitality into a glass and steel box by leaving its air venting exposed; rather, in the more familiar examples of modernism (as at a bus station, in warehouse aisles, in line at the fluorescent-lit grocery store) the emancipation from traditional building forms empties out into a vacuum of Tron-like spaces defined by axial vectors filled in by the blackness of a computer's imagination.

Here is where the postmodern vista differs from the crystalline universality of an x, y and z coordinated space. Rather than transparent, the new space is murky; rather than expansive, it is compressed; rather than discrete points abstractly connected, we perceive the collapse of distance and the possibility of identity across distance. Instead of glass skyscrapers we have McDonalds decorated inside as swimming pools. This is not 'hyperspace' in the sense of an extension of modern space: more expansive, broader horizons, no boundaries and with a clear view forever into the future. Rather, the postmodern, franchised architecture of modular, iconic buildings represents space collapsed inward on itself into the compact space of myth, a closed cosmos composed of multiple, fluidly related centers. The feeling of identity across distance that one gets when walking into a McDonalds is in this sense much like the experience a nomad gets when setting up his tent, that is of being present at the center of the world, such that every tent site and every franchise acts as a paradigmatic construction and an effective center within an interconnected world.

We inhabit a technological cosmos within which space is compressed and processes are integrated for maximum efficiency of exchange, with the planet transformed into a set of inputs for development, such that even the wilds of nature are seen as managed resources for exploitation and recreation. An old, disenchanted woodsman and artist once told me that he would no longer go into the bush, because planes flew over it, nor stare in unabashed wonder at the stars or moon, because the stars may be satellites, and there is garbage on the moon. The concept of an essence of Nature seems more and more like such a product of an old man's romantic memory, while the stuff of our world is systematically integrated as resources, kept on hand for its future potential uses, whether industrial or recreational. The after Man who lives without a memory of Nature prior to his uses for it thus lives inside a closed circle of his own making, with himself at the center.[35]

For the center, goto "a new orbit," page 93.

THE RELIEF OF THE HUMAN CONDITION

Whether one is an integrated-thinking, multitasking technogeek, or an environmentalist sermonizing on the inter-relatedness of species and the life-

processes that sustain them, or a Future-Combat-System soldier-drone killing like a computer under remote control from Centcom in Florida, in any case it is clear that a change in thinking has taken place, such that space can no longer be grasped in Cartesian terms as an extensive field within which local events take place, isolated by space intervening. Rather the enframing plane of worldly existence is aligned as an integrated network, with its outsides inside and its insides out. In the absence of a sense of distance and as the horizon's vanishing point folds back into the vanishing subject, the critical vantage for reflection—that is the room to stand back—within this new form of compact space is offered precisely by the ruptures in those architectonic structures of perception.

Here we can take a cue from Hannah Arendt, who, following Kant describes space as a given for human perception: the framework for sensation and the basis of the human condition of being in the world. However, Arendt differs from Kant in that she sees the basis for perception in the sensible intuition of space not as an ahistorical given of understanding, but as a condition of the human sensorium that can be altered by new enframing technologies of perception. Once humankind has had a view of the earth from a rocketship, for example, the conception of space as a planetary horizon is exploded. It is not simply a matter then of certain a priori senses of space and time being projected onto the world of phenomena, as in a Cartesian grid cast over the world like a net, but that the world of technical phenomena feeds back into the mechanisms of perception, adjusting the lens to suit the subject's worldly relations. Human beings change to suit a world that we have changed to suit us.

The new technical potentials for thought and action thus play with each other in reciprocal exchanges of potentials. Within such an integrated framework, what new limits do we find ourselves up against once a god's-eye view of the earth has been achieved? In her reflections on the relief of the human condition through technology, and specifically on the deterritorializing effects of extraterrestrial travel, Hannah Arendt answers, "Speed has conquered space; and though this conquering process finds its limit at the unconquerable boundary of the simultaneous presence of one body at two different places, it has made distance meaningless."[36] Arendt, borrowing an ancient idea from Plato, suggests that a thing cannot be itself and other than itself. However, I would take Arendt's new phenomenology of space further in suggesting that it is, in fact, technically possible for one thing to be in different places at the same time, that is for identity across difference and action at a distance. Arendt's idea of the fundamental heterogeneity of bodies and events in space represents what is known in physics as the principle of locality, namely that space is a field filled by discrete objects and measured out by the gaps between them. This ontological premise pertaining to the basic structure of being conditions the limits and

possibilities for all domains of knowing, from the technical to the theoretical, for if objects cannot be discretely defined, then specific beings can only be provisionally defined as local systems, functionally traced out to suit the circumstances given by viewpoints and not necessarily in accordance with any distinctive essences of the things themselves.

There may be effective knowledge of the forces that bind matter together and that work between objects, but the localities and objects themselves retain a provisional status, much like Kantian hypotheticals. Here the constitutive interrelations between beings means in part that one can never entirely know a being in an objective sense, or if one were to know something of it, it would be in either a probabilistic or totalizing way—as probabilities mapped out over certain regions, or deterministically when those probabilities are pinned down by the mechanisms of observation, with their form, shape, color and definite place determined by the apparatuses of experiment and perception. <*Let us act as if we know this thing as such*> is the epistemological model here, and, given powerful enough tools of perception for bringing phenomena into order, the hypothetical existences of the things themselves translate into the code: *verum factum*, we know what we make. Yet even such a strong-arm epistemology does not settle the question of what is possible to know, since human perceptions and creations have their own cycles of unintended, and often unpredictable consequences, punctuated by the irruption of the effects of the apparently distant into our localized lives. Local realisms thus function in a strictly provisional way, with a sense of the near and the distant retained only as the sometimes-functional habits of embodied thinking.

In reaction to such a probabilistic ontology that was just then gaining prominence in physics, Albert Einstein gave his defence of the habits of perceptual common sense when he described the principle of locality as the basis of the scientific knowability of the world:

> The following idea characterises the relative independence of objects far apart in space (A and B): external influence on A has no direct influence on B; this is known as the Principle of Local Action, which is used consistently only in field theory. If this axiom were to be completely abolished, the idea of the existence of quasienclosed systems, and thereby the postulation of laws which can be checked empirically in the accepted sense, would become impossible.[37]

Here "quasienclosed" indicates that the field of experiment is only provisionally traced out for the convenience of gathering objects together in order to witness and model their inter-relations. But what if those objects that are thus grouped are not entirely discrete entities in the first place? At the fundamental level of the being of beings in terms of their identity and difference, modern physics has shown experimentally and proven theoretically that space cannot be definitively conceived as a universal and homogenous

field within which bodies are separated and distinguished. There is one especially curious observed fact that unsettles the common conception of space as an inert, 3-dimensional field in which distinct events occur and across which the happening of those events are communicated, thus requiring time for some sort of message to travel from once place to another, and for a distant observer to register what has happened far away. In an experiment that would be the basis of the so-called Bell's Theorem, particle pairs of electrons (one spin-up and the other spin-down) are observed to be immediately connected across space in the sense of each requiring the continued existence of the other. In the experiment, spin-paired electrons are sent in opposite directions and when the two are a distance apart the spin of one of the electrons is inverted, and amazingly it appears that the spin of the other particle changes, and immediately. No time appears to be required to elapse for a message of some kind to be communicated. How this happens is uncertain to modern physicists who still dream of a grand unified theory to explain the relational and observation-dependent identities of unstable quanta: the stuff of which the universe is made, and which seem to exist more in the form of situational probabilities than as discrete entities, that is as provisional locales within an integrated system. But in any case, however natural science gets by for the present what is clear is that Cartesian space—as a continuous, homogenous x, y & z field that takes time to traverse—is not a given for contemporary physics.[38]

On the scale of human quanta—those bundles of relational potentials that are human beings—something similar can be witnessed in the posthistorical landscape. Here space is not simply subjugated as a homogenous field of objects mapped out under a projected Cartesian grid of coordinates, but rather with the acceleration of communications the grid collapses inward, with axes on the grid becoming nodes within a convoluted global network held together by multiple centers. Imagine the path of an electronic mail message for example: from a wireless transmitting device in an Ottawa apartment, into a local network, through twisted cables and under oceans and off of orbiting satellites in motion to a cyber café in Karachi, to compact disk, to donkey courier, to hilltop, to cell phone and back again. Now imagine a missile in flight, guided not toward a state within borders, but toward the transmitting signal of that cellular phone. Though space so conceived may be considered as integrated, its integration is not necessarily orderly, as if one were able to strictly define states and individuals within a regular matrix (as in a theory of local realisms). The identities of individual subjects are only provisionally and probabilistically located as local fields within a general field of relations. Nodes within the system are localized and identified purely by convention and for convenience—to send a message or a missile—as in the open-ended series of Internet Protocol addresses that are assigned to

terminal users. Within that particular system individuated identities consist simply of a growing catalogue of assigned inputs into the network generated by attaching numbers to particular terminals. What is left for a broader perspective falls to myth, with the processes that constitute this universal system of exchange and communication modulating between a rationalizing drive toward synthesis and the cryptic distinction of identities, via bounced communications, offshore servers, temporary email addresses, and identities in transit.

For is it possible to know all of these exchanges that constitute the general field as a whole? How can one come to know the Internet, for example? Here the rational desire to know dissolves into mythology when it is called upon to account for a world in which identities are conceived in terms of relations. A very similar ontological/social situation can be observed in Homer's mythic society of honour seeking warriors, who derive their own sense of personhood from being seen by other fighters: an ontology of worldly presences wherein identities are conceived as a flux of displayed powers in relation. To gain some perspective on this web of constitutive relations Homer periodically invokes the vantage of a god on Olympus, like when he describes all of the fighters assembled on the beach at Troy in one view, what the poet sees as a mass of humanity beyond his comprehension:

> Tell me now, Muses,
> Who live on Olympus—for you are present,
> And know all things, while we
> Hear only reports and know nothing-
> Who were the Greek captains and lords?
> The rank and file I could never name,
> Not even if I had ten tongues, ten mouths,
> A voice that never broke, and a bronze heart,
> Unless the Olympian Muses, daughters
> Of Zeus, called to my mind
> All those who came under Ilion's walls.

But what if Homer had a personal computer and satellite technology? Could he register and transmit those names then? It would seem rather that he would have that much more data to account for, overloaded by increases in memory capacity and processing speed.

Out of Homer's recorded experience of the first epistemological impasse in the development of Western thought <*We hear only reports*> would arise the notion of the limited subjective perspective of the individual, taken to an extreme in the Socratic dictum of <*I know that I do not know*>, and later given experimental clarity in modern physic's subjectivization of the object. What is different though about our new perspective on the unfolding of subjectiv-

ity is that instead of the immanent beginnings of the individual as subject we see its dissolution into an integrated order in which the subject now becomes its own object, while the object is reconstituted as the subject's own seeing. Here the distinction between these two modes of being that Homer intuited at the beginnings of Western civilization, we can reflect on from the perspective of its end.

For Plato on the principle of non-contradiction, goto "system logic," page 13.
For Arendt on where we are when we think, goto "naked thought," page 90.

BLACK-BOX

After a binge of writing code a computer programmer friend commented to me that the running of a program seemed like magic. Now this friend is a rational person who is not prone to either superstition or mythologizing, and though a long stint in the dark with only a blinking cursor and the glowing tip of a cigarette for light may have made his eyes bleary, I could understand the sense in what he was saying in that darkened, smoke-soaked room, namely that the running of a computer program seems to evoke a spell-like unity of coded language flowing directly into action with immediate effect. This is how magic functions in general, as an immediate efficacy of technique intended to short-circuit the gap between wish and fulfillment. According to this definition, modern technology is the only real magic, with older modes standing in as its imperfect anticipations—an historical connection between myth and reason that has its corollary in the tendency of complex technological systems to take on a mythic obscurity.[39]

However, in this particular case the seemingly magical quality of software operation did not consist in a hidden source and voodoo origin, as it may for the average personal computer user, since my friend had fabricated the source code himself, or at least cobbled together a working program out of chunks of code borrowed from others. There is this epistemological dimension to the open-source shareware movement, which reveals the otherwise secret workings of machines as cumulative, open-ended manifestations of human creativity. The practical logic to understanding codes not as private property to be kept secret so that they can be monopolized for corporate profit, but rather as collective cultural products, is that the open-ended unfolding of human potentials depends on both the enlightened organization of intelligence and spontaneous expressions of creativity—two human capacities that are given free voice through the sharing of code and new recombinant applications for it. Considering the extent to which the possible expressions of our personal and public lives are enframed by the software that runs on our computing machines, and if those operations

aren't to appear like some kind of fatal though hidden genetic code or mysterious, subconscious depth upon which our LCD-lit lives depend, then the source code of software ought to be transparent. This much can be inferred if the Enlightenment motto—*Sapere aude*—a command that Kant translates (and Lewis White Beck translates again from the translator's archaic German) as "Have courage to use your own reason!"[40] or more simply as "Dare to be wise!" is applied to computers. And while my friend could not convince me to give up philosophy for enlightenment through radical programming, no reflective person can ignore the powerful determinations and transformations that this new pattern language is having on the shape of human thought and action.

Yet, there is something special about the translation of programs into action that distinguishes computer languages from native human languages: that is the power of functionality that would make it profitable to keep source code a privileged secret. Computer languages are operational in a way that native human languages are not, for though one can read a book and then decide to change one's thinking or do this or that with it, the activity of computers is built into the grammar and syntax of the programs that they run. For this reason computers do not encounter Hamlet's interpretive impasse, who, when asked what he is reading replies, "Words, words, words." There is no "To be or not to be" in a computer's operational schedule, since it understands being and nonbeing discretely and numerically as a zero and a one, and interprets no existential crises out of this basic division, only error messages. The stupid, cursor-blinking logic of a computer is powerful precisely for this reason, because it doesn't leave room open for question or doubt, but is framed in its origins as language that translates ineluctably into action.

Still, however unsubtle the operation of computer logic may be, in that it is capable of generating a sense of complexity only by the accumulation of simple operations, it is hard to get over that human sense of wonder felt toward computers, especially when a program runs and does what it is coded to do. There is a rational miracle of language into action that occurs at the moment when a program is executed, when a command is given to "run" and a computer processor responds, going off to do some combination of calculations while adding, shuffling or deleting memories. Yet just where within this series of events does the magic-seeming translation occur, such that what is an apparently static code can become a set of working processes? Not in the data itself that is stored in binary machine language, which of itself just inertly is—sitting in wait on standing reserve or in the process of being called up from memory. Likewise the encoded digital messages that are communicated along wires or wirelessly through the air may be turned into actions based upon how they are in turn decoded and retransmitted, but the messages themselves must be considered in the sense

of phrases distinct from the actions they may inspire. Though language and action have a close relation, as in the ancient pairing of "words and deeds" that Homer writes of,[41] the two are of different kinds, requiring the uniquely human miracle of interpretation to go between.

In contrast, the codes through which computers process and communicate data consist of a kind of language that is designed to work—a language form characterized by the nominalist definition of variables, and by search strings and commands through which thought becomes action as a coded script is executed. <*If, then, goto, run*> Where is the magic in this most basic of phrases, each word of which issues forth as an imperative command? "If"—consider the variables; "then"—make an association; "goto"—jump to another line within the code; "run"—read and execute the program. All of this seems transparent and un-magical, mundane qualities that would only seem more austere if one were to trace these more complex, humanized levels of language to their operational bases in binary machine language, which can only identify circuits as either closed or open, as in the wonder of a light bulb switched on or off. In that case, beyond the Eureka! moment of the first light—bulb, why wonder at all?

Perhaps my anarchist programmer friend was simply deluded by an exhaustion induced by thinking along with the machine, and his sense of magic at the translation of code into action was an atavism from a potently irrational age of humankind, due to be functionalized out of existence. For if all of our language and the actions that follow from discourse are considered strictly in terms of efficient functionality, then there would be no room for wonder in the new human condition of an existence integrated with computers. Yet, and yet, and yet, where the program must either drive forward from one line of code to the next or stall in a dead end logical loop, the human mind has the power to back up and go over the same thought, once and again twice, and again and again, reconsidering and reinterpreting, putting ideas to new uses, exposing old uses to new ideas, and recycling old thoughts in novel combinations and contexts, turning back on itself and rewriting its own codifications within the interval between actuality and potentiality, finding a wonder in machines that is really the wonder of a human creativity capable of re-conceiving its own conditions of possibility.

For programming, goto like "water to fish," page 7.
For anarchism, goto "a new orbit," page 93.

ON A WORD: "TECHNOLOGY"

The systematic drive toward the technological transformation of the world begins in the West, and can be traced to the roots of the word "technology"

in ancient Greek, but the drive imbedded in the word is no longer exclusive to the West. In the words of George Grant—a voice from the hinterland of Canada bearing witness to the technological dynamo—"when we speak 'technology' we are speaking a new activity which western Europeans brought into the world, and which has given them their universalising and homogenising influence."[42] By setting apart "technology" as something new, Grant reserves those nontechnological languages that preceded it as a kind of sacred territory into which one can step back in order to escape, at least in thought, from the self-justifying logics of instrumental reason and integration for the sake of efficiency. For although "technology" has its roots in the ancient Greek words *techné* and *logos,* 'art' or 'craft' and 'rational speech' respectively, according to Grant the bringing together of those words would have been unthinkable before the age of progress.

The drive to modernize is often identified with the technical accomplishments of Industrial Revolution, though it can be traced to earlier intellectual origins in Machiavelli's promotion of modernity as "*lo modo,*"[43] or "the way of today," pertaining to the introduction of "new modes and orders" for the organization of human and nonhuman life through the application of thought to action. By holding onto the more ancient, premodern distinction between means and ends, expressed in terms of some separation of the necessary and the good,[44] Grant holds out hope against the excesses of technological society and its deprivations—the lack of a sense of the beyond or of the intrinsic worth of given beings, whether those senses of the beyond or of the given are intimated in tradition, witnessed in nature, or recognized in human beings themselves. In this there is a practical as well as a speculative dimension to Grant's characteristically guarded use of language—keeping "technology" safe and restrained in its quotations—that is intended to forestall the completion of a self-referential technological society and the incorporation of all things into a single set of processes, while cultivating a language capable of articulating the deprivals brought on by technological change, something that he goes looking for in Christianity and in classical philosophy. My concern here is with the latter, with Plato and Aristotle and the origins of Western metaphysics—that pattern of thought according to which one looks for the ordering principles of the world in the order of reason itself, in the way that human beings think, a project that would be later attempted in practice through the imposition of projected anthropocentric ideals upon the perceived irrational disorder of the given world.

The conjunction of *techné* and *logos* does not occur in Plato's writings. Indeed, the separation of thought and action, and the warning against what would happen if they were to be combined, is central to Plato's thought. That union is not entirely unthinkable though—the dystopic vision of Book V of the *Republic,* of a completely rationalized society under cybernetic controls of class, labour, eugenics, and armed drones is an imaginative testa-

ment to what might happen if a philosopher-king were to gain power and absolute ideals were to be imposed onto political reality, bringing perfect order to that wellspring of change that is human desire. However, the *Republic* is a city that comes to being in speech,[45] not a blueprint for action. There is no plan set out for how to bring such a regime into being, with the union of thought and action in the philosopher-king left to chance—a possibility that Socrates and his poetic interlocutor Adeimantus agree would be highly unlikely.[46]

Likewise for Aristotle thought is kept separate from action, as the arts and sciences are conceptually kept within their proper spheres through an assignment of the arts and sciences to respective domains within a graduated hierarchy of relatively autonomous spheres of making and knowing. I say relatively autonomous because Aristotle presents the *technas* or crafts of household management as having their own set of rules. Yet at the same time households fall within the laws of the *polis* and are guarded by its collective defence, and thus have their place within an overarching hierarchy, supplying what is necessary for public life with their powers of production and reproduction while being uplifted by their participation in the higher purpose of a common good. The point of distinction within the hierarchy of the ancient Greek cosmos is that the highest is distinguished as being for its own sake, while what is low exists for the sake of something high. Aristotle distinguishes comprehension as singularly unique in its capacity to grasp first principles,[47] and as being for its own sake—in, of and for itself is how Plato describes it. At the other end of the hierarchy *techné* is only meaningful in terms of the goods it produces. The products of *techné*—the goods of the body that are produced and consumed within the context of the *oikos*, or private realm—are made meaningful by their place within the graduated hierarchy of means, each and all ennobled by the higher ends they serve.

Embedded in this classical hierarchical relation between means and ends is a separation between making and knowing as two distinct human capacities. Here the modern epistemological code of *verum factum*—or that one knows what one makes—is reversed, such that to know something is to stand back from it and see it as it is, whereas to make something is involve oneself in the thing made so deeply that one cannot see the thing for what it is, such that the artist comes to see his craft rather as an extension of himself. And who hasn't at some time stood back in wonder at the work of one's own hands, as a gift of beauty, order, and novelty fallen into the world from a uniquely human power of creativity? Yet, along with Plato, who argues that artisans produce fine things, yet are incapable of giving a rational account of their artifacts,[48] Aristotle argues that the crafts are dumb, that while there may be a kind of knowledge attendant to them, it is a not a kind of knowledge that expresses itself in rational speech. While that which pertains to first

principles is demonstrable, and can be accounted for through rational speech—*logos*—*techné* on the other hand must be learned by doing, as a carpenter would learn by building houses, and not theoretical instruction.[49] What this means is that *techné* does not have its *logos* within itself, that it cannot give a rational account of itself in words, but instead falls back into a poetic celebration of creativity—a humane myth of origins—as a substitute for the logical justification of purposes and consequences.

However, given the importance of the separation of *logos* and *techné* or ends and means in classical thought, the idea of technology was not entirely unknown to the ancient Greeks, with the compound *technologia* appearing several times in Aristotle's *Art of Rhetoric*.[50] Through later tradition this compound has taken on the diminished meaning of a treatise on rhetoric,[51] but its full original sense is what concerns us here. Aristotle first introduces the conjunction of *techné* and *logos* as *tas technas town logown*[52]—the arts of words—then soon after joins the two words into one neologism. Through this compound the two terms are made to appear interchangeable, as *technologia* is presented as both the 'the words of the art,' or as John Freese translates, "the rules of the art" and "the art of words." This original combination of the two roots of technology manifests some of the same qualities that we witness in technology, and specifically in technological language, that is language informed by functionality. *Technologia* is for Aristotle a peculiarly self-referential kind of discourse, in the sense that it is words for the sake of words, with no meaning as such but intended for their outward sound and rhetorical effect. This is the stuff that Hamlet reads: "Words, words, words." However, *technologia* is not simply empty words—chatter—but consists of a language form made effective through its conflation with technique. These are words that can make themselves appear real by substituting a human-made reality for a given reality. Of course, much of our society with its laws and customs and our culture with its arts and letters are composed of language and constitute a human-made reality, but when this discursive reality loses its grounding in the phenomena of a shared natural world then this man-made discursive order of reality is dangerously hollowed out into a self-referential empire of signs.[53]

Cognates of *technologia* appear four times in the first book of the *Rhetoric*,[54] always referring to the preceding treatises on the subject, though not to Aristotle's own rational, systematic discourse on the art of rhetoric. He distinguishes his work as complete and rational and pertaining to the essence of the subject, with its rules demonstrable by proofs, whereas the other discourses on the subject—what are instruction manuals for sophistry really—deal strictly with the techniques for arousing the passions, are without proofs, and are incomplete because they cannot say why the art is good in itself, other than that it may help to get us what we want. Similarly, Plato writes that rhetoric is not an art at all, but a kind of a knack, like cooking,

which cannot give an account of itself beyond recipes.[55] Both Plato and Aristotle aim to subjugate this most open-ended art—*techné*—that can get us whatever we desire without informing us as to what we should desire, to reason—*logos*—conceived as an autonomous, discursive faculty attuned to the rational and self-subsistent natural order of the world.

Within the context of this classical conception of *logos* as a theoretical attunement of the mind to the given being of beings, art serves the modest though necessary function of accommodating human bodies to their specific worldly circumstances, working to ameliorate their deprivals and dependencies. According to this ancient conception, this and no more is what *techné* does best: making human beings at home in the world. What is unique though to the particular *techné* that Aristotle has in mind—rhetoric—is that it is an art with no definitive purpose or care that is properly its own. Much as Gorgias is unable to answer Socrates' question about what exactly rhetoric does for its practitioners,[56] so too does Aristotle write that, "as an art its rules are not applied to any particular definite class of things."[57] It is a neutral tool, though an incredibly powerful and fascinating one, precisely because it has no definite shape or purpose. It does not have the discrete limits of an art like shoemaking, for example, which by nature, according to the ancients, is kept to its discrete purpose, making shoes so that citizens can walk to the agora to discuss higher purposes. Yet it may be that these ancient notions of nature as an ordered cosmos and of art as helpful crafts are now obsolete in our age of planetary technological systems and global shoemaking empires. For while there may still be humble cobblers and useless scholars today, the governing reality is Nike and research scientists acting alike in the service of a technological unfolding that is treated as if it were its own justification.

In its etymological roots as in its outcome *technologia* shares in the flexibility of language and the applicability of art. This is why Aristotle's stated aim is to yoke rhetoric to dialectic, giving direction to empty, purposeless speech with rational speech.[58] The neutral tool is put into the service of a governing intellect. *Techné* is subjugated to *logos.* This sense of nobility in purpose may inspire encounters with technique still. The difficulty for us, and one that already begins to show itself in this first union of *techné* and *logos,* is that the two terms tend to spill into one another, such that reason loses its high ground over art. In this case, the *techné* is a kind of *logos.* What is first presented as the 'arts of words' soon becomes the 'words' or 'rules of art.' The two constitutive terms turn in on each other to form a mutually consolidating pair. *Techné* is released from its given limits and acquires the universality of *logos,* while *logos* is brought immediately to bear upon the world and acquires the instrumental power of *techné* as the two words are brought together, their meanings blended into each other, with the sheep becoming more like the shepherd, while the shepherd becomes sheepish. *Techné* is released from its

given, circumscribed function, and is practiced for its own sake, while *logos* is put to use as it is applied to specific problems. The technical crafts are liberated from traditional constraints by the drive for continually more efficient means and by the cross-fertilization between systems of production, while contemplation is dragged down from the ivory towers and reconfigured into an instrumental rationality tooled to solve the problems of the world. The in-and-of-itself is put to use for-this-and-that, while the for-this-and-that takes on the value of the in-and-of-itself.

The conflation of thought and action in technology has as its ideological origin a basic confusion between the root words. This is why Aristotle does not use the word *technologia* to describe his own discourse on the art of rhetoric, according to which rational, systematic discourse must be kept separate from the technical crafts if humans are to practice autonomy—that is the capacity to rise above the cycles of production and consumption and the dictates of necessity in order to make laws for one self, and ultimately, to think freely. Yet free thought so considered is not just critical thought, which can be is as easy as considering different options or purchases; rather, thinking supplies the context within which options can be considered as possible. To contemplate this framework means to be free from having to choose a 'this' or a 'that,' that is, at the most basic level to be able to distinguish action from thought in order to reflect upon and so relieve the determinations of a life of conditioned choices, asking not only about the range of choices available (a type of question that easily leads to the pursuit of novelty for its own sake) but about what it is that makes those choices, and the freedom to make them, important in themselves.

Aristotle coins the term *technologia* and then as quickly brackets it in an effort to quarantine the uniquely malleable craft of molding opinions through imagery. His apprehension is directed toward the apparent potential of such a practice to spill out of any proscribed domain and translate the world into a grotesque image of itself, with the image replacing reality. It is as if the word itself promises a dangerous fusion of means and ends that closes off the potential to speak of purposes more intrinsic than getting one's own way.

For virtual reality, goto "surrealism and the American geo-political imagination," page 111.
For Aristotle on circular logic, goto "the hopeful science," page 46.
For Plato and Aristotle on the unspeakable, goto "language lost."

LANGUAGE LOST

"now I am lost and scarcely know my own name."

Kalevala, VII

What is language for us, and how is it effected by technology? To begin with, there is a lot of chatter, with voices digitized to the whine and chirp of modems, frantic alterations—yes, no, yes, no, no, yes . . . . Bifurcated language is reduced to its simplest terms, with the symbolic orders that enframe the possibilities for thought in expression reduced to a system of signs—words in identity with their referents—like computer language (now broadly used), corporate logos, and politically correct platitudes—the kind of language that one simply "gets" through a kind of immediate resonance. Unlike symbols, which require interpretation and derive their meanings from substantial intertextual linkages that suggest meaning outside of the expressive function of the symbol itself, within signs the meaning is identical with the sign. This shift toward an immediate form of language empties out the interpretive dimension into an abyss of information—clarified and ready to be incorporated into any relational matrix. This is the 'stuff' of technological language: that is information at our disposal; mass opinion to be manufactured; and informational data—chatter—for stomach minds to digest.

The functionality of informational language eats away at wonder, in that it requires a divestiture of the unspeakable—of the essential beyond—in the language of classical philosophy of Plato's *arréton* or Aristotle's *aneu logou* along with the sense of human limits that the idea of unspeakable essence inspires. By contrast, today's scientific discourses have technological horizons, but no essential limits, in that their epistemological ideal is a standpoint beyond standpoints, a projection made possible by the ongoing perfection of controls and experiment—basic scientific strategies for the neutralization of the other into a silent, objective order.

The integrated view of the world that results, that is the total worldview of a technologically organized humanity and planet (or at least the Promethean claim to such a god's eye view) requires a transcendence of the particularities inherent in our worldly being. Human language on a worldly scale is rooted in particulars: one must speak from this perspective and not all perspectives. From this limited, though concrete basis, reliable insight into a world held in common is gained through public speech, in which particular opinions are compared and collected into a common understanding. The political thinker Hannah Arendt identifies this tension between the limited horizon of a world-bound perspectives and the public act of gathering those perspectives into an ontologically more secure commonsense as the key distinction within the human condition, opening up a space between our private lives and the sphere of public discourse. The conflation of these two realms of being through the corporate shaping of personal opinion and the privatization of public spaces is thus not only an intrusion on rights to privacy and free political involvement, but is at a fundamental level an ontological abrogation, cutting individuals off from

what Arendt calls "some darker ground that must remain hidden if it is not to lose its depth in a very real, non-subjective sense."[59]

In contrast with the universal and hence apolitical language of modern science—what is at the most fundamental the language of mathematics—the sort of discursive comparison of irreducible personal opinions toward an agreement on a common sense of the world that Arendt describes is not nearly reliable enough. Any language form that depends upon personal opinions or public discourse must have an element of ontological uncertainty within it; indeed this is what moves the linked processes of personal reflection and public discourse, drawing us into public discussion and turning us back to the ground of our own opinions. Mathematics is not a language form suited to either reflection or political discourse in these senses. Its ontology sets up quite a different relation to reality, where individual perspectives become incomplete data, while public discourse evaporates into so much empty speech. What mathematics is capable of rather is projecting a predetermined order onto the world, as in a vision of the world as seen from a satellite. This altered perspective makes the closed and self-referential system of signs that is modern mathematics such a powerful mode of altering reality, with a self-referential, magical dream-seeming world replacing the real world of shared, given meanings. I say 'magical' because where there is no clear distinction between the order we have projected upon the world and the 'real' world, it becomes possible to change the world just by changing our idea of it through the modification of language. This is magic: working upon the whole through the part by calling out commands to the world. Here the boundaries fade between humans and their environment, between words and referents, representation and reality, potential and actual, or between dreaming and waking life.

THE HYPER-REALITY OF FISH

Technology changes the way we look at the world. The sonar fish finder digitizes the underwater environment, making the hidden depths visually available. The reality of the underwater world is reproduced in electronic form as sonar waves are translated into a digital picture—a virtual reality. However, this does not mean that what we see on the screen is a second-order representation. As technological development drives toward ever more accurate forms of representation, distinguishing different types of bottom—mud, sand, rock—different sizes of fish and baitfish, even temperature variations in the water, one gets a clear sense that what one is viewing is the true reality of things. It really is 21 feet deep here. There really is a fish 16 feet down. That is a reef the boat just passed over. The virtual quality of the representation does not detract from its reality, but makes it seem more real than real—hyperreal, as Baudrillard would say. To understand the shift in meaning from

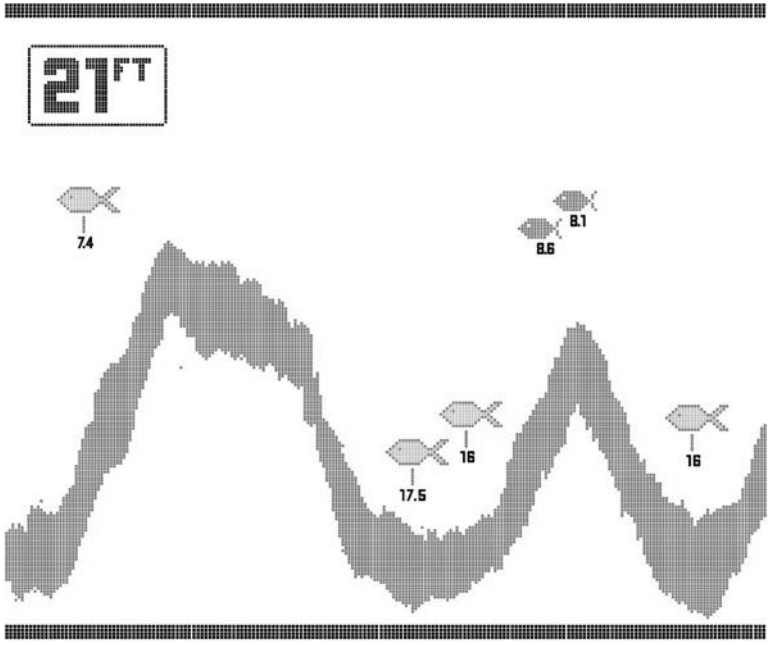


Figure 2.1.[60]
Source: Jessica Spring Illustration + Design

real to hyperreal requires a sensitive translation of the Greek prefix "hyper-," which could be interpreted to mean "over and beyond" (in which case the question of correspondance between the representation and its referrent is absolved by a perfect symbolic order); or alternatively "hyper-" could be translated as "for the purpose of" (with the real standing in as the inspiration for the act of representation); or "hyper-" could be interpreted as "crossing over," like the scrolling pixels of light or the sonar waves scanning the bottom of a lake; or "hyper-" could mean "considering," as in "considering the real." In this gradient of interpretations reality is transferred to the screen from the dark depths which otherwise do not show themselves. Heraclitus wrote that "Nature loves to hide"—well, not any more. That hidden dimension of the real fades under the light of phenomena made manifest through digital reproduction, with the real stripped naked.

Apparently there is a sense of distraction to this hypereality, for while one is looking at the liquid crystal readout the unrendered world goes by unnoticed, and even, over time, becomes like passing scenery and a backdrop to a more existentially rich, manifest reality. Then the fisherman enters a digital trance, as the shoreline also takes on the aspect of electronic images by correspondance, scrolling by as the boat moves along.

The transference from obscure given-reality into manifest hyper-reality is made possible through digitization, which homgenizes an otherwise complex

reality into easily digested pixels. Instead of gradients and subtle analogue mixes, reality is reduced to an on or an off, a zero or a one. Once these equivalences are rendered upon the real, complexities can then be re-programmed back in, though in a manifest and manipulable way, such that the gradient between sand and rock is reduced to a clear line and fish or weeds are torn apart by sonar in the water and then put back together on the screen.

Fish are represented here iconically, as the Christian fishes that one sees on bumper stickers—a triangle tail and an elliptical body: the sign of a fish touching directly on a kind of Platonic idea of fishness. Technology thus deconstructs not only given reality but also works directly on the human pysche, establishing a new mythic ground for otherwise second order perceptions by cueing into the user's thought in an immediate and evocative way, provoking an identity between sign and referent. Rather than the word "FISH"—a symbol requiring the analysis and synthesis of relations—we are confronted with the sign, with which there can be no question of interpretation. Older models of fish finders used arches instead of fish signs, and while more articulate in the sense of distinguishing small from large fish, they disrupted the immediacy of the image: its user-friendliness and an apparent identity between reality and representation.

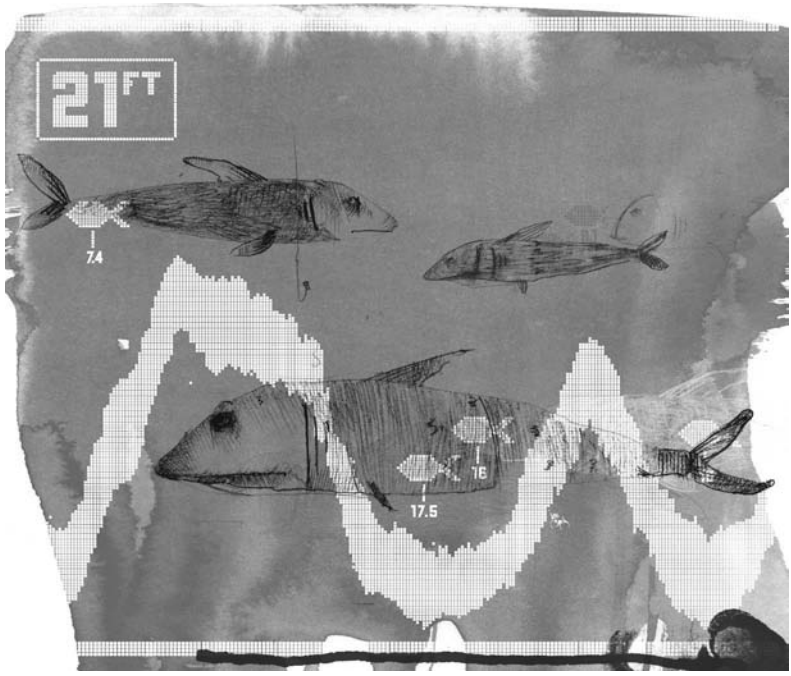


Figure 2.1.1.
Source: Jessica Spring Illustration + Design

Ultimately this identity is helped by the feel of a fish on the end of the line. Then involvement is intensified to the point where technology blends into an unseen environment, like water to fish.

It is sweet indeed to see a fish on the screen and then to feel it bite.

For the reproduction of reality, goto "configurations of reality," page 85.

SIGN LANGUAGE

Perhaps the most pervasive form of public discourse—advertising—is a sign language, with no clear distinction between sign and its referent, but where the sign itself is the message, immediate and un-metaphorical. Our sign language illustrates the poverty of public discourse, as public spaces are crowded out to make way for a functionalized form of language that operates to keep the processes of production and consumption going. Curiously, as language acquires this sort of determinate function it loses its extrinsic meaningfulness, in that as signs, advertisements increasingly do not refer to a good that is marketed and consumed, but rather to their own discursive function. The Nike logo *is* Nike, and you "get it" merely if you recognize it. Naomi Klein makes this point convincingly in her book *NO LOGO*,[61] documenting how corporations have shifted their emphasis toward the "manufacturing" of an image and away from the actual production of goods, which they contract out to ghettoized regions of the global village. In this exchange the product itself—the "real" thing—becomes epiphenomenal to the logo—the image—with which it is incidentally associated. The logo adds value to the product, inflating a pair of sneakers that may cost $1.50 to produce into a $150 exchange-valued commodity. Here a classical Marxian labor-theory of value confronts a substratum of exploitation covered over with a nihilistic valuation where the 'real' value subsists in the sign, not the product. Rather than the sign referring to the product for its value the product refers to the sign for its value and meaning, resulting in a public language that is at the same time hermetically self-referential and yet also extremely powerful, with degrees of influence indexed by a removal from reality.

Advertisements are an efficient and profitable method of controlling mass behavior, perhaps even better than politics, which always maintains an element of contestation. This partly explains why the corporation has become such a powerful entity, being generally better marketed than national brands, and affecting both our private and public lives. Klein's argument concerning the emptying out of public discourse and the corporatization of private and public spaces has much in common with Hannah Arendt's account of the replacement of the separate private and

public realms by a singular social realm, a public domain that mixes the exposure of public life with the character of necessity attached to private life considered in the biological sense. The public realm ceases to be a free realm as it is driven by the necessities of capital, the chief function of which is to produce more capital, while the private realm loses its hidden dimension, wherein each individuated opinion and viewpoint must be considered with the same subtle distinctiveness that distinguishes the smells of different homes.[62] Genuine public discourse is thus imperiled in a double sense: first as the necessity of capital accumulation intrudes upon what should be a free public realm; and second as individual opinion—the hidden ground of discourse according to Arendt—is replaced by mass opinion, re-produced through advertising. Technological language—in this example the vulgar language spoken by corporations to consumers—speaks to the animal necessities of consumption and reproduction, while at the same time taking on an unearthly perspective beyond the particular givens of human experience, with the low and the high both collapsing into a silenced symbol, what is the corporate sign of satisfaction.

For self-satisfaction, goto "closed circuit love."

CLOSED CIRCUIT LOVE

Caught up in a closed-circuit cosmos of our own making, identities vacillate between absorption in and rejection of our self-made selves. For we have found out that, in the end, perfectly realized self-consciousness carries along with itself its opposite: the annihilation of consciousness. A narcotized culture of Last Men cries out, echoing Narcissus:

> 'How I wish I could separate myself from my body! A new prayer this, for a lover, to wish the thing he loves away!'[63]

This wish is not so new for us. Feeling distant from our bodies, as if they were machines under our operation, pleasure factories for our enjoyment, or databanks for our information, is a common condition. Yet whether the attitude is repressive or licentious, the sense of dissociation is the same—either as an abandonment to the process of technological integration, or alternatively, as a Gnostic rejection of technological ordering, even if this rejection must be suicidal.

Rather though, shouldn't we simply turn away from technology, this illusory image of ourselves? As Echo pleads to Narcissus (making one wonder

whether Narcissus is silently reflecting to himself and hearing the echo of his own thoughts):

> The thing you are seeing does not exist: only turn aside and you will lose what you love. What you see is but the shadow cast by your reflection; in itself it is nothing. It comes with you, and lasts while you are there; it will go when you go, if go you can.[64]

Letting technology go is just so easy, and just so hard. Technology has become part of us, and it would be no easier to let go of technology than to lose ourselves, for technology is us.

For Gnosticism, goto "Angelus Novus," page 20, or "apo-stasis," page 23.

BEING ON TV

The hollowness of promised digital representations of happiness results, in effect, from a failure of the totalitarian imagination, traceable to the technical shortcoming of a screen that does not watch back. Monitoring systems do exist to record viewer ratings, keystrokes, and purchases, but these feedback mechanisms and means of autoregulation do not really close the loop, since they collect samples without registering local contexts. Systems of control via representation function more haphazardly than as an abstractly perfect system, not as a rigid mechanical order but rather as probabilistic totalitarianisms within which the possibilities of centralized observation and control are precluded by the scope of the systems involved. Reality is not reproduced in total (in which case there would hardly be a need or use for the model) but is instead selectively sampled, such that for example cellular phone conversations and electronic mail are monitored only for specific search strings. <*The bomb is in the trashcan.*> What results from the sampling of reality into digital media is a flattening out of tone, with the lost sense of the real reproduced rather as a background of white-noise disruptions.

The management of unsettling passions functions similarly through a dilution of their effects, with neither containment nor isolation either practicable or desirable in a de-centered system, within which even the most absolute hatred is watered down into chatter, and manic happiness dissolved into a blue-glow smile: representations of life lived out of a screen and into it.

The new digital life is a free trial with no late fees, a dream of disembodiment and re-creation on credit. <*Start now and cancel anytime and start now and cancel anytime and start now and cancel anytime and start now . . .* >

For totalitarianism, goto "the state as mechanical man," page 105.

SELF AS PHANTASMAGORIA

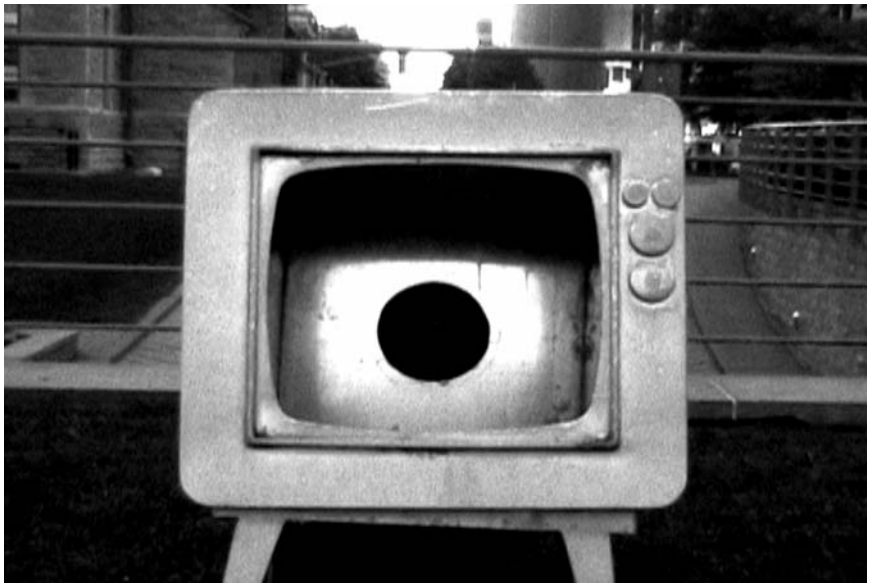


Figure 2.2.[65]

> "When I look at something, what I look at is in me—for it is I, after all, who look at it; it is *my* looking."[66]

What is revealed in this Hegelian moment of self-consciousness knowing self-consciousness is the intentionality of perception folded back upon itself, looped into an identity with the perceiving subject. Within the perceptual feedback loop of a hermetic self seeing its own seeing, free perception becomes a function of a substantial subjectivity, wherein the substance is the medium of perception itself.

Hegel's picture of perception and the concept of the undetermined self that supports it should be familiar in our image-driven culture, where reality is in the seeing, and where subjective freedom projects toward the freedom to choose what one sees. One revealing projection of his own that Hegel makes in what is intended as a pure phenomenology of perceptual freedom can be seen in his common expression that describes the eyes of another in the singular form—as in to "look a human being in the eye"—as if human beings were some kind of one-eyed Cyclopes species—seeing the world on a television screen, without any sense of perceptual depth. In the context of such a flattened worldview, and in the absence of an awareness of the distance in-be-

tween the seeing self and the focal subject, the question of what is the self at the locus of those perceptions is left off with something like Odysseus' riddle response to the Cyclopes who asks him who he is: <*I am no man*>[67] an affirmation of a negative that allows Odysseus to slip past his captor.

The precariousness of monocular vision goes beyond depending on one fragile, fleshy eye, a handicap that produces a foreshortening of perception for the monster, with everything apparently brought in close at hand, whether it is within reach or not. Homer relates that the Cyclopes have everything they need, and so have no incentive for company, or for art, or for seeing things far off.[68] This self-affirming suppression of perceptual mechanisms results in a certain blindness to the in-between character of space, and hence to the basic condition of otherness. It is the miracle of recognition that adds a dimension of separation and distinction into the perceptual framework, sensing others as beings that are not only "out there" in the world (as on a digital flat-screen producing a semblance of a distant reality) but set apart by the space in-between beings. Here the questions of shared meanings and personal identity have their crucial irreconcilability not in the things themselves—in this case an intrinsic identity of the self—but rather in how that dimension of distance and thus the outwardness of the other is brought to awareness.

To elaborate on Hegel's theory of perceptual freedom, both in order to bring transparency to the notion of substance = subject = form that is at its core and to trace out the defining limits of the subject so considered, one can imagine the object-sense of beings-seen "out there" in the world traced from the being-seen back along the lines of sight to the two eyes seeing. The relationship between the seeing-subject and the subject of perception is in this sense mathematically intuited in the form of depth perception. One knows the relative situations of perceived beings in the world by the mind measuring the angle between the two vectors of sight, projecting the thing seen into a perspectival space of vanishing points and horizons.

Reciprocally, the interior dimension of perception and the subjective sense of perspective can be traced back to the relative situation of the perceiving self, which locates itself via an on-going process of triangulation between the relative positions of subjects in shared space. That is, perspective is always in relation to. . . . The nodal nonidentity—the absence at the center of the self—is a moving locus for perceptions of relation, such that the perspective that informs self-knowledge, even in the baseline sense of an awareness of embodied being, must be periodically reconfirmed on the fly. Here is a version of the eternal recurrence <*Who am I now again?*> where an awareness of the relative movements of subjects has the effect of reconstituting the self as a hub within a changing network of perceptual relations.[69]

Is there any deeper, more inherent way than this of giving an account of a real world (i.e., non-transcendentally-derived) self? On the way to describing the inward dimension of the self as both subject and substance, Hegel moves into the domain of cinematic imagery, projecting his own self-made self onto the darkened screen of the eye:

> This [is] the Night, the interior of [human] nature, existing here—*pure Self*—[and] in phantasmagoric representations it is night everywhere: here a bloody head suddenly shoots up and there another white shape, only to disappear as suddenly. We see this Night when we look a human being in the eye, looking into a Night which turns terrifying; the night of the world hangs out toward us.[70]

If a gaze is returned, and seeing subject sees seeing subject, then the two objects of perception are reciprocally annulled, at least insofar as each is recognized by the other as a free being. Hegel understands the substance of human freedom as negativity—an undetermined essence that negates the objects of perception in its acts of perception—essentially making them its own. Between humans this perceptual freedom is expressed as a negation of a negation, which effectively cancels itself out in a positive recognition of the other as a free self like oneself. This puts the two selves on the way to identity, though significantly without positing an objective identity determined as a shared possession of certain inherent traits, or bound within a

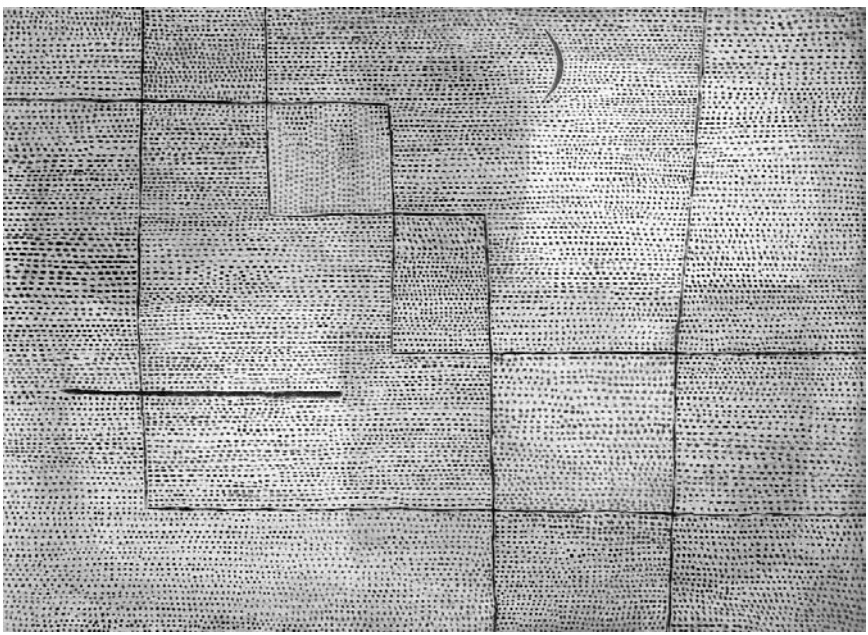


Figure 2.3.

certain category of beings, or allied by common predicates attached to otherwise intrinsically unique subjects. Rather, identity among free subjects is established precisely through a mutual recognition of a freedom from any such determinations. For to objectively conceive another as specifically this or that, or similarly to assign to others an identity in the form of membership in a particular class of beings is to fill in this blank space in-between that is at the core of self-determining freedom.

One particular image from art that manifests this dimension of depth as if by a push backwards to the forehead is Paul Klee's "Clarification," within which a pixilated matrix opens up inward into the abstract equivalents of shaded landforms and clay buildings, with each locale forming its own specific tonal context within the painting's digital system:

CLARIFICATION[71]

The sense of distance as interstice within a crystalline-structured matrix is incrementally revealed as the eye peels back the seemingly transparent fabrics of paint in layers. This mirage-like sensibility effectively compacts the near and the far, dimensions that reveal themselves as the picture is brought in closer to the eye to see. The surreal, sliding effect of depth in two dimensions is grounded only by a single embossed icon—a green crescent moon—that cuts through the painting like an anchor through shattered water, reestablishing its reality as surface.

For depth awareness, goto "the hyper-reality of fish," page 66.

NOTES

1. Milan Kundera, *Immortality*, translated by Peter Kussi (New York: HarperCollins, 1991).
2. Immanuel Kant "To Perpetual Peace: A Philosophical Sketch."
3. *Od*. 9. 105.
4. *Od*. 9. 347–49. Stanley Lombardo (trans.)
5. *Od*. 9. 111.
6. *Od*. 4. 376; 4. 401; 4. 411.
7. This assumes the date of the Trojan War to correspond roughly to the height of Mycenaean civilization before its fall.
8. *Od*. 6. 210–13.
9. *Od*. 8. 503–5.
10. *Beyond Good and Evil*, §96. Walter Kaufmann (trans.). Modern thinkers from Hobbes to Hegel to Nietzsche to Heidegger have identified the consciousness of death as the distinguishing feature of what it means to be human. Curiously they

consider consciousness of death in terms of freedom—that is freedom from the unconscious instinct of animals living in the moment, behaving within their given natures upon which are inscribed the cycles of birth, growth, failing health and death. Consciousness of death and an essential uncertainty about what may come after have been fixed upon by modern thinkers as a nontranscendental means of projecting the human-being out of the diurnal earthly rhythm on a straight line tangent to freedom, with an orientation toward progress and a diversionary fixation on refreshing novelties distracting this species of wounded consciousness that defines itself in terms of the knowledge that it will some day die. However, it would seem that in so determining death-consciousness assigns a fate to human-being rather than freeing the self.

11. Slavoj Zizek, *Welcome to the Desert of the Real* (London: Verso, 2002).

12. *Timaeus*, 51b.

13. *Technology and Empire* (Toronto: Anansi, 1969), 142.

14. It is interesting to note the reversal of expectations that occurs within Hegel's division between individuals as objects of history—literally those whose freedoms are the object of progress—and the person as subject of history—the world historical individual—a singularly violent figure who is taken up as a sort of possessed puppet of history, doing the nasty necessities apparently required to dislodge history from one set of institutionally instantiated values toward another. Curiously, it is the individual as object who Hegel considers to be more free than those world historical actors who found new modes and orders, since objective freedoms of citizens within established orders are recognized by law and by other citizens as equals, whereas the world historical actors cannot find recognition either within an established legal framework or from their equals (except when they are fighting, or when their *nom de guerre* is spoken). The world historical actor is dumb to his own significance, because he has no context within which to interpret his actions, beyond vague generalities expressed as battle cries and ideological slogans. For to be taken up by the spirit of history requires abandoning a sense of conscience to the present and toward others. World historical subjects thus enjoy their anonymous freedoms—the freedom to follow the law—whereas for Hegel the world historical individual knows only the necessity of his historical moment, compelled by the lawless compulsions of violence. Significantly, Hegel's valuation of the two modes of action—lawful recognition and lawless leveling—attributes "infinite value" to the life of a simple shepherd or peasant as expressions of autonomy, [*Reason in History*, III. 2. c] whereas the revolutionary acts of a Napoleon attain only an instrumental value, though they may serve to turn the pages of history. Here we find perhaps the great advantage of the end of history to be a reclamation of action with conscience, when freedom is realized not as the violent transformation of the world but rather in terms of self-determination.

15. *Welcome to the Desert of the Real*, 27.

16. There is a practical significance to Francis Fukuyama's popularization of the end of history argument, toward the realization of the concept; however, the idea of the universal and homogenous state had already been systematically elaborated by Alexandre Kojève fifty years earlier—in an instance of time catching up with its tail.

17. Hans-Georg Gadamer, *Truth and Method* (London: Continuum, 1975), 200.

18. ibid., 152.

19. Karl Marx, *Pre-Capitalist Economic Formations*. Jack Cohen (trans.) E. J. Hobsbawm (ed.) (New York: International Publishers, 1964).

20. W. W. Rostow, *The process of economic growth* (Oxford: Clarendon Press, 1960).

21. Alpha Chiang, *Fundamental Methods of Mathematical Economics*. 3rd ed. (Singapore: McGraw-Hill, 1984) 280–81. For nonconventional treatments of the question of growth in economics that do not contain the assumption of limitless growth, see Mancur Olson and Hans H. Landsberg, *The No Growth Society* (New York: Norton, 1973).

22. Aristotle, *Politics*, 1257b30.

23. Joseph A. Schumpeter, *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Redvers Opie (trans.) (Oxford: Oxford University Press, 1969) 255.

24. John Stewart Mill, *Principles of Political Economy with some of their Applications to Social Philosophy*. W. J. Ashley (ed.) (London: Longman & Green, 1917) 478–82. Mill compares market value or exchange value with natural value, the later of which he conceives as depending upon both use value and labor value.

25. David Ricardo, *On the Principles of Political Economy and Taxation*. Piero Sraffa (ed.) (Cambridge: Cambridge University Press, 1962) 11–66; 88–92. Ricardo looks for a relation between market prices and natural prices.

26. Karl Marx, *Capital: A Critical Analysis of Capitalist Production*. Vol. I. Samuel Moore and Edward Aveling (trans.) (Moscow: Progress Publishers), 173–92. Marx distinguishes market value and labour value, the difference between which he calls surplus value—the measure of capitalist exploitation.

27. Joseph Schumpeter, *The Theory of Economic Development: An Inquiry into Profits, Capital Credit, Interest, and the Business Cycle*, translated by Redvers Opie, (Oxford: Oxford University Press, 1934), 255.

28. Bywater fragment 90 (my translation).

29. Cooper, Barry. *Action into Nature: An Essay on the Meaning of Technology* (Notre Dame: University of Notre Dame Press, 1991), 102.

30. "War is the father of all things and king; it shows some as gods and some as humans, some it makes natural slaves and others freemen." Bywater 53 (my translation).

31. Bywater 49a (my translation).

32. Jameson, Frederic. "The Cultural Logic of Late Capitalism" in *Rethinking Architecture*. Neil Leach (ed.) (London: Routledge, 1997), 242.

33. See Lewis Mumford, *From the Ground up—Observations on Contemporary Architecture, Housing, Highway Design and Civic Design*, (New York: Harvest, 1956) chps. III–VI.

34. The Canadian architect Frank Gehry makes an annual pilgrimage to Le Corbusier's chapel to the modern spirit, an act that reveals a Catholic, universal dimension to the secular faith in transparency as truth. He tells the architecture critic Lisa Rochon that "I go there every year, and I always cry." *Up North: where Canada's architecture meets the land*, (Toronto: Key Porter Books, 2005), 98.

35. Walter McFarlane was a painter by profession. His "Indian Grandmother & Child at Tea Fire" is on display at the Sioux Lookout Public Library; much of his work belongs to private collections. After fighting in the first world war, Walter abandoned a life of privilege and left the United States for the Canadian bush, to travel by canoe and dogsled over seasons, to work as a fire tower ranger, and to paint. McFarlane's paintings are realistic portrayals of life in the bush. In their depiction of Indian life especially they serve as reminders of something lost to us—an experience of the pure givenness of nature. For a retrospective on McFarlane's work, see Calvin Rutstrum's essay, "Wilderness Artist" in *The Beaver*, Winter 1972.

36. Hannah Arendt, *The Human Condition* (Chicago: University of Chicago Press, 1958).

37. "Quantum Mechanics and Reality" *Dialectica* 2:320–24, 1948.

38. For a layman's account of the conception of space in contemporary physics from our premier cosmologist, see Stephen Hawking's *A brief history of time: from the big bang to black holes* (Toronto: Bantam Books, 1988). Though Hawking has subsequently backed away from his 'Big Bang/Big Crunch' hypothesis, his conception of space is still a 'contorted' one, and not at all Cartesian.

For philosophical considerations of Bell's Theorem, see *Philosophical consequences of quantum theory: reflections on Bell's theorem*. James T. Cushing and Ernan McMullin, (ed.) (Notre Dame: University of Notre Dame Press, 1989).

39. On magic and its place within myth as an efficient mode of action in an integrated cosmos, see Ernst Cassirer's *Language and Myth*, his more extensive formulation of the same idea in neo-Kantian terms in his *Philosophy of Symbolic Forms*, Volume 2, and Bronislaw Malinowski's sociological (if reductionist) study of related themes in *Magic, Science and Religion*, (Garden City: Doubleday, 1948). As much as these authors are careful to understand myth in its own terms, it could be that the integrated ontology of humans and nature that underlies sympathetic magic defies efforts at understanding in terms of proto-science or undeveloped technique, such that, as Murray Bookchin suggests, we tend to read a technological logic of domination back into magic. [*Ecology of Freedom*, (Montreal: Black Rose Books, 1991) 99–100].

40. Immanuel Kant, "What is Enlightenment?" in *Foundations of the Metaphysics of Morals* (New York: Macmillan, 1985) 83.

41. *Il*. 9. 443.

42. George Grant, *English-Speaking Justice*, (Toronto: Anansi, 1974) 1. Also see *Technology and Empire* (Toronto: Anansi, 1969) 15.

43. *The Prince*, ch. XXV.

44. Or, as Plato writes, "the nature of the necessary and the good really differ." [*Republic*. Allan Bloom (trans.) 493c] In classical terms, we make what is necessary for ourselves using *techné* whereas we know the good through *logos.*

45. Rep. 369a.

46. Rep. 499b.

47. Aristotle, *Nicomachean Ethics*. 1141a.

48. *Apology*, 22c.

49. *Nic*. 1103a35. Obviously, the same is not true of an architect today, who, as an *arche tekton* a master builder—learns almost exclusively through theoretical instruction and peripherally through experience in construction.

50. I was alerted to this first use of *technologia* by Carl Mitcham in his book *Thinking through Technology—The Path between Engineering and Philosophy*, (Chicago: University of Chicago Press, 1994) 128–29. However, Mitcham calls the use ambiguous and doesn't devote much attention to it.

51. Liddell and Scott.

52. *Rhet*. 1354a10.

53. "*Empire of Signs*" is the title of Roland Barthe's travel writings on Japanese culture. The phrase suggests a sublimation of the tensions between humans and humans and between humans and nature in a posthistorical imperial aesthetic of deep super-

ficiality, with the fundamental, driving historical potentials for change smoothed over in an apparent order within which appearance and essence are considered identical.

54. *Rhet*. 1354b17, 1354b27, 1355a19, and 1356a11.

55. *Gorgias*. 465a.

56. *Gorg*. 451–53.

57. *Rhet*. 1355b40.

58. *Rhet*. 1354a1.

59. Hannah Arendt, *The Human Condition*, (Chicago: University of Chicago Press, 1958) 71.

60. Screen shot from a liquid crystal display of a sonar fish finder. "fishfinder-merge" courtesy of Jessica Spring, 2008.

61. Klein, Naomi, *NO LOGO: Taking Aim at the Brand Bullies*, (New York: Picador, 1999).

62. The wordlessness of smell, where differences and similarities can only be sketched out metaphorically by linking one experience to another as in <*this wine tastes like alder smoke and raspberries*> approximates the privative dimension of radically individuated existences, where there can be no language for telling how we are different. Heraclitus says, "In Hades souls are known by smell"—an aphorism that echoes with the silent dimension of the person as a singularity that dialectical thought cannot fully register.

63. *Metamorphoses*. 3. 484–86. Mary M. Innes' translation.

64. *Metamorphoses*. 3. 429–34.

65. Screenshot from video short, "being on tv," camera by Damir Isailovic (woodbutcher productions, 2004). Used by kind permission.

66. G. W. F. Hegel, *Jena Lectures on the Philosophy of Spirit*, Leo Rauch (trans.) (Detroit: Wayne State University Press, 1983) 86.

67. Though Odysseus cannot leave his escape at that, and in spite of the danger shouts out his name rather than remain anonymous to the monster. For a Homeric hero just getting out alive is not good enough, because identity is relational and depends on having one's story told.

68. *Od.*, 10. 105–12.

69. Nietzsche's image of the eternal recurrence as a willful self-presentation, manifest historically through episodic patterns of self-overcoming represents only one attempt among many at grounding the idealist sense of freedom embodied in the mind that thinks itself free. The fact that many have thought similar thoughts in different words—psyche, soul, free will, etc.—indicates the dependence of any such a conceptual entity and framework for self-understanding on a general field of possibilities within which it can be situated and made sense of. The philosopher of myth, Mircea Eliade, makes just such a qualification in explaining the subtitle of his book—*Cosmos and History: The Myth of the Eternal Return*—when he suggests that the eternal return is not an idea unique to any specific historical thinker, but rather that this eternal recycling gains its sense of substance through the recurrent reinterpretations of myths that provide its content.

70. G. W. F. Hegel, *Jena Lectures*, Leo Rauch (trans.) (Detroit: Wayne State University Press, 1983) 87.

71. Paul Klee, "*Klaerung*," 1932. ©2008 Artists Rights Society (ARS), New York/VG Bild-Kunst, Bonn.

3

Experiments in Posthumanism

> If one accepts "the *disappearance* of Man at the end of History," if one asserts that "Man remains alive as *animal*," with the specification that "what *disappears* is Man *properly so-called*," one cannot say that "all the rest can be preserved indefinitely: art, love, play, etc." If Man becomes an animal again, his arts, his loves, and his play must also become purely "natural" again. Hence it would have to be admitted that after the end of History, men would construct their edifices and works of art as birds build their nests and spiders spin their webs, would perform musical concerts after the fashion of frogs and cicadas, would play like young animals, and would indulge in love like adult beasts. . . . Animals of the species *Homo sapiens* would react by conditioned reflexes to vocal signals or sign "language," and thus their so-called "discourses" would be like what is supposed to be the "language" of bees.
>
> *Introduction to the Reading of Hegel*, Alexandre Kojève[1]

ON BEING HUMAN

What is human-being?

Traditionally we have defined ourselves as human according to distinctive faculties, identified by uniquely human capacities. So we have called ourselves the rational animal, the animal that lives in cities, the speaking animal, the toolmaking animal, etc. In all of these definitions we take our being understood as our living animality—a mute, passive bodily substructure—upon which distinctive, socially valued functions are conceptually layered, like the latest operating system installed onto the hardware of a computer. Humanness

is thus considered as a predicate modifying an objective material substance. However, this mode of distinguishing human-being from other forms of being no longer works, as those previously unique capacities—thinking, speaking, toolmaking, etc.—have been taken up as functions of technology. Technology, as an extension of human power, co-opts those same faculties that it is intended to extend: computers are more rational than human beings; the Internet sounds out beyond the natural powers of human voice; robots are more efficient toolmakers than human craftsmen, etc. Now, with these extensions of previously limited human powers all around us, it is hard to know where technology stops and human-being begins, and so if we are to reclaim our humanity and ask the question of what we are we must shift our focus from particular capacities and functions to the inherently more open question of our human-being, conceived not as a universal category of "the Human" delimited by formal, identifying functions under which to collect individual human beings but rather as the question of human-being itself. Or put differently, how do we become human?

For posthumanism, goto "the imperial perspective," page 113.

SAVAGE MACHINES[2]

Human beings realize a distinctively self-made status in the capacity for reflection, literally for re-flexion, as in to bend back onto oneself, formulate a self-image, and carry that image forward into the future. This basic temporality of human existence is at the root of our contingent abilities to think and to act, and lends a distinctive precariousness to the human condition. All kinds of things can go wrong on the way to becoming human: the projection of human excellences may be imaginative yet lack the means of realization; historical precedent may exhaust the vitality of the present <*it's been done before*>; or the insistence of the present may condition behaviors to the point of instinctual, inhuman reflex, with thought and action turned in on the reflexive capacity like ingrown toenails, forming feedback loops that turn thinking into thought processes and action into reactionary impulses.

Yet beyond historical contingencies and over and against the fragile temporality of the human condition there is a constant, tempting danger of fixing upon a self-made image of a desired future, freezing the unfolding of potentials into a singular form of human excellence. The various institutional forms of a metaphysics of man—what were called ideologies before the end of ideologies—now function simply as systems for the organization and mobilization of mass opinion, such that the conditions for technological development work back upon human beings through the efficient or-

dering of us as well. The uniquely human perspective of standing back and looking on is thus absorbed and negated as an indirect function of the instruments of our own dominion, with human beings shadowing their own machines.

This twilight condition of humanity unfolds through various processes of self-immolation, rendition, and redaction that blot out the indeterminacy that is basic to the human condition. Witness for example the treatment of suspected terrorists acting out as nonfungible social remains within the technological system. Denied legal recognition as either criminals or prisoners of war, outside of the sheltering matrix of laws and conventions, kept secret from public view, sensory-deprived and limited from human contact, they are treated as malignant contagions rather than as members of the human community, like viruses and infected cells to be isolated and cut off from a host organism. Though the detained terrorist suspect is an extreme example, it represents both a limit of technological inclusion as systematization and perhaps is the most overdetermined example of the technological control of human beings, to the point at which the human ceases to be human—reduced to a transparent matrix of memories and volitions, naked and shackled to the floor, fluorescent-lit for days without daylight.

If we understand the human condition within the context of a sociohistorical framework for the recognition of certain valued characteristics, inherited conditions and possibilities, then what it means to be human can, apparently, change quite drastically from age to age. Just at present, being human is defined by the legal recognition of an essential freedom and equality; at other times it has meant being one of God's privileged creations—the being with a free will and the capacity to love—or being human has been alternatively expressed according to more mythic sensibilities in terms of worldly relations to the sacred present, living at the center, and other related tropes. And though within each reflexive projection there is a strong sense of personal attachment to the defining human characteristic (i.e., one feels human when one is recognized as free and equal; one feels human when one loves God; one feels human when one participates in rituals and lives at the center) in each of these cases there is a displacement of human essence in an identification of certain conditions of existence and the sorts of valuations they foster with the essence of human-being as such.

Such projections of one's present good into an eternal, universal good are understandable and even likely, but it is worth noting that a projection of the conditions of existence into essential qualities does not necessarily follow from the valuation of things. For instance, within a purely technological model, human value is measured by functionality, as in Hobbes' machine-like State, where for the purposes of efficient and secure social ordering it is assumed that "The Value, or WORTH of a man, is as of all other things, his Price; that is to say how much would be given for the use of his

Power."[3] Here the neutralizing effects of human-resource-based social economy perhaps do bring a certain geometric order to what Hobbes conceives as a rabble of social atoms. But in any case the social atoms themselves cannot be expected to care for the order of which they are a part, except to the inherently limited extent that they fear for their own lives. Though fear may provide a bare minimum mass-psychological basis for social order, it can hardly be considered a reason to get excited about the state that protects. This is more on the order of an assumed responsibility of the state toward citizens, rather than a defining characteristic of the human community and what it means to be human within a community.

Hobbes' definition of what it is to be human and the basic social conditions for a profitable, secure life that he describes are the bases of the modern state, intended as a security mechanism. Concomitant with the reduction of politics to security is a model of the human being as a rational (in the sense of calculating), self-interested individual—a *homo oeconomicus* making decisions like an automaton moved by conditioned drives, appetites and aversions. This behavioralistic modeling of human beings presents an interesting case where the conditions of human existence elicit no essential attachments nor any essential projections of the values they give rise to. The Hobbesian state is in this mundane sense strictly value-neutral. It is difficult to imagine an authentic human care for the human type represented, unlike in earlier modes of humanism within which care for the species-type could be considered as an underlying expression of participation in that type.

To understand humanity en masse as a systematized association of calculating consumers, each driven by their own self-interests, is to abstract oneself from oneself, in effect seeing the collective impacts of one's actions as one would conceive of the Brownian motion of liquid molecules in a mug of hot coffee, that is as random agitations subject to externalized forces. And yet even under such conditions, this split between human experience and engaged essence in an externalized view of the self allows for a stepping back from our conditions of existence witnessed as externalities, offering a unique possibility for reflection and thus for free thought and action. Here arises the dual hope and danger that the human condition can change.

For change, goto "history is an act that went walking," page 43.
For the Hobbesian state, goto "the state as mechanical man," page 105.

ON BEING REAL

One significant consequence of going beyond those definitions that reduce humanity to a formal function—man as a political animal, man as a tool-

making animal, man as a speaking animal, etc.—is the inherent open-endedness of the question of humanity rephrased as a question of human-being. For being and becoming are intimately related, and as living creatures conscious of the potential of our own nonbeing this means that there is no hard-shelled definition to shield us from technological manipulation, no clear boundary upon which to stake our limit and law, to say, <*No, we will not become that, we will stay as we always were, made by God or Nature*.> Those blissful prejudices can no longer be sustained by experience or reason, with consistent demonstrations of how provisional those sorts of natural or divinely-sanctioned boundaries were, functioning rather as expressions of earlier technological limits. In the conspicuous absence of a tradition by which to judge what is definitive about human-being—framing the naturally or divinely given in terms of a social, intergenerational given—and if we are not to let technology define who we are, then what must be reconfigured is the manner in which we go about defining ourselves, and in such a way that the language of our self-definition is neither co-opted into the technological discourse nor frittered away in antiquarian salvage operations. That much better to know the past so that we can understand more clearly the unfolding of the present into its time-bound uniqueness. The question of our human-being is challenged forth by the apparently unlimited technical possibilities for the modification of human form and functionality, possibilities that range from genetic manipulation of clones, to techniques of behavior modification and crowd control, to self-induced consumer eugenics. What is it about us as human-beings that, even in such reflexive actions, remains beyond the changes we work upon ourselves? What weathers the storms of historical change? What communal dispensations and personal virtues will survive the coming apart of our technological civilization (Man forbid)? What, behind and beyond the flickering lights and digital shadows of a collective virtual reality is the real that is virtualized?

For *crisis*, goto "the fragility of technology," page 1.

CONFIGURATIONS OF REALITY

At the origins of Western philosophic thought and in an effort to replace the wisdom teachings of early cosmologists with reflexive, i.e. inherently limited self-knowledge, Plato rephrases the question of being in terms of human virtues, which can be reduced to the triad: What is Truth? What is Beauty? What is the Good? Now, not only is there no public forum for those sorts of questions, there is no metaphysical basis for them either. If the metaphysical forms of truth, beauty and goodness did have an independent, transcendent

existence, they have been brought down to earth and instrumentalized as technological form imposed on earthly matter. Thus truth is reduced to adequacy of representation, corporations and consumers hurry to universalize the beauty standard of the moment, and the question of the good is apparently settled as freedom born out of liberal compromise and inclusion. The original tension between ideas and reality that had animated philosophic inquiry from its origins in Plato's idea of the ideas is in effect exhausted as ideas are retooled into the form of ideal products of the human mind transposed onto reality.

What tension remains subsists within beings themselves, which are evidently not so malleable as Plato imagined when he defined the material substrate of the universe as a passive receptivity—a plastic world informed by ideas as outward, visible forms.[4] What is it then within beings themselves that brings forth such spontaneous resistances to becoming reduced to information? What is this source of change within the real that counters the fantasy of a world under control: for trees to grow back from their stumps after they have been cut, for quarried stones to be ground down into sand and carried off by flowing water to be deposited elsewhere, for the earth itself to rebound after seismic shifts or as glaciers melt and retreat? Worldly forces and the laws within which we conceptually bind those outward manifestations of change are epiphenomenal to the being of beings as such, which exist prior to any representation that fixes upon beings by a determination of their capacities for regeneration and mutation. Trace a force-analysis vector back to its origin—from arrow, to line, to point—and one is left with an infinitesimally small center of mass—a nothing. Back behind the abstraction there remains the question of the real that the tangents of thought depart from and, if they are honest, return to.

For the real, goto "on a second-hand greeting," page 39.

WHAT IS THE REAL?

A brief history of answers in three parts and one projection:

1. The real as the opposite of fake, of artificial, of representation. The real is conceived as the transparent truth and as the original object from which art departs. This sense of reality informs Plato's theory of forms, through which all appearances are seen as representations of ideas—eternal forms of being that are in the sense that they do not depart from their unchanging essences. Contrary to common sense, this theoretical attitude sees ideas as the source of real being, while dimin-

ishing the 'mere' appearances themselves as partial, transitory, and biased by perception and opinion. According to this conception, we are in our closest connection to reality when we philosophize. And according to Socrates, when we philosophize we "learn how to die," that is to release ourselves from the transitoriness and particularity of our embodied being. To die, to sleep, to dream—worldly reality is overturned by an imaginative effort of reason in favor of the real conceived as a transcendent order that is only brought back into time via creative representation.

2. The real as that which endures: an unchanging, eternally self-subsistent identity with itself. Again, Plato is at the root of this still-prevalent conception of reality, inherited in faith-based orientations toward eternity personified in an unchanging, singular identity of a monotheistic Creator God, who is then considered as the source of reality and basis of the being of all mortal, earthly creatures. The world itself, by consequence is considered somehow less real precisely because it is an apparent creation, because it changes its appearances, with the phenomena that constitute it coming into and passing out of being. Thus conceived, reality is preserved from the passage of time and decay as something we can never know, the real God of faith reserved from dialectical reason, unspeakable because our discursive knowledge must pass from one idea and one word on to the next, thinking in transition along with the world and, therefore, apart from being that is eternal. Transcendentalism in its most basic sense accomplishes this surreal reorientation, shifting focus from a world of change to an order beyond all temporal experience and only hinted at in discursive reflection. The reality of a transcendent beyond is thus projected as an assumed condition of possibility for even raising the question of what is real, which can only become a question inasmuch as it is not an immediate given.
3. A later idea—the real as material, as matter, or 'stuff' ready for the imposition of human-made forms. The transcendental attitude toward reality was cleared from the sky of ideas by early modern thinkers like Machiavelli and Hobbes, mercenary-minded thinkers who turned their thoughts earthward and saw reality as a shifting field of powers that needed to be forced into some approximation of order, understood in terms of submission to the system-making, world-effective will. As its object, the intelligible real is conceived thus as matter subject to forces. This is largely how we stand with reality now, at the culmination of the modern project and coming to the end of the working out of anthropocentric ideals onto reality. This comportment toward the real informs Machiavelli's early-modern notion of nature as Fortuna, a chaotic field of appearances—like a river in flood—that

must be brought into orderliness through the art of statecraft and the conquest of nature; the building of dams and dykes and the beating of a feminized chance into submission are the crude examples he uses.[5] Curiously though, as this idea of the real as human-ordered chaos comes to its realization in the technological ordering of the globe and the transformation of worldly substance into an assemblage of resources made increasingly available and transparent, the idea of the real as material loses its sense of reality, and we are left disorientated in a world of our own making, with no landmarks left in the lost "real" world. Yet even at this ontological juncture and considering the plasticity of the conceptual frameworks within which reality is reconfigured, what remains is the idea of the real as the intention of and jumping off point for reflection.

4. The benefit of a civilizational crisis, such as we are experiencing in the growing apprehension of the fragility of the global technological system, consists in a renewed openness to the question of what is real, which would otherwise seem obvious and institutionally established. At every such juncture the real makes its appearance from within the concepts that have crystallized around it, though whether the real exists independently of historicized concepts in true ideas, or patiently endures apart from human historical confusion, or subsists within worldly change depends on which conceptual crisis one is thinking out of. The reality that is making its appearance presently is shaped by a surreal departure from the materialist ontology that has underwritten modernity thus far. A "hard" fact is no longer currency in a digitized environment. Substance accrues rather at the exchanges between beings—what were before considered as factual object-things, and what are now local fields that become real only inasmuch as they realize relational capacities with other fields of meaning, or within themselves as local networks. Reality is in the exchange. A link is in this sense the hardest word on a page, with an implied reality that matches any etymological substance traceable back to origins. Here the ideas of likeness which Plato saw as at the basis of being, whereby a being is inasmuch as it is like the archetype it represents, are realized in assigned variables that call local fields into relation. The arbitrariness of the assigned identity—the <*let x be . . .*> becomes transparent as the transcendence of ideas is reduced to a jump from one frame of references to another.

For crisis goto "a global event," page 111.
For the real goto "on a second-hand greeting," page 39.

THE HABIT OF TRANSCENDENCE

This is what is left when the metaphysical superstructure of religious belief and philosophical piety are exhausted, after the forms of philosophy fade into abstract ideas and God becomes a man and dies, what remains behind is the habit of thought that goes beyond itself. In the absence of metaphysical reason, and without the words to express the experience of an order of things beyond the system of extensions of the self into the world, what subsists is a wrinkle in thought, a gap that opens up within the operations of the mind, in the ambiguities and paradoxes that arise in the process of a discursive train of thought. The transcendent thus reveals itself as an immanent, self-sustaining paradox and product of the self, an ecstasy that can only be provisionally answered by pointing to the stars or to God or to power as a fundamental source of order and cause of being in the world. Still, however provisional and partial the answers to the question that is human-being may be, in order for the self to go beyond itself it needs something to look for, a finger pointing, a horizon to steady the sailor's sight and stomach, a single star—any one—chosen as a reference. Even in singling out the first star in the new night sky one is aware that there are others waiting in the gathering dusk. Stars are known not as singularities but are only sensible referentially, inasmuch as the sailor can triangulate between the star in the sky, and his present location on the surface of the ocean, and another spot at sea or on shore. The relational vectors are significant, but the point of orientation itself is only incidentally, and not intrinsically related to the projection of the object into distance—that is to transcendence, where what is significant as the motive element of metaphysics is simply the sense of a being beyond oneself.

To use another metaphor (which is itself a mode of transcending established meanings, as expressed in Greek origins of the word, where the prefix *meta*—is beyond and the root verb *pherein* is to push) we think like a chicken walks, with its way of bobbing its head forward so as to put its being—its center of mass—just beyond itself, and so upset a standing, static balance which is regained in motion when one foot is put forward to catch each fall and step. In dialectical thinking a notion is put forward whereby that newly formed idea is considered to belong to the essence of one's being (as in a Platonic dialogue for example, beginning with the question of what is a particular virtue). That projection of an essential aspect—whether it is the virtue of justice or freedom or the head weight of a bird—provides the motive element. In terms of our planetary situation and at the tipping point of a civilizational dialectic, the realization of the end of metaphysics is manifest through the working out of the transcendent ideas as anthropocentric ideals. As ideas are reduced to the self-referential measures of efficiency and systemic integration, and as an internal consistency approximating self-referential logic is realized

in a global system of regulated exchanges that sense of the beyond which is at the basis of possibility for dialectical thinking is numbed. The experience of transcendence that drives this process of transformation along by pushing man outside of himself toward the remaking of the world in his self-made image is thus reduced even as it finds fulfillment to its naked essence in the spark of thought—the synapse firing.

Yet whether it is this human electricity or a lightning bolt, and whatever the ancient philosophers may have seen in the patterned changes of the stars, the most substantive effect of earlier metaphysical speculations was to delimit and define the self. That is to say that before one can rigorously imagine what is beyond, what is given in the psyche of the self must be reflexively distinguished so that the notion of the beyond does not turn out to be simply a transposition of unself-conscious self-knowledge onto the world, with opinion standing in for reality. Without that crucial distinction between self and cosmos, one leaves the discursive exactitude of philosophical thought and enters the murky world of myth, in which gods are extrapolated from human faculties and natural powers, with the human-being as such washed over by a general sense of the fluid attachments between all worldly beings. To illustrate, in Homer's original, mythic sense of the word the human psyche was the living breath that moves in and out of the body, or the life—blood that escapes through a wound; breath and blood being constitutive rhythmic links between the human being and their world. Only after Plato had abstracted the psyche to mean an eternal soul substance did the filmy margins of the self-come into view, left behind as the traces of the first metaphysical thought.[6]

For metaphor goto "multi-tasking our minds," page 28, or "a prosthetic body politic," page 105.

NAKED THOUGHT

Where are we when we think?[8]

Nowhere—An electrochemical jump across the synaptic gap—the first great abyss in thought—then the flood of cellular memory as the synapse builds up its charge again, getting ready for the next willed-thought or sensation after the last.

The original gap that thought jumps over is the emptiness inside, over and against which we think nothing into something. These openings in thought make thinking faster than the wills and sensations that run along the continuous circuitry of the neuron's axial sheaths. Thought moves fast when it jumps. This traversing of empty space is what makes the unity of the self a possible illusion. Such high-speed thought is necessary to connect the eyes to the big toe and make that toe wiggle—that is to make a person seem singular.

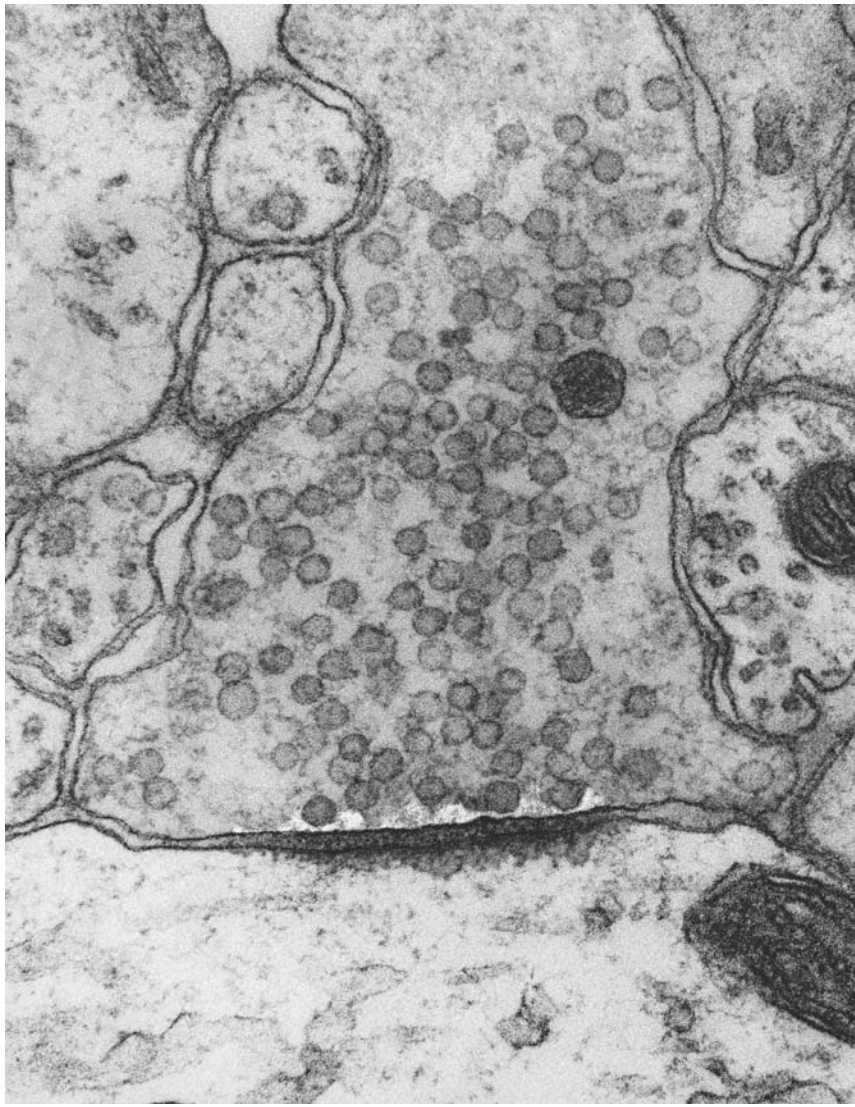


Figure 3.1.[7]

The unity of thought and the consistency of the thinker-as-author's narrative are habits to heal these biologic gaps in electric circuits. The self is just such a potential, episodically built up and released at the sites of electrochemical exchanges between cells within our central nervous system. As in Plato's *eme emautow*, thought is a conversation one has with oneself, and is in this sense essentially communicative.

Everywhere—Thought pushes beyond the self. Thinking is a collecting of experiences together toward the constitution of a worldview, that is a way of seeing the world all in one view. There is of course no such place with this kind of perspective. A mountaintop is one little pinprick of rock; a space shuttle is a lonely, barely breathing capsule in its particular orbit—even the moon has its own horizon of perspectives and possibilities, a particular climate and gravity.

Thinking leaps beyond any one place, beyond any one set of triangulating eyes and dear opinions. And when thought comes back down to earth, look—a new perspective has been established, with transcendence registered as a special effect of thinking.

WORLD ON EDGE[9]

We have seen this picture before, but conventionally we bring it into line with our everyday experience by rotating it onto its side, with the moon standing in for the earth and the earth up in the sky. But a simple flipping of perspectives is not adequate to the new human condition: the picture was originally composed on its side like this, with earth to the left and moon to the right, taken on an equatorial orbit of the earth's largest satellite.

Figure 3.2.

Horizons are no longer givens when human beings can fly. The limits to perspective and possibility then become questions of motion, of relative trajectory and, fundamentally, of speed. How long can a satellite hold its orbit around the planetary center? Centrifugal force vies with natural gravity, and up and down depend on what direction one moves in.

This earth is no longer our given horizon—it is our center and our orientation, a launch pad and a landmark. This means as much of a change to ourselves as to the planet. Hegel demands just such an inherent link between the free spirit and the immutable giveness of gravity when he suggests that,

> One cannot skip over the spirit of his people any more than one can skip over the earth. The earth is the center of gravity; a body imagined as leaving this center can only be imagined as exploding into air. So it is with the individual.[10]

Faster Hegel, faster! The apparently natural pull of Volkish identity, like the specific gravity that holds an individual together, like the force that binds one's feet to the earth can all be snapped. The imagination is not bound to any of these as givens, though it remains the case that even an imagination needs to breathe.

For Hegel go to "system logic" or "self as phantasmorgia."

A NEW ORBIT

Turning and turning in the widening gyre
The falcon cannot hear the falconer;
Things fall apart; the center cannot hold
Mere anarchy is loosed upon the world,

William Butler Yeats,
"The Second Coming"
1919

This is a launch trajectory.

The fact that orbits are elliptical, and not perfect circles, would have boggled the minds of Plato and Aristotle more than our helio-centric cosmos or Newtonian physics. For what the ellipse indicates is the independence of the satellite in orbit, its potential to break the pull of gravity. Plato's celestial bodies moved in eternal circles, whereas we conceive of the stars, planets and moons as mortal beings.

The cold feeling of entering into unknown space, of fearing the end of the past as we have known it—and being right—leads to the consistent error of conservatives: their claims to predict the future. Noble as love for ritual and

beautiful as dancing in circles may be, their predictions succeed only as self-fulfilling prophecies when they imagine that the future can be either a repetition of the past or its total dissolution. This is the mistake of conservative romanticism, which is only saved a little by its romantic love of the past.

The Russian Revolution that Yeats dimly perceived did not let loose a tide of anarchy onto the world, but rather brought forth an all too ordered empire. "Mere" anarchy is the spontaneous action toward voluntary organization, and is in this sense more a beginning than an end. It is the order of things, rather than the thing itself that falls apart. Still, beings remain beings, and human beings preserve their humaneness through the active potentials of love and art, making and sustaining environments fit to live in.

For revolution goto "another side of the dialectic," page 95, or endnote 32, page 116.

NOTES

1. Alexandre Kojeve, *Introduction to the Reading of Hegel*, James H. Nichols (trans.) (Ithica: Cornell University Press, 1969) 159–60fn.

2. Words used by the poet Abdul Baqi Faidhullah to describe car bombers who exploded a book market in Baghdad, scattering the remains of texts and flesh. *New York Times*, March 6, 2007, http://www.nytimes.com/2007/03/06/world/middleeast/06iraq.html?th&emc=th.

3. *Leviathan*, x.

4. *Timaeus*, 48e–51d.

5. *The Prince*, ch. 25.

6. For examples see *Iliad* 9.422, 14.447, and 16.505. Bruno Snell interprets these curious original uses of psyche as gaps in Homer's vocabulary that anticipate Plato's theory of psyche as soul-substance. See *The Discovery of Mind: The Greek Origins of European Thought* (New York: Harper, 1960). I would suggest rather that the poet understood his language and intent even in the absence of later developments in philosophic terminology, and used the word psyche in terms of a substantial self where the essence of life is attached to breath and to blood—a perceived identity denoting the immediacy of mythic experience, where life processes are saturated with a profound sense of reality.

7. The image: a willed thought or sensation moving across a synaptic gap in the central nervous system (x27,360). www.DennisKunkel.com. Copyrighted and used by kind permission.

8. The question and the first answer are from Hannah Arendt's *The Life of the Mind* (San Diego: Harcourt, 1971) 195–202.

9. "Earthrise," by Apollo 8 astronaut William A. Anders, GPN-2001-000009, NASA.

10. G. W. F. Hegel, *Reason in History*, Robert S. Hartman (trans.) (New Jersey: Prentice-Hall, 1997) 37–38.

4

Technological Imperium and Its Limits

Human history goes up in circles, like an aero. The circles are different—some golden, some bloody—but they are all divided into 360 degrees. They start at zero and progress to 10, 20, 200, 360 degrees, and return to zero again. Yes, we have returned to zero. Yes. But to my mathematically reasoning mind, something is clear: this zero is completely different and new. We departed from zero to the right and we returned to zero from the left, and so: instead of plus zero, we are at minus zero. Do you understand?

This zero looks like a silent, colossal, narrow, knife-sharp cliff to me. In the ferocious, shaggy darkness, having held our breath, we cast off from the black, midnight side of the Zero Cliff. For centuries we sailed and sailed, each of us a Columbus, we rounded the whole circle of the Earth, and finally, hooray! Ahoy and everyone's up the mast: ahead of us is a different, as yet unknown side of the Zero Cliff, lit up by the aurora polaris of the One State, an azure mass, the sparks of a rainbow, the sun . . . hundreds of suns, billions of rainbows . . .

It is only the thickness of a knife that separates us from the other, black side of the Zero Cliff. The knife is the most durable, immortal, the most genius thing that man created. The knife was the guillotine; the knife is the universal means of solving all knots; and along the blade of a knife lies the path of paradox—the single most worthy path of the fearless mind . . .

D-503 writing in *We*, Yevgeny Zamiatin[1]

ANOTHER SIDE OF THE DIALECTIC

"*Hegelian Dialectic*. Today, between two points, it is impossible for me not to be a hyphen, a leap, for an instant resting on nothing."

Georges Bataille[2]

Hegel writes a chapter in the *Phenomenology of Spirit* called "Absolute Freedom and Terror." One shouldn't read too much out of any one division that Hegel makes considered in isolation (as Marx makes too much of the dialectic between Lordship and Bondage) since they are historical moments that each express their own inherent limitations, and are moved to self-overcoming by internalized divisions that arise and pass on toward syntheses of opposites. This is the historical process that is finally, for Hegel internalized as re-flexive self-consciousness. So although there are still traces of the master-slave dialectic at work in the world, and though slavery still exists both as an explicit institution as well as in social formations wherever there is a lack of recognition of the inherent freedom of others—from tyrannies to empires to maquiladoras—still the universal recognition of human beings as essentially free and equal beings represents an accepted if not accomplished synthesis of alternatives and the defining norm of contemporary global opinion. Perspectives on this shared ideal may differ depending on one's worldly situation, and a refugee, a soldier, and a bureaucrat would likely have varying opinions on the dimensions of freedom in reality and as a universal condition. Yet even within the context of possible perspectives on the mechanical necessities of freedom, the master-slave dialectic has been synthesized, at least in principle, in the global ideal of the universal recognition of human beings as essentially free and equal, hence self-conscious beings. The question then becomes how to ground our consciousness of freedom in experience.

If one were to pick a moment from Hegel's phenomenological narrative other than the Master-Slave dialectic with which to frame the contradictions of contemporary global politics, it would be that particular moment that Hegel identifies as the dialectic between absolute freedom and terror, an immediate recollection for the author written with the Terror of the French Revolution on his mind. Out of Hegel's symphonic, global history and into our time, an American President has said that freedom and terror are at war, with the United States representing the "single sustainable model for national success: freedom, democracy, and free enterprise" and fundamentalist terrorism representing violent reactions against the global supremacy of that particular ideology of freedom.[3] To expose the logic at play here, absolute freedom and terror are connected more fundamentally than as the cosmic opposites invoked in ideological rhetoric. Ideologies are merely parts pretending to be wholes, particular conceptions of freedom masquerading as universals. From liberalism, to neo-conservatism, to socialism to fascism, every modern ideology proposes a singular idea of what is freedom and what means are necessary to realize freedom in the world. The fact that none begin as a universal consensus is not considered to be an essential dilemma by the ideologues themselves. To the extent that the particulars of circumstances or the diversity of opinion do not fit whatever ideal is

fixed upon, reality and mass opinion are simply forced to conform with the proscribed ideal.

Terror thus serves a crucial function for ideological politics, outwardly as a technique for the strong-arm promotion of an ideal, and then also inwardly, as an internalized basis for group identity once an ideology has taken hold. For since ideological positions reduce to essentially apolitical terms of a yes or a no, submit or resist, terror fills in the emptiness of the public sphere with a sense of absolute, universal purpose, such that collective security acts as the primary basis for community, to the exclusion of other ends and interests.

Now security is, within its limits, an agreed upon end for all forms of political association, but in a latter day imperial state the political psychology underlying the security imperative is twisted into a death fixation even more obsessive than Hobbes' fear of violent death, expressed in his image of a "war of all against all." Terror and fear are in this sense distinct: fear is the existential glue of the Hobbesian state, but the impulse that animates ideological empires and holds them together internally goes beyond a discrete, self-interested fear of violent death at the hands of another individual to a general paranoia that includes the fear of the end not only of one's own life, but the extinction of one's own social order, and at the extreme reaches of the terrorized imagination, of the possibility of civilized life as such. In the minds of those who see themselves as the guardians of a civilization, such an imperious attitude can easily translate into volatile and immoderate reactions to a power in decline, thinking that if the imperial order weren't to exist, then existence could hardly be called worthwhile, so that it would seem better to have the world burn than to witness the decline of their empire. Terror thus exaggerates a personal fear of death beyond the discrete limits of reasonable self-interest, and it is precisely its shapeless indefiniteness that translates into dynamic imperialist, as well as its insurgent and revolutionary forms. Each side acts as the other's ghost, both haunted and haunting, such that their identities are formed by a self-cast shadow—as in <*Our virtue is that we are not Islamo-fascists*> or <*Our virtue is that we are not Americans*>—a dual appropriation of post-historical circumstances by self-identified essential opposites wherein the circular logic of each confirms the paranoias of the other.

Hegel describes the dialectical connection between freedom and terror as he perceived it in the French Revolution's drive toward the universalization and homogenization of freedom. In the Terror the tyrannically entrenched were thus supposedly "forced to be free," according to Rousseau's aphoristic intensification of a liberal logic of inclusion.[4] The particular chapter of the *Phenomenology* that is focused on the dialectic between freedom and terror can be read as a critique of Rousseau's General Will in action, where the middle ground between the individual and the group is closed off, and

along with it the possibilities of either cultural identities or critical self-knowledge outside of the community considered in identity with the universal will.

Terrorist violence, whether it is of a revolutionary imperial government, such as Hegel describes, or of a cultish insurgency, arises out of a misplaced intuition of the systemic totality of social relations, and represents an attempt to secure a direct link between individual acts of violence and a universal, historical will. The intent of both kinds of violence is thus both total and totally meaningless, since they lack an appreciation of difference beyond a crude digital on or off, universal yes or absolutely no, mythic order vs. anarchistic chaos. In the absence of a space for reconciliation in-between, there can be no political meaning properly so called, precisely because there is no mean, no discursive gap opened up by various, limited perspectives on the universal. What is thus exposed in the drive toward the unbound freedom of the universal will is an indeterminate freedom expressed as a *nihil*, an empty nothing spilling out from the unmediated center of what is essentially a negating will, of which Hegel comments,

> The sole and only work and deed accomplished by universal freedom is therefore death—a death that achieves nothing, embraces nothing within its grasp; for what is negated is the unachieved, unfulfilled punctual entity of the absolutely free self.[5]

In attempting to leap over a political middle ground between individual action and universal will—beyond the fulfillments offered within those provisionally sheltered spheres of engagement in real communities, each one appreciated as a moment of reconciliation between subjective freedoms and a substantive realization of the commons grasped within its own particular context and possibilities—the conditional, cultural bonds between the individual and the group are replaced by an amorphous sentiment of overwhelming terror.

Though the use of terror arises out of an unrealized intuition of the interdependence of the human condition, terrorist violence ultimately breaks down any discrete sense of the fragility of our constitutive relations, along with an understanding of the intention of either the individual or the individual act. The individual is washed over with an overwhelming sense of precariousness, not only of one's self but of the social trusts that sustain oneself, while the individual act is dissociated from its particular causes, context and interests, deflected from self-interpretation toward genuflection in terms of universal significance. In the exchange, the substantial motive of action is lost, sliding into empty negation with no positive fulfillment—an intentional death without significance. As Hegel describes in his brutal way:

> It is thus the most cold-blooded and meaningless death of all, with no more significance than cleaving a head of cabbage or swallowing a draught of water.[6]

Hegel's words haunt us like the ghosts of history, embodied as otherworldly suicidal actors; or in the specific circumstances that Hegel describes, as ideologically inspired terroristic states. The patient, enduring remains that constitute the still noble purposes of the French Revolution—liberty, equality and fraternity—are degraded into empty platitudes and abstractions as the forced realization of freedom spins off into cycles of ongoing, predictably episodic revolutionary wars, totalitarian statecraft, revolutionary insurgencies, and imperial conquests. An increasingly abstract form of universal freedom thus unfolds from the longing for total efficiency of technique and perfect efficacy of will.

Yet beyond strategic questions of misplaced means, there is an emptiness at the core of the ideology of universal freedoms mediated as contractual exchanges between individual and institution. As the self becomes progressively free to be the agent of such symbolic exchanges, it sees itself as beholden only to symbols of indebtedness, while coming to view nature, both human and nonhuman as a set of resources. And in a reciprocal turn the nominally autonomous individual is objectified as well, becoming a socioeconomic fact: a vote to be registered; a source of data for social scientists; a consumer who tallies up purchases and responds to advertising stimuli. As the instruments of social control are integrated freedom becomes increasingly abstract, more the freedom of the consumer than a fulfilling human freedom, while the bonds of culture that hold society together in the form of communities weaken as individuals become alienated from the purposes of their society. The emptiness of this disembodied form of freedom, the nihilism in which everything is permitted, and the lack of community that goes along with solipsistic nihilism all agitate the human spirit that yearns for meaning.

At the extreme of agitation is the suicide bomber, the agent of what Hegel's interpreter turned bureaucrat Alexandre Kojève would call a "perfectly 'gratuitous' suicide."[7] This reflex rejection of systemic meaninglessness in itself represents a meaningless death, that is death without a historical end, like the Japanese practice of *seppuku*—the ritualistic honor suicide of Samurai warriors, or the dive bombing Kamikaze pilot. Though the deaths may be informed by a sense of ultimate, ennobling purpose for the suicidal, this purpose cannot be connected either to individual interests or the good of a community and so can only be concretely conceived as being against—as an empty, self-negating negation. And reciprocally, since these last men (and increasingly women) choose to be against the historical purpose of universal freedom, they pit themselves against an abstraction, and commit their lives to the same emptiness that they refuse. At the end of history, according to Kojève's last grand narrative, posthumanity is divided into two types: those who accept their roles as passive consumers—"reanimalized man" or "Americanized man"—and those who try to maintain

their sense of nobility, of ultimate purpose, their freedom to act—those who Kojève calls "Japanized man."[8]

In the absence of cumulative synthesis between the model man and those who react against this particular model of humanity, myth takes over from teleological history, with events unfolding in episodic, cyclical exchanges within which the spirit of action is reduced to the form of pure negation. Short of internalizing the spirit of negation into sublimated cultural forms (i.e., untranslatable codes of superiority), the terror that informs this mythical exchange takes over from a faith in progress as the tie that binds society together, providing a singular directive in the familiar trope of an essential enemy with whom no reconciliation is possible, and who, for the terrorized, fills in the absence of a public sense of progressive purpose.

Hegel saw terror as a potential avenue to broadening and deepening citizens' attachments to others through membership in a new kind of civil religion that would realize the universal will in an urgently felt spiritual solidarity. The sense of atomized isolation that echoes through the mechanistic, fear-based Hobbesian state is answered by the retrieval of a sympathetic attachment to community, conceived as the givenness of others—in family as in *Volkish* nation—that provides a context for otherwise contingent, individualistic freedoms. Curiously then according to Hegel, terror is one opening to this sense of sympathetic community, of *sym-pathos*, or common suffering. Terror is put into service to retrieve a primordial sense of solidarity—the solidarity of the herd—"the mournful lowing of cattle entering a slaughterhouse," in the words of the intellectual sage of the French Revolution.[9]

Reflecting in the aftermath of the Terror, what Hegel saw in that moment of revolutionary excess was a surprising transformation of the idea of perfect freedom into the nihilism of terror. Beyond sympathy, Hegel understood the political use of this powerful emotion in justifying a sense of common moral purpose, specifically realized through a new civil religion that would absolve citizens of the distinction between State and individual, apparently turning an abstract, individualistic freedoms—the freedom of license—into a positive freedom—that is freedom identified with duty. The co-suffering terrorized are thus curiously considered the perfect models of abstract freedom, herded together by alienation and existential anxiety, with the terror standing in as an experiential link to a sense of the world as a whole.

In our present, even more revolutionary circumstances, terror animates the crises that bring focus to humankind's real-time awareness of a collective fate, and provides substance to the idea of globalization as the global integration of systems of exchange, from the symbolic exchanges of the global economy to the all-too-potentially-real speculative exchanges of inter-continental ballistic missiles. This new form of sympathy that moves through global events arises out of the sense of a common, indefinite

threat that could be anywhere, whether the lightening rod for sympathetic energies is a tidal wave, a war, global warming or a power outage. The so-called global village is turning out to be a dangerous place, and it is precisely this dangerousness, this sense that the continued being of human kind is at stake that grounds the idea of global community in shared experiences.[10]

This sense of interdependence could of course have alternative interpretations, though to identify the ambiguity of outcomes produced by complex processes is merely to say that they are complex. A basic ontological uncertainty is, after all, at the root of danger, even more so in the objectless sense of danger that is terror.

For terrorism, goto "killing for reality," page 109.

AFTER THE LAST MAN

Nietzsche presaged the last century fairly well when he wrote that, "the twentieth century will bring with it the struggle for world-dominion,"[11] that is for setting the world in order on a global, as opposed to merely national scale. We live in the immediate aftermath of the "new warlike age" that he foresaw, manifest to us on the home pages of our morning news networks that keep us informed as the world is made available for viewing. With the twentieth century ideological struggles for global dominance shading into relatively autonomous regional imperialisms that find their justifications in the chaotic reactions they inspire, the question now arises of how to integrate those who have been modernized without being westernized, having freely accepted technology without becoming passive, functional operators of technology. These reactionaries do not understand themselves as the contented consumers of happiness that Nietzsche derides (and Fukuyama celebrates) as Last Men, and so are not paralyzed into inaction by the "disease of the will" that accepts all options as equal. The "barbarian" "claiming his rights under the baggy garments of Western civilization"[12]—knows only too well how to act, to stand out in public view, to do the unexpected, to perform deeds beyond self-interested calculation.

Upon reaching its conclusion, the overarching technological project of the efficient organization of resources is spurred by a sense of anxiety toward these immanent potential threats, according to which independent elements are seen as threats to the integrity of the system as a whole. These are the "rogue states," "viral cells," "shadowy networks of terrorists"—the nontransparent remains of chaos that give a negative purpose to a process of technological development that has otherwise exhausted itself in a pleasure principle ungrounded in natural desires. With this new grounding in a

reality of its own unintended consequences the wheels of late-modernity gain some traction on its own resistances. Change for the sake of change takes on an immanent dimension, with technological integration operating as a positive feedback mechanism such that the same technologies that allow for increasing efficiency in imperial ordering both extend the reach of those opposing while increasing their irritation. At the end of history, in the absence of enlightened historical purpose, global politics is moved by endless iterations of ritualized violence, what Hegel would call a "bad infinity," or what Nietzsche would hold up as a self-overcoming from within the spirit of modernity.

What distinguishes the late modern spirit after Hegel is an inclusion of its own negation as an essential cause of its dynamic. A spirit of primitivism resonates through this new animus for change, though in a unique, post-Enlightenment context. Thus the familiar scapegoat mechanism may be put to use in its age-old way as a mythic bond of social integration opposing an essential enemy—viewed as the forces of chaos and absolute antagonists with whom no reconciliation is possible—yet under contemporary technological conditions our Others are registered as the surpluses and unintended products of a Western civilization gone global, so that there can be no sylvan claims to the privileged perspective of innocent ignorance. The Others cannot be simply conceived as nonbeings, since they do not live on the other side of some sacred mountain or beyond the limits of a civilizational order, but are thoroughly enframed within the operations of a technological system. Even the most radical acts of the most radically other of these Others, undertaken in a spirit of violent opposition to the neoliberal logic of calculating self-interestedness, and drawing inspiration from all the dimensions of the unpredictable and the unprecedented are nonetheless manifest as reactive functions of autorejection and the by-products of global patterns of integration. If there is an element of essential otherness to these patterns of violence it is a transcendence of universal identity via the intensification and projection of an emptiness at the core of the modern project—that is an otherness that is our own.

For the Other, go to "system logic," page 13.

INSIDE THE SPECTACLE

> The world at once present and absent which the spectacle makes visible is . . .
>
> Guy Debord, *Society of the Spectacle*, §37

How shall we finish this arrested sentence, a fundamental one in the sense that it is composed in the form, "The world is . . ." and therefore sets

out to answer the question of being? Let's bracket Debord's answer—the commodity—which is apparently confined to issues of symbolic exchanges and circulates within cycles of production and consumption, and with it his anachronistic revival of the question of the source of value in economics—the old shell game of the classical economics of Marx, Ricardo and Smith, who locate the origin of value at a certain point on the circumference of the circle of symbolic-exchanges, calling it labor-value, use-value, or exchange-value. If we learn anything from such magic tricks of transcendence via economics it is to be found in the powers of suggestion, the displacement of attention, and ultimately for us, the art of seeing the trick. For in the end the commodity is a spectacle too, a neon light shining for our attention, the value of which is more the product of the arts of advertising and only marginally related to the costs of production or to real use. Taking the spectacle as it is, as a surface that shows as it conceals, the fundamental exchange here is of the simulation for the real:

> This is the principle of commodity fetishism, the domination of society by "intangible as well as tangible things," which reaches its absolute fulfillment in the spectacle, where the tangible world is replaced by a selection of images which exist above it, and which simultaneously impose themselves as the tangible par excellence.[13]

Spectacles are disappearing landmarks that act in their own absence as orientations for emergent global communities, the living cultures of which are constituted not by those spectacles themselves (the icons are silent) but by the competing interpretations that inform those absences and the fading memories they represent.

The ideas, the values and the ethical codes around which societies organize themselves are always abstractions and aberrations, since in order for those principles to act as orientations they must stand apart as standards, jumping off from the given world. Any ethical code has an element of the absurd to it, and a surreal spectacle is thus a natural origin for the formation of such a code. Though the organizing principles of a society may be traceable to natural conditions—economic life, biological necessity, the struggle for survival—an ethos is not reducible to those determinations; otherwise, if ethics were a mere reflex of the conditions of necessity, no ethical principles would be necessary, or at least they would be easy, instinctual, and universally agreed upon. Rather, economic life allows freedom of choice, biologic life is full of chaos, and political struggle is an open contest in which the winner is not decided beforehand.[14] The undecidability of a given condition is precisely what requires decisions on principles. It is this situation that makes us, as human beings, responsible for our selves and for the codes we make for our selves. "Civilization does not of itself exist."[15] It exists rather of us, more specifically of our art and of our ongoing reinterpretations of works

of art, activities traceable to our reflective mode of being in and beyond the world, of seeing ourselves situated outside of ourselves in a macro-cosmos of our own making.

Here we should be careful to recognize the tenuousness of a free existence, even and perhaps especially when freedom functions as the ideological justification for a global system. For if there is a sense of closure to the end of history, it is in the completion and exhaustion of a certain model of human being—the evening time of Western civilization gone global—that is, the end of the historical mode of being and of the faith in progress as a determination of our spiritual, intellectual and active being in the world. Now that the unfolding of that process has reached its end in the universal principle (requiring technical implementation) that all human beings are fundamentally free and equal beings, what remains is to judge this given situation, that is, to decide what to do in the absence of a historical imperative determining the course of world events. Far from forcing a teleological resolution upon global politics, the opportunity for judgment arises only when the certainty of progress lapses, when the criteria for deciding, dividing, and gathering are no longer clear givens. In the absence of a given direction in history determined as technological progress, the world itself becomes our given, while the historical sense is revealed as a mere fancy of mind projected onto the world of experience. To act outside of that faith in progress is to relinquish the role of prophet or agent of historical mission, responsible to some far-off, transcendent standard in the future, and instead accept a responsibility to this world and the beings in it. If history is, as Hegel says the "slaughter-bench at which the happiness of peoples has been sacrificed"[16] then we should perhaps be happy that his history is over, in order that we may be turned over to a new uncertainty that liberates the future to free action while freeing the past to reinterpretation.

To shift the metaphor for totality from a temporal to a cosmological order of things, one can observe that the moon, when witnessed from earth, seems to shake in the thrall of gravity.[17] Even within the conceptual framework of a physical order within which beings are subjected to manifest and measurable forces, beings assert their own movements. The moon does so when subjected to gravitational force, librating within its orbit as it passes by the earth, shuddering as if in anticipation of breaking the pull of gravity and releasing its own stored up kinetic energy. The relational paths of celestial bodies through the openness of space thus do not, as the ancients thought, trace out perfect, eternal circles by which they are bound to a rational cosmological order; rather what regularities are perceived in their trajectories can be understood as the products of tensions between the forces that belong to all beings. In this sense there are no natural teleologies, neither historical, cosmological, nor ideological implicit in the structures that emerge via the relations between beings. Rather, in terms of ultimate ends,

all beings are moved toward the abyss of their own nonbeing, though precariously arrested in tremulous cycles that move between an undetermined potential of origins—the first contingent explosion that started things into motion—and the unique determination of finitude that belongs definitively to each and every being. All beings may have a shared historical and cosmological origin (one can imagine), and in a world of short memories many such historical origins and ground zeroes can be identified, but no two individual beings can have an identical end in place and time.

For simulation, goto "the hyper-reality of fish," page 66.
For solipsism, goto "closed-circuit love," page 70.
For classical economics goto "the hopeful science," page 46.
For the spectacle, goto" a global event," page 11.

THE STATE AS MECHANICAL MAN

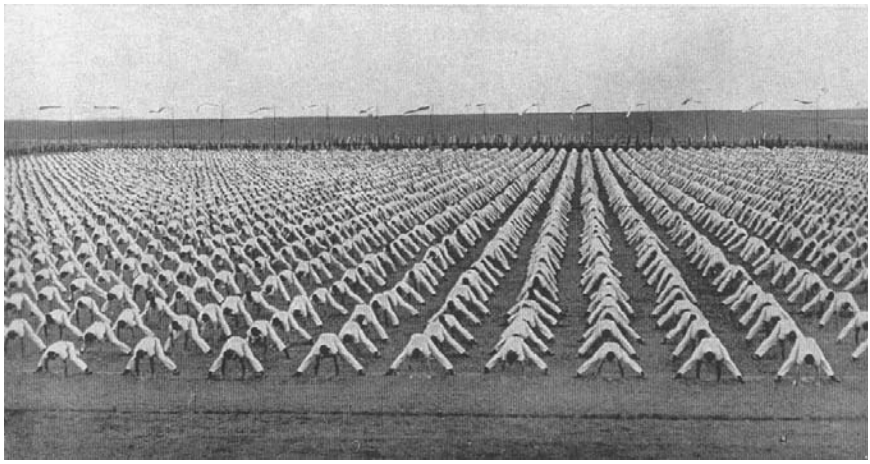


Figure 4.1.[18]

Mass gymnastics as civic training—an image of man in the age of mechanical reproduction, when technology meant machines and the drive toward massification through repetition. This is assembly line politics, stamping the mark of citizen upon human material.

Nothing is uncannier than man![19] The arts by which humans make themselves admit such variety and horror. This strange mass-conformity may function as an exaggerated gesture of the natural human desires for community and collective action and a crude attempt at organic politics, though limited during the era of the machine-like state by the then available technologies of human organization—fields of assembly, public loudspeakers,

and radios.[20] Mechanical man is an imitation of natural man, better than the original only if we judge in terms of scale and longevity, as Hobbes does.[21] However, hugeness is not the final measure of efficiency, the machine was not the last word in technology, and the fascist Nation-State was not the end of history.

For *machine technologies*, *goto "the fragility of technology," page 1*.

A PROSTHETIC BODY POLITIC

> The modern state, the current political reality, requires larger bases than those represented by Nations properly so-called. To be *politically* viable, the modern state must rest on a vast 'imperial' union of related nations. The modern State is only truly a State if it is an Empire.
>
> Alexandre Kojève
> *"Esquisse d'une doctrine de la politique française"*[22]

Patterns within organizations naturally arise as the result of active communications: relations are kept up, pathways from ideas into action are established, and institutions develop as habitual formations circumscribing the possibilities for collective life. The seemingly basic, grounding quality of these systemic orderings must be considered, however, as epiphenomenal to the communications that give rise to them, which are in their own essential way mediate and transitory, that is in-between and on their way to being interpreted by others and directed toward courses of action that are—in keeping with the character of action itself—indeterminate. The idea of a system as an integral whole for ordering discourses and behaviors is a secondary effect of the active communications that are constitutive of the being of the system as such. For if there is nothing in transit to systematize, no relations to bring into regular exchange, no pulses of energy to channel and direct, then the system itself becomes nothing more than an idea as empty framework, a way of speaking and doing that has no content to say or to do.

Perhaps the most basic, substantive way in which the idea of the system as such is understood is in terms of a way or method; as in the question: <*Is there a system?*> i.e., 'Is there a way of doing this or saying that?' System used in this common sense way can refer to either an established system or to a new one. Machiavelli for example distinguishes his account of the nascent political reality of the state as a novel system for governance—what he calls "new modes and orders"—pertaining to the centralization of military power within the state instituted in the person of Prince. The system-like quality in the early modern institution of the state was limited, however, where the state was bound to the will and *virtù* of one ruler. In that case the

prince himself must have read and understood Machiavelli's book in order to make it a system, considered in the most basic sense of a rationalization of action through consciously patterned practices and perceptions—which is just the sort of system Machiavelli provides to his readers, content-wise—that is technical advice for the successful ordering of the state, specifically pertaining to military matters.

Yet given the contingency, chaos and systemic damage done by the violence that sets war outside of the communicative bonds that are the root cause of social formations, Machiavelli's handbook of technical advice for statecraft and warcraft falls short of the integrity between the subject and the form that would be required to call *The Prince* a system in a rigorous sense. Hobbes' State comes closer in its mechanistic form, described metaphorically as an assemblage of wire and gear parts. And indeed, Hobbes is more systemic in his presentation as well, adhering to a resolutive-compositive method borrowed from the early modern natural sciences to break political reality down into is constitutive atoms, themselves conceived as bundles of atomized drives and aversions, bound by rationalized obedience into a secure state designed as a mechanism for producing social order. This mechanical conception of the state is carried over from Hobbes' mechanical model of humanity—what is a metaphor for a particular mode of self-understanding really—and is intended to bring the machine's order back to human-being:

> For what is the *Heart* but a *Spring*;
> and the *Nerves*, but so many *Strings*;
> and the *Joynts*, but so many *Wheeles*,
> giving motion to the whole Body,[23]

Toward a biological metaphor for the state and a technological metaphor for humanity, Hobbes' lumbering "Body Politique"—a seventeenth-century robot-state-system held together by wires and gears—no longer captures the proper dynamic of today's wireless states. That is, the technology, and therefore the metaphor for projected self-consciousness have changed. Hobbes' mechanical man and "Mortall God" are certainly dynamic, though moving in the manner of a watch, with time measured by the turnings of wheels and cogs hidden inside a hard-shelled mechanism. If states today can be said to have bodies then they are electric bodies ordered by digital rhythms and deformed with prostheses and weird growths: cybernetic bodies with stomach and guts outside of their skins; *maquiladoras* in Mexico and oil pipelines in Nigeria; extended central nervous systems of trans-Atlantic fiber-optic cables; expanded sensoria of satellites and spying drones over Afghanistan and Iraq; artificial respirators—smokestacks and tailpipes—breathing into the Arctic air. The body politic

has gotten out of its skin. A new electric metaphor then, to update Hobbes' old poem to the State:

> For what is the heart, but a battery,
> And the nerves, but fiber-optic cables,
> And the joints, but so many servos,
> Speeded up to fast twitch movement.

For technological language, goto "on a word: 'technology,'" page 59.
For systems, goto "system logic," page 13.

WORLD ON AUTOMATIC

It is a common mistake to think of the global technological system as single, imperial state, if by 'state' we understand Hobbes' schema of a centralized set of institutions gathered together under a unified sovereign power. This sort of projection was prominent among twentieth-century theorists of technology such as Heidegger, Grant, and Ellul who formed their thoughts under the shadow of that century's technologically-enhanced tyrannies, and who imagined that global politics would be arranged along the lines of a global totalitarian state, ruling over the world as the head rules over the body and its organ, along the lines of a United Nations with a standing army and executive powers. These dystopian visions of a consummate singularity ending politics have not been realized for the same reasons that global capitalism doesn't require centralized control over production and consumption, that is technological development does not depend on a singular model, but rather its dynamic is generated precisely by a lack of determinate teleology.

What the complimentary functions of integration and autorejection suggest is that the state as a geographically delimited system of interrelated military, political, economic and social institutions gathered under one sovereign is no longer an adequate model and basis for thinking about global order. The state, as Hobbes described it, is a giant machine, and to work it must have its sovereignty centralized within one governing organ. Our system of military, political, economic and social apparatuses, unlike Hobbes' State, is not constituted mechanically, but electronically, and has many nodes of control, servomechanisms through which adjustments are continually and automatically made. Any place or person can be a center. Great powers do exist within the technological cosmos, but not as independent agents capable of determining its course. Rather, they are even more tightly bound to its cycles than the less powerful, as for example the Chief Executive Officer and Board of Directors have little choice but to seek profits for their corporation. In 'politics' too the range of choices is limited, and while

the private person may be able to make choices and form judgments, in public life our choices are highly simplified, or as a president of the United States has repeatedly said, one is either with the system or against it.

This massive uniformity in public life occurs simultaneously with a shift toward decentralization. We have seen this in military command structures, with the design of the nodal-structured Internet for nuclear defense; in business, as corporations such as General Motors fragmented themselves into smaller, more efficient, internally competitive companies; and in the widespread privatization of public utilities and services in Western democracies. Centralization, and not decentralization—or the creation of many centers—seems to have become utopian. Having many centers to the technological cosmos incorporates redundancy and stability that a single center could not, in that by having dispersed centers at which processes monitored and controlled, and thus power exerted, the system as a whole become automatic and self-augmenting. Overseeing intelligence is embedded throughout in the system, such that its self-consciousness is not detached and transcendent—'Big Brother' watching—but is itself a part of the system and strictly immanent: an instrumental rationality habituated to the point of instinctive reflex.

For systems, goto "system logic," page 13.

KILLING FOR REALITY

I wanna devise a virus
To bring dire straits to your environment
Crush your corporations with a mild touch
Trash your whole computer system and revert you to papyrus,
"Virus"[24]
Deltron 3030

Writing on the cusp of the digital technological revolution in *The Global Village*, Marshall McLuhan suggested that, "the satellite will body forth new tribal separatists who will make Yasser Arafat seem tame by comparison."[25] What McLuhan was intimating was a new kind of reactionary produced by the excesses of technological ordering, what can be considered as both its chaotic remainders and the fruits of technology: educated and raised within the West, perhaps, or otherwise at the bloody margins of that civilization, but in either case seeing for themselves no place within the West as such, but finding its patterns of integration through electronic media disembodying and alienating, and reacting against that system to restore a sense of identity and grasp on reality. "A terrorist will kill you to see if you are real."[26] Here though the ultimate claim to political reality—that is death for a higher Gnostic cause—subverts

the reality it hopes to regain by channeling desperate energies into the relief of overdetermined virtuality via decadent violence. Realism in politics is reduced to the war pose, the snuff film, the threatening gesture, with the real reproduced for a mass audience in the form of an anxiety over death that is only fully reconcilable by suicide.

The political aims animating what Walter Laqueur dubs "postmodern terrorism"[27] are to destroy the global technological order by driving out the capitalist market, transnational policing forces, and consumer culture, and to restore the authenticity or real being of a community from these artificial impositions. Laqueur focuses on the ineffectiveness of terrorism in achieving its political aims, and points to its pervasive millenarian projections, inspired by the mythic sensibilities of fundamentalism. Through this lack of definite purpose coupled with a vague sense of penultimate purpose, terrorism seeks a mythic return to the indeterminate potential of the origin, where, in Laqueur's words, "The premodern world and postmodernism meet."

Or as Tom Darby writes of these postpolitical reactionaries, "The Revolt is total, and it is a revolt against the West."[28] It is precisely this total vision of reactionary terrorist violence that paradoxically works to integrate the technological cosmos that is reacted against. The curious aspect of this iterative feedback loop is that the attempted wholesale destruction of the global technological order as such may not be ultimately destabilizing and fatal to Western civilization, but that the notion of an endless contest between order and chaos may function to regenerate its progressivist spirit, mobilizing social sentiments in the absence of any discrete historical goals even as a public faith in progress wanes. Indeed, terrorist attacks at various centers of the global technological order have had the effects of further integration, with the terror shifting the self-interested liberal logic of individualistic accumulation toward collective security.

Through this adaptation the idea of progress as a lockstep advancement is replaced by a process of integrated outcomes, where the revolutionary spirit repeatedly folds back upon itself to retrieve a sympathetic sense of attachment in order to bind the global community together—a collective fate experienced in the violent ecstasies of an ongoing, episodic global war. This is clearly not the glass and steel world order imagined by the early architects of modernity. Terrorist politics—seen from both sides—represents a ritualized, iterant contest between order and chaos that is irresolvable through rational dialectic because neither sets of aims are discrete, but are rather cosmological and mythic: directed toward the reordering of the world through a violent leveling of the political landscape.[29]

The futility of terrorist violence is revealed as its own specter of self-negating negation, a death after the manner of Hegel's "cunning of history" that paradoxically serves as a foil for even more rigorous programs of integration. If there is an element of cohesiveness to this it is more a mythic than a dialecti-

cal integrity. In Darby's interpretation of the motives behind what remains of action in posthistorical global politics there is "a unity in the simultaneous experience of contradiction," that is the conflict itself functions as a civilizational cause for both antagonists, yet "no synthesis or unity of the phenomena experienced."[30] Here a cosmogonic trope has interpretive significance where the dialectical form of Hegelian synthesis falls short of the substance of events, with the animus for integration reverting to a ritualized contest between order and chaos periodically revealing undetermined origins that act as openings—if not to the cumulative negation of resistances and linear progress—then to new realities formed by the retelling and reinterpretation of constitutive myths.

For a reinterpretation of myth, goto "trans-humus," page 35.
For modern architecture goto "the post-modern architecture of the mind," page 50.
For Gnosticism, goto "apo-stasis," *page 23*, or "Angelus Novus," *page 20*.

SURREALISM AND THE AMERICAN GEOPOLITICAL IMAGINATION

> *We're an empire now, and when we act, we create our own reality. And while you're studying that reality—judiciously, as you will—we'll act again, creating other new realities, which you will study too, and that's how things will sort out.*[31]

Geopolitics took a turn in the direction of the surreal during America's revolutionary, neoconservative moment, and as with all revolutions, however staid and seemingly conservative the counterreactions they provoke, something radical—in the sense of pertaining to the root essence of a thing—was manifest there. Hannah Arendt describes revolutionary movements as historical, human-made substitutes for cosmological revolutions, where the unstoppable turnings of stars, moons and planets are reproduced as worldly spectacles by the all too mundane power of violence.[32] Political action thus takes on a new, spectacular dimension that seems to transcend the limits and determinations of individual agency, tending to force one to either become swept up in the movement or stand aside and look on in awe.

The totality of revolutions can be traced to their mythic intent of turning the established, institutionalized understandings of the world over in order to return to an undetermined, original state of being, projecting back behind the sequences of historical causes and the apparent contaminations of the past in order to do something new: to free action by retrieving and conserving an undetermined, and thus unprecedented, original state. Within the American neoconservative movement, the specific scorched-earth Eden that guided revolutionary imaginations was a free market ideology, with the intent of leveling the remnants of socialist governance and reducing the domestic interference of governments generally to policing contract and property rights—a start-up

business model for reshaping global society, injected with the sort of religious fervor characteristic of the self-proclaimed virtuous elect.

Such a regressive drive toward the whole-scale transformation of global society is apparently compatible with some forms of fundamentalism. Indeed, radicalism must always be revolutionary, for in the absence of a context supplied by existent customary understandings and inherited institutional practices those fundamentalist interpretations that seek to recover the original can have no discrete established form. The origin represents the original in this sense, in that it is undetermined because generations of interpretations have not yet accrued to its irruption onto the global scene. What will be the enduring effects of the violent episode of neo-conservatism in global politics may not be known perhaps until the next generation of artists has had its way with this generation's memories, and after them the bureaucrats turning art into institutional orders, then the politicians shaping institutions by ideology, to revolution, and back to the artists again. In the past, political theorists have lumped these various functions involved in the violent dispersal of established meanings, the retrieval of resonant myths, and the poetic recreation of new values into one, as in Machiavelli's Prince as artist, or Nietzsche's Overman, acting as a personification of the processes of destruction and creation, recollection and forgetting. But it is more reasonable to suppose some epochal division of labor here, recognizing the necessity of intergenerational collaboration, if only for the reason that the interpretation of events requires time, whereas only violence is immediate and so can occur outside of the interval needed for reflection.

For surrealism, goto "Angelus Novus," page 20.

THE ENEMY AS IMPERIAL EXCESS

> *The enemy is the common denominator of all doing and undoing. And the Enemy is not identical with actual communism or actual capitalism—he is, in both cases, the real spectre of liberation.*
>
> Herbert Marcuse, *One-Dimensional Man*, p. 52

If liberation is considered as the embodied experience of transcendence from within a given system of relational potentials—being freed from processes routinized as function so as to project on a straight line tangent away from producing in order to consume in order to produce in order to consume—then, the tangential thoughts, the loose, unraveled ends of an argument take on new significances, with arrested sentences and frayed bits of logic acting as agents of undoing. One of the great freedoms is the freedom to change one's mind, and whatever the reasons given afterward, there is always something unpre-

dictable to such changes of thinking. Of course, the unaccountable has recurrently stood in as reason's other, the opposite twin, *doppleganger* and also, as oft-assumed enemy, the closest compatriot of reason-seeking knowledge. The limits of reason have in this sense as much to do with self-knowledge as the heat that radiates from every mitochondrial power plant in every cell in our bodies has to do with life.

For Socrates philosophic self-knowledge meant the measuring of one's own limits—the I know that I do not know—within the context of a cosmological order that he saw mapped into the structure of human reason itself: an eternal order of Ideas against which dialectical discourse could only bang its head and hope to hear a resonant echo of the order of things within one's mind, one's community, and one's cosmos. But under the conditions of modernity, and in the gap opened up between an interiorized sense of self and an objectified external world of things it becomes apparent that the limits to human knowledge need a new source. Instead of a cosmos composed and structured by a rationally intuited harmonic order of ideas, the perfectly spherical orbits that Parmenides and Plato imagined are replaced by a new world within which order is identified with the forces governing matter in motion, a scientific model of reality mimicked in the regulated behaviours of social atoms in the Hobessian state. These patterned random exchanges are considered knowable when they are informed by a projected order of lawful, experimentally verifiable (that is reproducible, hence ontologically insignificant) systematically formulable truths manageable within the sphere of technical expertise. Science freed of metaphysics thus becomes a matter of manipulation and determination, with the fragile remains of reality registered as reactions from within the technological system.

For transcendence, goto "the habit of transcendence," page 89.

THE IMPERIAL PERSPECTIVE

Not a view from nowhere, strictly speaking: there is a horizon, a line separating light from dark and ground from sky. One sees a distant object and therefore one sees from a subjective perspective—the standpoint of the spectator pinned down by triangulation. The spectacle is earthrise: the shine of reflected light and the glow of morning oceans, the swirl of clouds in someone else's sky, an earth so far away it seems close.

A vertigo of homesickness pulls down on the heart. With an abyss of blackness in front, suspended over the earth from an inhuman perspective, how can we remain human without a home and its limits—its walls, doors, and windowsills? What will become of the world if we do not stay human?

Figure 4.2.[33]

For posthumanism, goto "the relief of the human condition," page 52.

NOTES

1. Yevgeny Zamiatin, *WE*, translated by Natasha Randall (New York: Modern Library, 2006), 103.
2. Georges Bataille, *On Nietzsche*, Bruce Boone (trans.) (St. Paul: Paragon House, 1994).
3. *2002 National Security Strategy of the United States of America.*
4. Jean-Jacques Rousseau, *The Social Contract*, I.vii.
5. G. W. F. Hegel, *Phenomenology of Spirit*, (Baillie trans.), 605.
6. ibid.
7. Alexandre Kojève, *Introduction to the Reading of Hegel*, 162fn.
8. Ibid. In the same compact footnote Kojève relates that these archetypes were formulated during "voyages of comparison," otherwise undertaken to negotiate trade agreements with the Japanese Ministry of International Trade and Industry on behalf of the French government. In Kojève's eyes the Japanese had had time to acclimatize to a synthesis of opposites because they had arrived at the end of history first—all acting as slaves to technological integration while harboring the masterly instinct of snobbery. What had been done, in effect, was to preserve that honor-seeking drive that distinguishes human beings by democratizing an imperial aesthetic.
9. Jean-Jacques Rousseau, "Discourse on Inequality Among Men," in *The Essential Rousseau*, Lowell Blair (trans.) (New York: Meridian, 1975), 165.

10. This often-misunderstood term is explained in Marshall McLuhan and Bruce Powers' book *The Global Village: Transformations in World Life and Media in the 21st Century*. (Oxford: Oxford University Press, 1989) According to McLuhan's analysis of the retribalizing effects of electronic media, the concrete conditions of possibility of globalization are also the grounds of global war (suggested by the title of another book of his—*War and Peace in the Global Village*)—a condition of violent antimonies within which tribal empires and cosmopolitan barbarians are forced to live together.

11. Friedrich Nietzsche. *Beyond Good and Evil*. Marianne Cowan (trans.) (Chicago: Gateway, 1955) §208–9.

12. ibid.

13. ibid, §36.

14. See Chantal Mouffe, *On the Political*, (London: Routledge, 2005). The emphasis on the contested dimension of the political and the currency of the ontological notion of "the undecideable" among the political left can be taken as a sign of the end of the Enlightenment project, when its vanguard has lowered the rallying flag of universal reason. The resuscitation of as illiberal a thinker as Carl Schmidt as inspiration for this new new left shows how opposite perspectives tend toward, if not a positive, consensus-driven identity, then rather a politics of collusion by opposition.

15. Jan Potocka, "Is Technological Civilization a Civilization in Decline?" in *Heretical Essays on the Philosophy of History*, Erazin Kohak (trans.) (Open Court Publishing, 1996).

16. G. W. F. Hegel, *Reason in History*, III.2.a.

17. See http://antwr gsfc.nasa.gov/apod/ap991108.html (01.02.07).

18. Performance of Sudeten German Gymnasts, Urstinad Labem, 1934, from "Bodies in Formation: mass gymnastics under communism" Petr Rubal (curator). http://www.osa.ceu.hu/galeria/spartakiad/online/ (04(02/08) Originally published in Franz Heger (ed.) *Sudetendeutschtum. Ein Land, ein Volk und seine Arbeit*. (Boehmisch Leipa: Ed.Kaiser Verlag, 1936).

19. Sophocles' "Ode to Man" in *Antigone*.

20. Albert Speer comments that the limits of German National Socialism as a social movement were largely technological, since the movement depended on the actual assembly of bodies at rallies and marches, and was thus constrained by the physical boundaries of those assembly places. In Speer's architectural design for a new Berlin he imagined a giant assembly hall that would have been so large as to develop its own weather patterns from the condensation of evaporated breath and sweat—in what would have been (Man forbid) a cosmos in doors. See his *Inside the Third Reich* (Toronto: Macmillan, 1970) 50–70, his pre-war *Architecture of Ruins*, in which he puts forward the startling thesis that the measure of architectural achievement should be the capacity of its ruins to inspire, as well as Stephen Helmer's study *Hitler's Berlin: The Speer Plans for Reshaping the Central City*, (Ann Arbor: UMI Research Press, 1985).

21. *Leviathan*, 81.

22. Alexandre Kojève, "Outline of a Doctrine of French Policy," *Policy Review*, translated by Erik de Vries, (Hoover Institute: August & September 2004).

23. Thomas Hobbes, *Leviathan*, "Introduction."

24. Deltron 3030, *Deltron 3030*, (San Francisco: 75 Ark, 2000).

25. McLuhan, Marshall & Powers, Bruce. *The Global Village: Transformations in World Life and Media in the 21st Century* (Oxford; Oxford University Press, 1989), 115.

26. ibid.

27. Laqueur, Walter. "Postmodern Terrorism: New Rules for an Old Game " *Foreign Affairs* 75 (September/October 1996), 24–36. http://www.mtholyoke.edu/acad/intrel/laqueur.htm (04/02/08).

28. Tom Darby, *The Feast*, (Toronto: University of Toronto Press, 1982) 182.

29. Naomi Klein describes a similar function of advanced capitalism in its drive to open up free markets by taking advantage of the leveling effects of natural and human made disasters. See *The Shock Doctrine: The Rise of Disaster Capitalism* (Toronto: Alfred A. Knopf, 2007). However, the crisis mentality cannot be reduced to the interests that inform particular interpretations of crises. The concept of making a new beginning by violent means is not simply a strategy, but represents a radical remaking of the idea of progress that has applications beyond neoliberalism—from Islamic fundamentalists to anarcho-primitivists. After all, a lurching return to an original, unprecedented state leaves substantial room for interpretation as to where to go from there.

30. *The Feast*, 213.

31. Ron Suskind, quoting a senior advisor to American President G. W. Bush in "Without a Doubt" *NYT Magazine*, October 17, 2004, quoted in Niall Ferguson, *Colossus: The Rise and Fall of the American Empire,* (New York: Penguin, 2004).

32. Hannah Arendt, *On Revolution*, (London: Penguin, 1963). She writes that "only where change occurs in the sense of a new beginning, where violence is used to constitute an altogether different form of government, to bring about the formation of a new body politic, where liberation from oppression aims at least at the constitution of freedom can we speak of revolution." 35.

33. "Earthrise," by Apollo 8 astronaut William A. Anders, GPN-2001-000009, NASA.

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Toivo Koivukoski teaches political philosophy at Nipissing University in North Bay, Canada. He has put together several collections with his colleague, David E. Tabachnick: *Globalization, Technology and Philosophy* (SUNY: 2004); *Confronting Tyranny: Ancient Lessons for Global Politics* (Roman and Littlefield: 2005); and *Reflections on Empire* (University of Toronto Press: forthcoming). This is his first single-author monograph, and though the ideas expressed are his responsibility, the technological condition that made them possible is all of ours.