

Robotics (The Bomb's Body)

The humanoid machine, perhaps semi-autonomous, has a long history in Western thought. As Andreas Huyssen notes, when eighteenth century scientists began to understand the human being in terms of machine metaphors, popular culture followed suit.¹ Performances of automata who sang, played musical instruments, or danced became major hits. But these embodiments were only the first, enthusiastic expressions of scientific breakthrough. As the nineteenth century brought the image of the threatening android to the fore, danger replaced hope and confidence. No subsequent embodiment of hopes could reconstruct the naive delight of the previous century. The twentieth century names those pseudopeople (“robots”) and gives them a special place in both scientific and popular culture. The robot theme is found in science fiction books and movies, but also in advertisements, editorial cartoons, pop music, dance, and the visual arts. Even if the Artificial Intelligence (AI) masters took far longer than they first predicted to produce any convincing intelligence algorithms at all, they can produce enough of an image to keep this grand displacement going. Their reinvigoration of the nineteenth-century automata finally completes the Cartesian dualism. Computer “brains” guide robotic “bodies.”

In our era, the construction of mechanical people has intervened in public life; in defense policy, in industrial policy, in research institutes and schools, the robot is unexpectedly our new companion. The computer—a twin issue to the robot—even became a social and political issue during the 1980s. Schools, families, writing, workplaces, play, and therapy are

only a few of the sites where emergence of computers occasioned a renewed dialogue about technology. When this early rage over computers subsided, a residue or trace remained—an interest in the technologies and images of humans absorbed into a machine world. As a policy concern (when automation displaced workers) and as a literary device (when cute *Star Wars* robots received new defensive assignments, in the Strategic Defense Initiative), robots joined computers in our political discussions. The robot, so to speak, stepped forward.

In this chapter, I am trying to relate this strangest of human-created mirrors to nuclearism, our most frightening creation. Literary criticism directs our attention to robots when it suggests that we pay attention to mythic dimensions, noting especially the exclusions, displacements, and absences that pervade any mythic discourse. Still, there is a resistance to taking the robot seriously. We try to avoid an unavoidable conclusion; the relationship of people and machines will now be permanently controversial and intriguing. Still, long after that development has become evident, the presence of the cyborg somehow embarrasses us. On the one (biotic) hand, the robot is too obvious and childish; on the other, it is too metaphorical and literary.

I need to be explicit about why the robot belongs in a discussion of nuclearism. In a limited sense, the robot arrives as a direct consequence of the disappearing warrior, discussed in the previous chapter. There is more to the relationship of technology and politics than the pace of action and decision that is forced on us by communications technology. If this were only a question of pace, it would make more sense to cry “slow down!” But today such a call would be an irony, a joke; we’re far beyond the stage where our resistance to technology makes sense to us, even though the tension between development and autonomy has long been debated, as Langdon Winner has shown.² Instead, society’s relationship with technology has changed so significantly that many theorists now raise philosophical issues—questions of agency, autonomy, intelligence, bodies, and, hence, the opacity or clarity of basic political choices.

In short, the robot is one of the vehicles we use to discuss the social and cultural transformations of our time. At the basis of such discussions is the issue of agency; if the bomb can end (or mutate) society, in what sense do humans retain responsibility and capacity for action? Donna Haraway’s treatment of the cyborg (the central image of what she calls “my ironic faith, my blasphemy”) confirms such an approach.³ Even the name *cyborg* (for *cybernetic organism*) always suggests an exemplary connection of human and machine. In the world of work and in the military realm of C³I (command-control-communication intelligence), the cyborg is the image that registers. It is the fiction that nonetheless maps

“our social and bodily reality.” Having identified the closeness, the intimacy of machine and person, Haraway can locate a crucial tension. “The relation between organism and machine has been a border war. The stakes in the border war have been the territories of production, reproduction, and imagination.”⁴

Such “border wars” are of special interest now; the border metaphor relies on mapping and emphasizes disjunction. One such problematic unity is nature itself, as Haraway shows. “The certainty of what counts as nature—a source of insight and a promise of innocence—is undermined, probably fatally.” The difference between natural and artificial, mind and body, becomes thoroughly ambiguous. “Our machines are disturbingly lively, and we ourselves frighteningly inert.” Thus, in Haraway’s argument, it is the cyborg—not ideology or structure—that augurs the escape from unities and origins, “a creature in a post-gender world . . . resolutely committed to partiality, irony, intimacy, and perversity.”⁵

I offer the shifts and reversals rehearsed in this chapter as an odd, off-balance reminder. A political position we would speak like this would be a politics of the code, displacing all earlier politics based on nature, essence, or presence. The appropriate mode for studying this new, perhaps distressing, political form would be more literary than scientific. In this search for a code, what we find may be ironic, rhetorical, and far more tentative than any scientist could honestly be.

We could even propose that the bomb now has a body, seemingly more material than the mushroom cloud and more visible and accessible than the specific weapons that are only part of a larger “system” of nuclear warfare. Even if “merely” in code, *the robot is the body of the bomb*. The two technological phenomena that have most fascinated us in the last four decades are now explicit twins. In the now out-dated metaphor of rationalism, the computer is the brains of this operation, the bomb the muscle. In its physicality, the robot is the encoded sign of nuclearism.

This is an ambivalent development; robots are highly metaphorical and charged with mystique, but they do seem to represent some sort of worldly presence. The important political question contained in this ambivalence is whether this is an embodiment that might produce an actual critique—replacing the unfocused anxieties and false reassurances of other oppositions to nuclearism. My project, in this chapter, is to study the robot (up close and digital), to see how it might intervene into the landscape of disconnected signs and meaning I have begun mapping in my discussions of nuclear criticism and the warrior mythos. My claim is that these discussions of computer, robot, bomb, and self can best be understood as linked metonymies, mapping reversals, displacements, and desires too dark to confront and too powerful to discard.

The Absent Army

In the previous chapter, I argued that the warrior has become an impossibility; now, we can examine a second layer of disappearance. The U.S. military in particular and “the nuclear threat” in general are characteristically opaque, somehow encoding an absence that nonetheless dominates us. We know that there is an enormous commitment by this country to funding and encouraging militarism. But military artifacts are remote, often incomprehensibly complex, and philosophically threatening. We have a strange militarism: few parades of troops and none of weapons, secrecy imposed even on devices completely familiar to potential opponents, and an economic analysis of military bases that focuses on retail activity in their neighborhood.

Opponents of contemporary militarism have often commented on this opacity, diagnosing an avoidance strategy. Nuclear weapons have such awesome potential and such an odd, inverse mission that we invoke a taboo, as Jonathan Schell explains. When we do see and touch mock-ups of the bomb, our reactions seem to reveal that this is a sacred artifact, not merely a patriotic one. In Los Alamos, New Mexico, the museum of the famous atomic lab displays models of the Hiroshima and Nagasaki bombs (“Thin Man” and “Fat Man”). The museum mounts these extraordinary artifacts—models, of course—in a thoroughly unceremonious manner, in the back corner of a bright and prosperous “visitors’ center” that features historical information about the lab and educational demonstrations about nuclear physics. The gait and posture of visitors change when they near the models, even though nothing about the museum’s design should evoke such a response. No children pose for snapshots on the nukes, as they might when visiting Civil War cannon or modern fighter plane displays at other museums. Visitors hesitantly touch the Los Alamos models as if they were icons, which they are; taboo icons, at that.

We thus have at least two predominant ways of dealing with images of militarism. On one hand, the most abstract symbols are held in an almost hysterically high esteem; there is the flag-burning controversy, of course, but also the pervasiveness of pseudomilitary fashion in almost every area of design. Stylists make flight jackets and pants, trucks, eyeglasses, and untold other products that seem to be military artifacts but are not. On the other hand, it is seldom transgressive, now, to avoid the symbols of militarism. The encounter with the Los Alamos museum suggests that we are made uneasy by the honest, straightforward display of what ought to be, by any prenuclear logic, patriotic signs. In other words, deterrence now does not even have simple, direct, and positive symbols, as the Richland High School students mentioned in my introduction discovered. Armies have long thrived on flags, uniforms, badges, and the other sym-

bols of their presence. There has been some tension between the glory of these signs and the gore they represent, but this tension is now unmanageable. The Strategic Air Command's slogan, "Peace Is Our Profession," now strikes more than just pacifists as absurd.

This opacity (of both the military and the nuke) is explicit, reversing an old era in which the visible, massive presence of military forces reassured citizens by warning potential opponents. Now, the bomb threatens to disappear entirely. We can admit the hazy "visibility" of its effect—the mushroom cloud or the shock waves of the underground test. But the bomb is hidden from view, almost as thoroughly invisible as the radiation it would unleash. In contrast to its many predecessors, this weapon is kept away.⁶ The military routinely "refuses to confirm or deny" the presence of such weapons in any particular location. The Soviet practice of parading their nukes during the May Day parade seems quaint and not quite civilized, even though parades of the military were an American staple for generations. (It is not surprising that Gorbachev chose the 1990 May Day parade as an opportunity to stage a demonstration. He is far too postmodern a character to suffer that display without some embarrassment.) Occasionally, antinuclear activists in the United States have surreptitiously photographed the movement of weapons on military bases. In the 1970s, such pictures became major front-page news in Honolulu. In an example mentioned earlier, visibility was an explicit issue in demonstrations against the Pantex weapon-carrying "white trains."⁷

The military's role in computer and robotics development has been as secretive as its other endeavors. These devices have been—at every stage of development—artifacts of militarism, first and foremost. Commercial use—the "do not bend, fold, spindle, or mutilate" billings by which computers first became publicly visible—spread computers throughout society, but obscured their actual development path. Popular histories of technology frequently focus on devices associated with consumer products such as the telephone, rather than on military electronics and air traffic control, both of which played a larger role in the development of computers. Bell Lab's work on the transistor is more widely known than that of Texas Instruments; we thought we knew the products Bell produced, and we conveniently forgot its role in the Safeguard ABM system that preceded SDI. Even though IBM (International Business Machines) is a major defense contractor and sold most of its early computers to the military, we perceive it as involved in commerce and education. Honeywell became controversial for something called the "automated air war" in Vietnam, not for the computers that made such a strategy possible. And Motorola makes TV sets.

By now, this ritualized opacity is so well in place that certain kinds of visibility can be incorporated without endangering the overall ritual. Or,

perhaps, the computer and robot are now so pervasive that they must be both opaque and visible, at the same time. In either case, however, the robot and computer are recast as calculators, number-crunchers that could hardly be a threat. But even that reconciliation backfires, entering the map of social metaphor in an odd, disconcerting way.

Ellen Willis gave expression to the “calculating machine” metaphor and linked it with several types of catastrophe, finding the common thread. Writing shortly after the spring 1979 implosion at Three Mile Island, Willis reflected on her unwillingness to calculate continually which new disaster scenarios seemed most likely and, thus, should motivate serious preparation. “In short, I lack[ed] the entrepreneurial attitude toward apocalypse.”⁸ Willis reports that neither she nor her friends took TMI seriously at first, and certainly they did not evacuate their New York city homes. This turned out to have been the right “choice,” even though it was not really a choice, since the criteria were so ambiguous. Choosing right was no confirmation, no reason to be smug. The calculating, entrepreneurial attitude Willis wishes to evade continues to be called forth by political events. We have often been in situations that demand that great decisions be made before we have quite captured the categories of choice. Events of a certain type seem to place us in a continual pattern, trying to figure out how to respond. The only well-established alternative, mass political change, is undeniably “a long-range affair,” offering little or no consolation when events such as TMI suddenly overtake our calculations.

Willis conceded that her response to TMI was “a kind of feudal fatalism. I identify with the people who lived on the slopes of Vesuvius.” Amidst what conservatives see as America’s triumph over the volcano, even activists sometimes seem comfortable with academic exercises of critique and entrepreneurial games of cynical calculation. We may forget that the earth will soon shake, perhaps today, and our act is still pitifully out of order. Are the volcano’s rumblings real this time? These constant “rumblings” unsettle even the most politically committed among us. Even though the events of TMI turned out to be relatively minor, the episode reminded Willis how high the stakes might be. Remember those German Jews who stayed too long? She can identify with their judgment “that the Nazis’ anti-Jewish campaign would be limited and temporary, that they could weather it.” To leave what had become a comfortable, middle-class setting “must have seemed an unnaturally drastic response.”

This is melodramatic, and that’s the point. The politics of nuclear technology is still unfamiliar, almost mythically hard to grasp. Such an issue—closely related to Baudrillard’s catastrophe—invites melodramas of calculation (now with CNN’s “Round the Clock Coverage”). It tests wits. We may choose wrongly, or our non-choices may be disastrous. At the same time, meaning, cause, and effect all have a notably remote quality; we

know these speculations will be abstract—will remain unconfirmed, socially or objectively—until events provide their own verification. Rather than relieving us of the responsibility of choice, however, that quality forces us to shore up our doubts by lodging the choice in as “responsible” a discourse as possible. And calculation is, as we know very well, responsible.

Not only nukes, but also each geopolitical crisis that surrounds them (from Cuba in the 1960s to Iraq in 1990) place us in a continual pattern, trying to “figure out”—to calculate—how to respond. We sit before the tube, clicking the remote control as if it were the pocket calculator it resembles, figuring the odds associated with decades of racial conflict, Vietnam, recurring oil crises, and, of course, the Gorbachev era. Even if this pattern of waiting and calculating had characterized politics before our age, the contemporary era finds us reacting to dramatically new political spectacles, further from our experience but more vivid than ever. This is why TMI touched such a nerve; here was a genuinely new technology—itself abstract, experienced indirectly even by insiders—that had to be folded into our existing frameworks.

If the calculator metaphor was not quite enough, however, this late stage of modernity could come up with other possible dodges for the mess of ironies and perversities that overrun the computer/robot/nuclear age. In the next section, I raise the possibility of a social-learning, education metaphor, based on the thorough infusion of the computer into society. In the grand tradition of Rousseau, backed into the corner of a diagnosis at odds with any conceivable alternative, we could play education trumps.

Techno-populism

The recent discussion of computer technology may not have seemed, at first, to be a coded version of the nearly half century of debate over the bomb. This time, the debate had a notably popular tone, not the dark neurosis of the coded repressions we have learned to expect of the nuclear age. The intrigue with computers was neither abstract, academic, nor entirely confined to elites. State legislators made funding for classroom computers a priority. Teachers at every level of education at least briefly shared a preoccupation that could only compare in its scope and urgency with the Sputnik fervor of the 1950s. Writers explained to colleagues that they had, finally, purchased a machine and could now hardly do without it. Citizens who might have been merely annoyed by pinball machines or jukeboxes at the local soda shop mobilized to force zoning hearings aimed against the video game arcade at the shopping mall. Having finally decided that a stop at McDonald's was a relatively innocuous bribe in the

ambiguous struggle of contemporary families, parents found themselves deciding whether to give the kid a quarter with which to shoot aliens.

In short, a fascination arose as we watched routines of work and leisure transform at a pace so quickened as to seem palpable. Pop-tech “computer literacy” courses and simple familiarity (accumulating at a startling pace, with sales of millions of computers) may have softened our concern, but the political framework for our concern with computers was not obvious. While I understand that there are many ways to investigate the role of robotics—in terms of workplace politics, political economy, weapons technology, and so on—I have chosen to emphasize the cultural and literary (the textual, in several formats). This approach is not complete or definitive, but it does have the virtue of forcing our attention to the odd, displaced qualities of an issue with strangeness at its core. In American political culture, what is familiar gets defined as populist, but the invention of computer populism was *odd*.

Proponents of the microcomputer (or, as IBM dubbed it, the “personal” computer) argue that these things are distinct from their larger relatives. Computers became a public presence at the moment when processing capability became so inexpensive that home computers were possible. This was a public movement, not an elite, corporate one. The major computer companies and academic experts had consistently predicted home computing based on time-sharing with large, central computers, even after microprocessors (on which the home computer is based) had become available.¹⁰ Acting on populist, hobbyist impulses, individuals marginal to the world of computer commerce created a “microcomputer revolution.” It should not be surprising that the political populism of the earliest microcomputerists diminished as these machines became consumer items. After all, an ideology of “critical distance” or perspective requires new (or otherwise distanced) points of departure. Depoliticized and familiarized, computers soon lost whatever critical edge they enjoyed within such an ideology. The machines could be derogated as just more commercial technology, either as commodity or productive technology. The corporate MIS (“Management Information Specialist”) displaced the anarchic amateur experts and the machine—never mind how extraordinary—was reabsorbed into dominant ideologies.

In some ways, the computer may have conspired, all along, with this domestication. In retrospect, we might well conclude that whatever “microcomputer populism” arose never did have much ideological content, the experiments in socializing of information conducted by Lee Felsenstein and Berkeley’s Community Memory notwithstanding.¹¹ Insofar as computers were ever populist, theirs was a populism of style—extra-corporate and at least intermittently cooperative. Such a populism could be “authentic,” but it would inevitably risk a characteristic lack of durability. The belated but ultimately triumphant efforts of IBM, combined with the unexpected

omnipresence of (frequently mundane) games, confirmed that the dominant ideologies of the computer also applied to microcomputers.

To seek a closer view of the computer, rather than a broader perspective where ideological critique might still seem possible, we would need to pursue the people who desired the machines most intensely, displaying in that relationship both affiliation and more perverse possibilities. In this case, the desirer is called (could Hitchcock be far behind?) “the hacker,” suggesting a destructive, transgressive impulse. At the level of creed, these programmers articulated a privileged status for learning, giving discovery itself a pure preference over any competing interest, notably including property or power. The “hacker ethic” centers on an openness of learning and teaching, finding practical ways to elevate those practices over other (usually more powerful) social goals. This much of the description may make the hacker seem a creature of the Enlightenment and critical distance; in tension with that possibility is the rigorously antihierarchical, disruptive, even subversive tendency of the hacker and his or her hack. Unlike the Enlightenment humanist, the hacker could never hold “legitimate” power.

The hacker habitually relegates to lower status ownership, security, and the managerial impulse for hierarchy, security, and control. Their aesthetic flair privileges learning against the strong, centralizing impulses implicit in the technology they love.¹² What the many chronicles of the hacker often miss, however, is the congruence between this creed and the object of the hackers’ desire: computers characteristically acquire codes and execute them, with remarkably little concern for the intent or context of the code. Both the successful program and the failure (“GIGO—garbage in, garbage out”) characterize the computer. The hacker is an overdetermined sign, attached to the most dominant of technologies, but still retaining traces of subversion.

For a time, before the ideological response found a second wind, the techno-populism of the hacker threatened to go mainstream with this undistanced populism of desire, information, and indifference to consequence. Consider the instance of LOGO programming language inventor Seymour Papert, who issued the most aggressive statement of this populist impulse.¹³ Papert even argued that the pedagogy enabled by LOGO actually implied the demise of schools. Of course, the rapid spread of LOGO produced no radical assault on schooling. Educators may have simply ignored Papert’s presumption of computing’s radical potential, responding instead to disciplinary practices more central to the schooling project. Why think of revolution when one could introduce “teaching materials” that would keep students attentive (and in their seats), while convincing parents that something pertaining to future employment happens at school?

Still, it is no shock to the hacker that things are ephemeral. After all, hackers deal with the most ephemeral events; information moves at the speed of light inside those black microchips. Even Papert's brief effort at political definition stands as an unusual and notable episode. The populism of early microcomputerists more often slipped into the utopian apologies of AI partisans such as Marvin Minsky, and pop-tech assurances of enthusiasts who insisted that computers were nothing to fear.¹⁴ None of these apologies completely dissipates the characteristic edginess of the hacker, the asocial intensity of the nerd. The residue of unaccounted-for myth and desire is edgy and giddy, not assured and confident. Every reassurance is dogged by what it must reassure against—namely, an ambivalence that is not spurned. We remain uncertain about the meaning of these machines, long after the ideological critique has lost its best critical edge.

Looking at the computer from the odd angle of the hacker, issues of agency and autonomy displace Enlightenment concerns about responsibility and humanist hegemony. These displacements will relate to our investigation of the nuke, but before returning to that topic, there is another aspect of computers to consider. Theorists have recently emphasized the visibility of things, asking how something becomes visible or invisible, how an event might enter or resist the realm of the image (a field of representation). In this area, too, there is useful work to be done on the computer.

The "Black Box" That Walks

Although technology has always promised power, this new technological populism goes further, fulfilling its own populist rhetoric by producing *expectations of openness*. Concern about the social, political, and pedagogical aspects of computers displays a special characteristic; although these machines are omnipresent, they are also opaque. Although the meaning of other machines and technologies may seem transparent, computers elude our attempts to categorize, even though they also exhibit the transparency of guileless, speed-of-light transformation. This technology is somehow obviously, almost "self-evidently," significant. We seldom doubt that computers will "change our lives," as the saying goes, but the technology is still opaque and inaccessible. We catch ourselves taking note, like the frightened child, that there really is no person inside the vending machine that talks.

Hackers use the term "black box" to refer to a self-enclosed mystery—a competent but seemingly opaque piece of machinery, encased not only in metal or plastic, but also in a puzzle. Taking their joke seriously, we find that the black box is metaphorical in an odd way. More precisely, it is transgressive in that it defies metaphor, pointing instead toward puzzlement and—crucially—absence (of explanation, meaning, or

simple direction). Computers—the ultimate black boxes, since they can be transformed, within that case—register an opacity that diverts our attempts to locate their meaning, their standing in the world. The computer is not simply a subservient machine, nor is it (we hope) quasi-autonomous and, hence, pseudohuman.

Sherry Turkle investigated this opacity by observing the difficulty young children have when asked to categorize computers and electronic toys. Turkle observes children in the act of discovering problematics about self and knowledge, prompted by encounters with a computer. These things might be alive; after all, they have the ability to surprise. They may (or may not) be self-aware, which may (or may not) be important.¹⁵ Turkle's subjects are on to something; these things are not mechanical. They refuse to offer the reassurance that if we disassembled them we could eventually understand how the gears and pulleys work. On the contrary, computers have a maddening lack of moving parts. Only after a leap of imagination (of philosophical categories) could we begin to call these things mere machines—explicit parallels of our automobiles, sewing machines, and typewriters.

As I suggested earlier, this opacity is all the more troublesome since computer technology (or, as it is called, information technology) promises clarity. Lacking machine noise, emerging from industrial sites (always located in oxymoronic “industrial parks”) that are absurdly lacking in the dust and grime we just know must characterize a factory, the computer age is so light and clear that it edges toward invisibility. Haraway emphasizes the clarity of the disappearance: “Our best machines are made of sunshine; they are all light and clean because they are nothing but signals, electromagnetic waves, a section of a spectrum. And these machines are eminently portable, mobile—a matter of immense human pain in Detroit and Singapore.” Whether the machines are opaquely absent or clear as they disappear, the implication is the same. As Haraway notes, “The ubiquity and invisibility of cyborgs is precisely why these sunshine-belt machines are so deadly. They are as hard to see politically as materially. They are about consciousness—or its simulation.”¹⁶

There is more to this hiddenness than a lightness or a lack of moving parts, even though these attributes are important. The opacity of computers also provokes reconsiderations of scale and transformation. The mobility mentioned by Haraway is a function of a tendency toward miniaturization that also contributes to opacity. *The Wizard of Oz* would not have been such a reassuring allegory if the drawn curtain had revealed a microscopic Wiz. The watch-on-a-chip and tiny pacemaker are at least part computer, and the notebook-sized “electronic workslate” portable computers are, unquestionably, fully computers. At the other end of the scale, the computerized Cheyenne Mountain facility of the Strategic Air

Command, looming over Colorado Springs, is described as an integrated, complete, national airspace monitoring system of huge scale in both size and effect. If it is the “CPU” (central processing unit), most of the continent is its “peripheral.” This diversity of scale is unique in our accustomed world of things. A tiny model of a car—or a huge filmed image of the same car—differs in scale from the actual car, but the model cannot be confused with its object. There is no such home image for the computer; boundaries shift and the notion of a core object becomes harder to focus.

This flexibility of scale contributes a layer of opacity; what could these outrageously diverse things have in common? When we investigate that opacity, however, we soon find yet another layer of opacity at “the heart of the matter.” The computer’s core not only lacks mechanical parts; we cannot even see the working parts of a microprocessor without extraordinary (and confusing) magnification. Haraway’s take on this miniaturization emphasizes the ubiquity it makes possible. Microelectronics are essential to virtually every modern machine. Accordingly, these machines “are everywhere and they are invisible. . . . Modern machinery is an irreverent upstart god, mocking the Father’s ubiquity and spirituality.” Our personal experience of the machine changes, reversing the terms of modesty and giantism; the microprocessor creates the possibility of the tiny-but-deadly. “Miniaturization has turned out to be about power; small is not so much beautiful as pre-eminently dangerous.”¹⁷

The scope of computer functions also assists this odd invisibility, hindering our attempts to focus. The computer is the most flexible of technologies, in terms of the variety of operations performed. And this flexibility is an essential characteristic of computers, as their proponents constantly remind us. Again, children have modeled a fascination with flexibility. Perhaps the least understood recent toy fad was the (well-named) Transformer, a small model robot whose only function is to be manipulated into a physical form that hides its robotic appearance. In one example, a robot transforms into a model of a heavily armed space ship. Although some parents were surely relieved that Jane and Johnny no longer wanted simulated Uzi machine guns for Christmas, the Transformer taught lessons, too. The robot is mythically flexible, capable of unimagined mutations if only one accepts that those changes are finite—planned in advance by some unknown designer.

Incorporating this opaque, shifting phenomenon into our existing categories is clearly not a trivial task. This technology makes us uncomfortable, in large part, simply because it confounds categories, eluding our grasp. Going even further, we begin to suspect that these machines might think. Despite a long-standing record of overstated goals and underachievement by Artificial Intelligence (AI) scientists, we seem compelled to take AI very seriously, even when it becomes clear that the possibility

of pseudothought informs only a few of the policy questions involving computers. I cannot venture far into that argument here, but doubts regarding the status of machine “thought” recur often in our efforts to sift through these diversions and opacities. Skeptics such as Dreyfus and Searle have aggressively criticized the philosophy of mind implied (perhaps, required) by AI.¹⁸

More questions are raised by this portrait of a technology so opaque, flexible, shifting, and elusive. These are characteristics we would usually associate with a lack of agency and responsibility. In a sense, these are not surprising characteristics; they are, instead, precisely the elements we would expect to be raised in a managerial age, when jurisdiction battles erupt on the scene of any disruptive outbursts. We should expect these issues of control, and we would probably predict that such a recalcitrant (read “dangerous”) technology be heavily controlled. It is toward that central political concern with control that I will turn next.

Robot Power

The issue of control is central to our talk of robots. “Power” and “control” are pervasive terms in the discourse surrounding computers, appearing repeatedly in almost every article, advertisement, and instruction manual. As if to reassure, designers equip computer keyboards with “control” keys, as well as an “escape” key. Tropes of capacity and speed are routinely conflated with power—“this model is really powerful: 200 megs of storage, four megs of RAM, and a ’486 chip.” Proponents of the new technology routinely promise untold opportunities to automate the annoyances of work and life. Opponents warn of easily implemented, almost casual surveillance at a level previously unimagined.

Proponents of computers emphasize the role of human choice in the controlling of any “tool,” and thus easily fit the relationship between “person” and “tool” into a discourse of addiction or pathology. It is our choice and we’d better choose well, else the techno-bogeyman will get us. But this will happen only if we choose poorly or abdicate our responsibility to impose a discussion of values on our day-to-day activities. Critics portray the fascination of hackers with solipsistic, neurotic control, abused by this technological engagement. They see hackers as damaged goods, people unable to function in social contexts, foreshadowing what would happen to us all if we fail to preserve human values. There is a traditional refrain, heard even when Byron addressed Parliament to question the level of force used against Luddites, who he thought might foment an overwhelming social revolution by breaking those looms that would surely turn users’ bodies into unskilled machine appendages.¹⁹

When we give computers either fictional or mechanical bodies, we reveal a fascination not only with technology but also with its twin topic, control—more specifically, the internal control of bodies by distinctively contemporary “selves.” Our choices do more than reveal us. They reflect an already given discourse about control, defining a range of possibility. In literature, robots frequently undergo a familiar pattern of control. Frankenstein’s monster became aware of his independence—he could move autonomously—experimented with it, offended the community, and was pursued so that he could be subjected to (bodily) control. In an ironic twist, the monster even tried to negotiate terms for a controlled, disciplined range of activity, a negotiation his creator could not face.²⁰ The predicament is a singularly modern one. Heroic science joins human responsibility in a pair that then begins to run amok. An oppression dilemma is enacted, and the participants know they have helped constitute the epic scene, to a tragic end.

Our hope is for machines that could offer unthreatening help, but the hope is shadowed by the fear that these new subjects might rebel, somehow renewing issues of domination, of politics. Perhaps concerned that machines could displace us with their “mental” as well as physical abilities, we anticipate help of the kind bodies can lend. We simply presume that technology should be under firm human control, and thus settle all technological issues by metonymically assuming that technology *is* under such human control. While Mary Wollstonecraft Shelley could focus on the doctor’s torment and guilt, modern writers have had to confront the issue of technological autonomy, which is also the key to the contemporary popularity of revised Frankenstein fables in which the torment of the monster is finally sad, and the doctor is fully monstrous. Executing this switch, modern retellers of this fable establish the grounds for our own epic tragedy. We fear the subservient machine might become autonomous, but we have also witnessed the surpassing of Dr. Frankenstein in the technology of surveillance, control, and discipline.

In this century, as Michel Foucault argued, the control of bodies is a central fascination. Without agency or conspiracy, power operates on bodies, grafting its concerns onto them. With apprehension and respect, we grant the computer a special status when we give it a body. Those bold enough to postulate the autonomy of machines—Jacques Ellul on one side of the polemic, proponents of AI on the other—soon find themselves under critical attack. When the editors of *Time* made the computer “Man of the Year,” they both participated in this popular embodiment and suffered criticism for that hint of autonomy. We will insist that our computers have robotic bodies, thank you, but the easier the availability of a power switch, the better.

This nervousness about autonomy suggests that the control at stake in the era of the robot is a different kind of control, unfamiliar to earlier theories. The robot controls itself, after a programmer installs the appropriate rules. It is this aspect of robotic discipline that makes these things the archetypical mirror of the postmodern self. Robots displace the factory, which had served as the modern age's mark of control. The steam-driven factory machines of the nineteenth century represented an externality of control. The most important political relation engaged by the self was with an externalized managerial apparatus of supervisors, bourgeois managers, capitalists, and, eventually, assembly lines and Taylorite efficiency experts. As Marx showed so convincingly, these features of social life were alienating; they placed into external centers authority that had previously belonged to the self.

Although Cartesians wished to conceptualize living things as reaction mechanisms, and despite the role of Pascal and Leibnitz in the invention of calculating machines, we are on entirely different ground now. There is nothing natural about the robot, nothing inevitable about the path this fable has taken in development. Clearly, we could have formulated other strategies for coping with opaque, mystifying computer technology. In another age, this ensemble of techniques could have emerged differently. The Age of Enlightenment, for example, might not have needed to embody the computer at all, had that era witnessed the development of mechanized calculation. We now celebrate the nineteenth-century Difference and Analytical Engines of Charles Babbage as precursors to the computer, and Babbage's machines reflected the factory-machine images of the Industrial Revolution. Other metaphors for machine thought were quickly subsumed, however, when the computer-as-person possibility emerged in this century.

The shift of control metaphors that accompanies the emergence of computers then becomes more than just another representation. The displacement of people by machines raises a dizzying, discomfiting possibility, articulated by Jean Baudrillard. Robots are "the ultimate and ideal phantasm of a total productivist system," the expression of the goal of automation that is, in turn, what made both capitalism and Marxism possible in the first place. But that goal symbolizes a "self-devouring" system, in Baudrillard's phrase, since the technology making that system possible cannot be present at its ultimate fulfillment; people "are necessary for any system of social control and domination."²¹ But the system of domination also contains its own self-devouring element, in the replacement of workers.

The economic realm critical theorists hoped would still provide total-ity dissolves when the robot obtains the status of master metaphor *and* defender. The robot completes the detachment from any "real" econom-

ics, the demise of which Baudrillard had already foreseen. Simulated arms and legs do the “labor.” Fuse-changers and oil-can carriers absorb the displaced *labor value* (once engineers complete the robot’s design), but they too are quickly and inevitably automated. The machine-like boredom and terror of work is finally just given back to the machines. Disorganized efforts to blame Asians for our unemployment only disguise the underlying terror generated by these shifts. This time, unemployment may actually be terminal, not cyclical.

In a typical Baudrillardian twist, politics itself is what finally disappears when work has gone. All fables of objective interests at war with one another slip away, replaced by (a finally pointless) technological management. Since the beginning of the liberal era, the goal of a productive efficiency has been the code for progress in general. But if automation means the displacement of people still needed to maintain the symbolic drive to efficiency, Baudrillard’s possibility—a code for disappearance—exists. Industrial (or literary) production could now simulate a process of humanity devouring itself, a far more perverse possibility than any Marx ever entertained. As strange as it is, this outcome mirrors the nuclear outcome and the Frankenstein plot. At the end, people observe that their best and brightest products had been canceling futures all along. In such a context, the resistance to the “nihilism” of Baudrillard, Foucault, and Nietzsche could be simple self-deception, another simulated, intimate negation. As I will suggest in a later chapter, the further push by Star Wars toward this odd outcome (in the name of promised safety) only completes the scene.

To be sure, the robot *is* sometimes portrayed as a simple, old fashioned oppressor—as alien—in the sense of an externalized foe of the interests of class or liberty. That portrayal betrays its own peculiarity, however; such roles are so atypical that fictionalized accounts almost always call such machines androids to mark the difference. Real robots act as mirrors or metaphors of paradoxical, calculating independence. The key to what makes a robot, once designers (who also can now be automated) create a body, is the device’s internalized discipline. Science (and fiction) writer Isaac Asimov summarized this discipline early on, in the “Rules of Robotics,” which—he takes pride in reporting—have become an enduring subtext of scientific robotics, as well as of science fiction. The rules are hierarchical and general, and they are *rules*, not instructions. The robot must calculate, and temper its responses accordingly.²²

The 1987 film *Robocop* was structured entirely around the interplay of these rules, as implemented by a corporatist police/state onto the half-man, half-robot title character. Robocop—and his generation of fictional and nonfictional relatives—had to be independent, but also had to incorporate self-control. Any robot who goes awry does so, by definition, when its ability to monitor itself falters (or, in Robo’s case, when he finds

himself in a contextual double bind with respect to the rules). That is the source of authority that encompasses them, imposed by their programmers, but also imposed by our patterns of thought and speech on the topic of agency and technology. This byplay makes movies such as *Robocop* for a simple, if spectacular reason. This is now our (human) authority, too.

My reading implies a record of misunderstanding. The threat is not that robots would become so successful as to displace humans, but that humans would unproblematically simulate their robotic mirror. Put another way, if we could get all the robots to behave well, we would not be stunned to discover that they were still robots. Absorbed by nervous defensiveness, however, we might not notice how much like them we had already become. We also should remember, however, that the special status of robots does not reflect a simple, empirical functionalism. Hopes and fears about robots and computers continually race ahead of what these things actually do. That is to say, this status is characteristically fictional, or mythic.

Critic Hubert Dreyfus is at his most persuasive when he argues that computers cannot be embodied and hence are incapable of intelligence in any meaningful sense. But Dreyfus's judgment has been an unpopular one, hardly phasing even those who best know this technology. As Dreyfus notes, AI scientists have continually acted in a manner unlike more cautious and more traditional scientists. These new scientists have always been promoters, too. They have routinely made impossible promises, and have exaggerated their successes; time lines become almost entirely fictional. Even the title of their discipline, "artificial intelligence," is ambitious and rhetorical, and their experiments have carried such grandiose names as the "General Problem Solver."²³ AI science seems only recently to have discovered the tentativeness that usually characterizes scientific talk. It is as if the opacity of computers has influenced even those people most familiar with them. As was also the case with the alchemists (whom Dreyfus calls the precursors of the AI scientists), the opacity of the objects of their research reminds these scientists that everything is possible.

There is another way to understand these failures, and this way leads toward the linkage of robots, computers, and bombs that I am trying to evoke. One suspects that the failures have been strategically useful, undercutting perceived danger and reassuring us of some intrinsic human worth. Luckily, as we say, these things never seem to work right. This strange reversal of the cult of efficiency and functionality should be a clue. Trying to use this clue, we may begin to suspect that the robot is a kind of code, a symbolized reality in which function is somehow reversed. In *Robocop*, one corporate faction treats a spectacular robotic failure as

hardly more than routine; if the failure contains enough spectacle to engage contractor interest, only more orders for upgrades and spare parts will follow.

Even while *Robocop* was still showing in the nation's theaters, the "news" confirmed the fiction. A nationally broadcast radio program featured an interview with an anti-Pentagon lawyer who reported on the attitude of defense contractors; "The attitude is, you won't ever have to use these things. And if you do, it doesn't matter."²⁴ This attitude offends the activist lawyer; things should *work*. But the attitude he reports is an implication of nuclear deterrence. Others have been clearer on the issue of functionality, but their tone is almost always exasperated. Seymour Hersh reports that the issue first arose when the United States planned to install Pershing IIs throughout Europe in the early 1980s. Reports that the missiles might not work did not matter. An Assistant Secretary of State for European and Soviet Affairs told a staff meeting, "We don't care if the goddamn things work or not. . . . After all, that doesn't matter unless there's a war. What we care about is getting them in."²⁵ The Pershing was more important as a sign of European cooperation (or submission) to Reagan weapons deployments than as a sign of destruction.

As twisted as this reversal is, it also should be familiar, embedded as it is in the reverse logic of nuclear deterrence, where things routinely exist in order that they *not be used*. Amidst such an inverted logic, competence has new angles. Diane Rubenstein has noted how well "giddy incompetence" served French foreign interests in the Greenpeace affair.²⁶ Such reversals should suggest that we are gazing at a highly symbolized scene, perhaps even a simulation, to follow Baudrillard's suggestion. Perhaps robots are the embodied stand-ins for a power that absents itself, perhaps because scrutiny of it might be dangerous—to us, but also to its hold on us. Robots could be the simulations that provide as much focus as a simulated political life will need. And they might not be entirely humorless in this role, teasing us citizens of the "real world" now and then about our convictions that "things have functions," "exist to be used," and can be known and judged in that simple context of use.

Desire, Absence, and More Control

The psychological interventions of Jacques Lacan have been appropriated by postmodernists to help raise issues of metonymy and desire as substitutes for the naturalistic concern for metaphors and symbols. Lacan's work is difficult and resistant to this sort of "use," but it seems possible that some of his concerns might help untangle these odd, coded opacities. The resistance exhibited by computers through opacity, the fascination with which we nonetheless react to them, and the "search for self"

grafted onto them by AI scientists—all of these could be reinterpreted.²⁷ In Lacanian psychology, this fascination and lack raise questions of desire. This opacity signals more than “lack of clarity,” or imprecision, but it does not necessarily signal metaphysics. Lacanians suggest another possibility; given the centrality of desire and the unlikelihood of its fulfillment by this opaque set of things, we are embroiled in the psychology of absence. Metonymy is the rhetorical trope of absence and desire, by which we substitute one word for another, more literally appropriate choice (or the word for a part stands for the whole). For Lacanians, the name change follows a trajectory; metonymy forms a procedure in which causes express effect, contents express container, or part expresses the whole.²⁸

This is my claim, then, in response to every attempt to strain meaning from these opaque machines: *the computer and the robot are the metonymic processes we use to deal with the nuke*. If the nuke has seemed unspeakable, then, we may have been using a metonymy. The computer and the robot—parts, implements, and artifacts of nuclearism—compose a Lacanian trajectory of desire. Displacing questions of censorship (and transgressive responses to its prohibitions) with possibilities of mastery, assimilation, and accomplishment, we deal with Lacan’s “desire for something else,” with metonymy.²⁹ Programming the computer or robot, we have controlled the (uncontrollable) bomb. Familiar with our personal silicon, we simulate some kind of familiarity with remote isotopes controlled by forces inaccessible to us. We have walked, seemingly fearlessly, into a (silicon) valley of doom prohibited to us.

As Deleuze and Guattari emphasize, this displacing process continually breaks away from the ego, canceling it with several identifiable processes.

The law tells us: You will not marry your mother, and you will not kill your father. And we docile subjects say to ourselves: so *that's* what I wanted! . . .

There we have a . . . displacement. For what really takes place is that the law prohibits something that is perfectly fictitious in the order of desire or of the “instincts,” so as to persuade its subjects that they had the intention corresponding to this fiction.³⁰

Deleuze and Guattari repeatedly use that exclamation—“So that’s what I wanted!”—to bring a metonymy to the fore. This process can be applied to our discussion of nukes. Faced with the Law, the egoistic expression of values, we exclaim, “nobody could possibly want nuclear war.” But, unmistakably, war preparations are everywhere. The reverse logic of deterrence—the weird mission of preparing nukes never to be used—comes home to roost. Desire breaks out of the censorship planned for it.

Even if nobody wants nuclear war, people are acting as if they do. So *that's* what I wanted! In this way, the simple repression of nuclearism that liberal humanism tries to turn into a first value, a base agreement, twists out of control. A metonymy forms under the sign of the exclamation heard constantly in American political talk over the last forty years: "Nuke 'em!"

The robot, then, may be the ultimate nuclear-age metonymy. We "desiring machines" (as Deleuze and Guattari refer to modern selves) produce a mirror image onto which these desires and displacements can be grafted. Desire is a feature of bodies, so we give the nuke a body. The opaque machine—a machine-without-parts—becomes a body (in Deleuze and Guattari's schema, a "body without organs"). Rather than making the leap to conclude that all the puzzlement of this new technology must imply a meaning at the core of human life, we could turn the equation around. We could reinterpret the projects surrounding electronic technology. And when we do that, we can hardly miss that a rage for embodiment has been accumulating. Computer partisans, critics, and popular artists have all used this embodiment as a way of dealing with technology; computers had to be embodied.

Sometimes we can glimpse this embodiment project right in the middle of the computer-ontology camp. When the MIT authors of the educational programming "language" LOGO sought to enhance learning by devising an easily accessible entry into a sophisticated computer language, they began with a robot. Students learn LOGO by manipulating a "turtle," which is either a mechanical robot that moves according to programmed orders, or an electronic representation of such a device moving on a video screen. Teachers encourage those students who have difficulty with this "turtle geometry" to plan turtle movements by moving their own bodies and reflecting on those movements. Watching LOGO students in their dance of angles and steps, we begin to see this conjunction of computers and robots.³¹ Bodies have been appropriated and the opacity begins to clear.

In short, all robots—fictional, pedagogical, or industrial—enhance the meaning of otherwise opaque and elusive machines by bestowing on them an identifiable (if still amazingly flexible) embodiment. Educators confirm what horror-movie producers, editors of business magazines, and toy designers also know; robots are tremendously popular. Surely, this fascination with "mere tools" represents an attempt to reflect upon something that resists more direct consideration. Specifically, when we grant the mythically opaque computer a body, we are addressing political concerns. We know that bodies are subject to control.

In this context of body-and-control, the robot gives play—representation, even if in disjointed, odd images—to a breakout of desire. It is our very own "second death"; having set the robot up as our double, we could gaze at its

demise. As Deleuze and Guattari emphasize, desire does move in that direction: "Desire desires death also."³² Humans do *make* robots, but it is a hyperproduction. Embodying this technology, we have produced a projection screen onto which we can display our version of the production-desire saga. In a rush of postproductive enthusiasm, we finally surpassed Lacan's mirror stage of development, but only by externalizing our ability to project. Suddenly, it is the robot that desires the nuke; we have become victims of autonomous technology, without wanting to admit that this is possible. But the displacement is still functioning; gazing at the robot, we are still looking at (through) a mirror.

The consequences of this robotized death wish are multiple, and I will only review two, implying some range of operation. In the first, the displacements of desire map onto whole areas of public policy that otherwise seem far away from the nuke, connected only through the indirect but all encompassing linkage of fiscal constraints. The second poses consequences more personal in character, playing out Deleuze and Guattari's "So that's what I wanted!"

In the first case, Dean MacCannell has added to nuclear criticism's understanding of power in a context dominated by "attempts to bring an imagined future moment, a moment of awful destruction, to bear upon the present."³³ After reviewing familiar dominations, MacCannell identifies a possibility that would truly resolve this dilemma. "Taking Lacan's suggestion seriously and treating macrosocial arrangements as expressions of collective unconscious desires, beneath the surface of fear, the supposedly unthinkable prospect of millions of instant deaths . . . one can find evidence of a growing desire to experience the bomb."³⁴ At the margins of contemporary life, we can witness another side of the displacements and absences I have been evoking. Self-control, loss of will, and calibrated, calculating minds are only part of the postmodern setting. The other side of that self-control—an erotic side—is the urge to experience the bomb. It could be that, at some level, we have already started to develop a surprising response to Stanley Kubrick's injunction that we "stop worrying and learn to love the Bomb."³⁵

MacCannell argues that one could interpret contemporary culture as thoroughly infused with an unprecedented death wish.³⁶ We are preparing for nuclear suicide. In his central example, the obviously negligent treatment of American cities finds a meaning—through some poorly comprehended political process, we are preparing them to be offered as sacrifice. His argument is a reminder of how broadly nukes act on us. By extrapolating our criticisms, consciously divorcing them from the discourses they intend to critique, we can start to identify the effects of this culture.³⁷

This represents a rhetorical way to represent the implications of accumulated policy decisions of the nuclear age, including policies seemingly unconnected to nukes. MacCannell finds in this approach a way to articulate the “death wish” many nuclear opponents have cited in less explicit ways. “If we only go so far as to maintain the poor in the cities, we are in a no-lose situation. It is America of the Hollywood happy ending after all. If the missiles come, they will wipe out all our problems. If they do not come, [capitalism] can once again flourish.”³⁸

In the second case, displacement finds a path for desire in personal, psychological terms. In the 1986 film *Desert Bloom*, displaced desires of every sort (from incest to genocide) threaten to burst out of the 1950s Las Vegas–*Atomic Cafe* setting.³⁹ It would be trivial to say that these warring desires make the characters of this drama “unhappy,” or that they would be better adjusted if they docilely accepted the nuke. More to the point is that these displaced desires collide and permeate lives that come to focus on the most apocalyptic violence at hand—the nuke tests beginning just outside of town. Disarmed, the characters displace catastrophe onto unknown and absurd possibilities somehow promised by the tests (and then “confirmed” by small town rumors, nuke drills at school, and the back-drop of the Korean War). When the blast happens, a radio announcer breaks the silence with the truth; “Well, the A-Bomb went off and we’re all still here, folks.”

Near the end of the film, the storyteller (thirteen in the film, but telling the story as a reminiscence from later in her life) tells us that her abusive, alcoholic, bigoted stepfather would do better after the awful events of 1951, but given what has transpired, we can only wonder what “doing better” would mean. Deleuze and Guattari offer a suggestion:

Absorbed, diffuse, immanent death is the condition formed by the signifier in capitalism, the empty locus that is everywhere displaced in order to block the schizophrenic escapes and place restraints on the flights. The only modern myth is the myth of zombies—mortified schizos, good for work, brought back to reason.⁴⁰

The Darkest Code

The robot—this symbolic mirror that so attracts our gaze—has, in turn, helped us reconstitute ourselves. The calculating machine that moves and “manipulates objects” is no mere toy or diversion; it is more like self-description. Perhaps the first characteristic we recognize is this perpetual calculation, the commitment to metaphors of decision making that rely on constant, incremental comparison of binary possibilities. But we also can suspect, in the occasional gaps made possible by art or insight, that

we have been flattened (without a blast) by the nuclear age, that we have long since become the zombies Deleuze and Guattari evoke.

A clear understanding that the dangers are “real” could yet mobilize responses. But, as critics have charged, this postmodern insight into the disappearance of “real” responses *is* so serious an occurrence that politics is debilitated. The criticism of Foucault—that he makes politics disappear—turns out to be right, but it wasn't Foucault's doing. Arthur Kroker and David Cook have collected several of the keys to this debilitation:

We are deep into Nietzsche's cycle of the 'in vain,' the downside of the cycle of cynical power, a time of the most intense disenchantment with the psychology of sacrifice, that, in medieval times, went under the sign of *acedia*. *Acedia* meant a sudden loss of the will to go on, a mutiny of the living body against a cynical power. Baudrillard tells us we're deep in the cycle of *acedia* again and the certain sign of its presence is what Barthes described . . . as the contagion of “panic boredom” which spreads out everywhere. . . .

Consequently, while Marx may have analysed capitalism in its bullish phase, Baudrillard's thought begins with the instant inversion of the 'circuit of capital' into the cycle of disintegration, exhaustion, decadence, and 'viciousness for fun.'⁴¹

Thus, while Marx “analysed capitalism in its bullish phase,” Baudrillard began by inverting “the 'circuit of capital' into this cycle of disintegration.” This amounts to “a desperate search for a revival of the real (real people, real values, real sex).” The “desperate fascination with the real” that marks the current period arises “because we live with the terrible knowledge that the real does not exist anymore, or, more precisely, that the real appears to us only as a vast and seductive simulation.”⁴²

Even if we join postmodernists in their despair of finding a political posture that will surpass such panicked, bored entrepreneurship, we can still go further in setting this context. Venturing away from that “desperate fascination with the real,” we might yet begin to describe our situation in terms that fit, thus deriving some solace from this act of describing. The robot could emerge as an odd but compelling misrepresentation (a creative misreading) of our very contemporary selves. It is a misrepresentation only in the sense that it seems to promise the undeliverable, and even that sense is undermined when we notice the grid of desires in which the nuke is lodged. At its simplest level, the robot-as-representation only repeats a defense of humanity, in the classic terms of humanism. The liberal and humanist claim is that people are still responsible for what computers do; we have no “revolution,” but rather another call for contemporary society to exert its values, to choose its future consciously, as it confronts yet another technology that has the capacity for either benefit or disaster. These “mere tools” have no

more meaning than that we choose to give them. Agency is not at stake. The computer and the robot are not autonomous; they take orders.

This objection is more a reminder of our uncertainty about human control of technology than a reassurance. Having situated the desire to experience the bomb—as well as the routine adjustment of human lives to approximate the robotic—we can identify this technology as a different kind of tool. More than a reminder of Jefferson's dumbwaiter or Locke's blank slate, these machines evoke Baudrillard's mirror. The robot is our special mirror, a reflector we can send into the inferno, with its camera rolling until it melts, Dali-style.

In Huyssen's interpretation, Fritz Lang's *Metropolis* implies that the conflict of labor and capital could be solved by technology, even if the conflict proceeds on a highly metaphorical, mythical level of fear and hatred.⁴³ We could find similar connections with the nuke. The robot brings the horror together with the hope of controlling (always admittedly uncontrollable) horror. The postnuclear robot is a manufactured body; watching it, we are practicing the gaze that (as Foucault explained) now denotes control. True, the robot could overwhelm the observer. But that is the test we wish to arrange for ourselves.

The humanist insistence that we conquer this situation with expressions of will informed by value fails to comment sufficiently on the production of that choice. There are activists who understand the absurdity of Nancy Reagan's "just say no" in the context of drug use, but do not notice that they replicate that injunction when they say, in effect, just say no to nukes. Political response must be more than will; issues form important combinations, even if the linkages are not necessarily conspiratorial or structuralist. Having constructed this "choice," it will not do simply to choose.

At the margins, critiques such as Kroker's make possible a nostalgic stance of alienation. Models for unalienated responses must be created, and the computer-as-bomb presents such an opening. Rather than seeing each political question as an opening for humanist complaint, we could move on—light on our feet—to take apart another form of contemporary authority. Without a doubt, this critical activity will have political consequences.⁴⁴ The opponent's role is to continue criticism; each event can be posed as a fascination, not just a curt dismissal. Fascination keeps questions open, allowing criticism to continue. In the case of computers, we have widespread social experience with just such a displacement of alienation with engagement. From the position I have tried to evoke in this book, the privileged stance is proximity or engagement, rather than critical distance. In these terms, then, the uncertainty of our talk about computers has to do with our posture toward familiarity with objects that have been lodged in a discourse of renunciation or taboo. We have

another “guilty pleasures” problematic here, one that is as political as it is psychological or literary.

When Birrell Walsh juxtaposed two metaphors for computing, he was exemplifying just such an approach:

To those who don't like computers, these machines seem to be a kind of monkey trap—a bottle with fruit in it. The monkey reaches in and grasps the fruit, but with the fruit in his fist he cannot get his hand out. The hunter catches him because the monkey is unwilling to let go of the fruit. It is not our hand that we put into the computer, it is our attention. . . . These machines hold attention like no prior machine. To those of us who love these machines, they are a portal into . . . a puzzle-world, full of possibilities. . . . We agree we are absorbed.⁴⁵

But, Walsh goes on to say, we could class this absorption as obsession and ecstasy, an altogether different context than traps and medicalized addiction. It becomes obvious that the real source of the critique levied against this engagement was an apprehension about an intense involvement with learning. My characterizations in this chapter form an attempt to shift the critical enterprise; the pervasiveness of the bomb can be acknowledged and related to actual human practice, and the appropriate response becomes critical engagement—even risk of obsession—mediated by “humor, vice, and the attempt to manifest vision.”⁴⁶

Rather than assuming that the spread of technology (and its multilayered opacities) portends meaning, we might find out more about both the machines and ourselves by emphasizing the puzzling opacity rather than the meaning. The leap to metaphysics is not necessary, and there are surely good reasons not to make it (as Derrida argues so convincingly). Rather than seeing metaphysics, we might let technology now remind us how complete the demise of any fundamental “essence” already is. Here is a phenomenon that *obviously* has no nature, except that it spreads, absorbing whatever it finds adjacent to it.

Instead of moving too quickly to denunciation, we could insist on continuing to practice opposition. If this insistence is based on a moral judgment, it still manifests itself in very distinctive intellectual approaches. The radically constituted dimensions of the situation could be (continually, radically, newly) demonstrated for “how they work,” rather than for “what they are.” That's deconstruction.